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USDA/USAID PAPA

INITIATIVE FOR IMPROVED AND HARMONIZED AGRICULTURAL STATISTICS AND SANITARY-PHYTOSANITARY REGULATORY INFRASTRUCTURE IN CENTRAL AMERICA

FINAL PAPA REPORT 2005-2011

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LIST OF ACRONYMS

APHIS	Animal and Plant Health Inspection Service
CADEXCO	Costa Rica Export Chamber
CAFTA-DR	Dominican Republic – Central America Free Trade Agreement
COEXPORT	El Salvador Export Corporation
DR	Dominican Republic
EPA	US Environmental Protection Agency
FAO	Food and Agriculture Organization of the United Nations
FAS	Foreign Agricultural Service of USDA
FECAEXCA	Central American, Panama, and Caribbean Federation of Chambers and Exporters' Associations
FDA	US Food and Drug Administration
FSIS	Food Safety and Inspection Service of USDA
FTA	Free Trade Agreements
GAPs	Good Agricultural Practices
GMPs	Good Manufacturing Practices
HACCP	Hazard Analysis and Critical Control Points
IBII	Biotechnology and Industry Innovation Institute of the Dominican Republic
ICD	International Cooperation and Development Program Area
IDB	Inter-American Development Bank
ILGUA	Guatemalan Dairy Industry
IPPC	International Plant Protection Convention
ISO	International Organization for Standardization
LANAR	National Residue Laboratory of Honduras
LAVECEN	Central Veterinarian Laboratory of the Dominican Republic
LIMS	Laboratory Information Managements Systems
NPPO	National Plant Protection Organizations
OCBD	Office of Capacity Building and Development
OIE	World Organization for Animal Health
OIRSA	Organismo Internacional Regional de Sanidad Agropecuaria
PAPA	Participating Agency Program Agreement
PIPAA	Agriculture and Environment Integral Protection Program of Guatemala
PCR	Polymerase Chain Reaction
RED	USAID Rural Economic Diversification Program
SPS	Sanitary and Phytosanitary
SSOP	Sanitation Standard Operating Procedures
TCB	Trade Capacity Building
UNGAPESCA	Livestock Union of Peten
USDA	U.S. Department of Agriculture
USAID	U.S. Agency for International Development
WTO	World Trade Organization

I. Executive Summary

Since 2004, the US Department of Agriculture's Foreign Agricultural Service (FAS) as collaborated the US Agency for International Development (USAID) to deliver sanitary and phytosanitary (SPS) systems capacity building to countries participating in the Dominican Republic-Central America Free Trade Agreement with the United States (CAFTA-DR).

In order to be most effective, FAS employed an SPS Advisor in the region whose role was to link directly with national governments and provide guidance on priority setting and activity development, thus activities addressed concerns of highest priority to countries and built upon one another to achieve success. Based on information provided by the advisor, FAS enlisted the assistance of a wide set of regulatory officials and land-grant university expertise to implement highly targeted interventions to train individuals and support enabling regulatory environments. For example: the U.S. was imposing a larger number of detentions and in some cases rejections of horticultural products from the region because of excessive pesticide residues. To help alleviate the problem, FAS called upon experts from the US Environmental Protection Agency EPA, the US Food and Drug Administration (FDA), the University of Maryland, and Texas A&M University to deliver a set of targeted interventions, including: good agricultural practices training for farmers to learn the proper use of pesticides so that their products were safe for domestic and international consumption; training to improve national pesticide residue laboratories' diagnostic capabilities, and technical assistance to educate government officials regarding safe, low-risk pesticides as well as providing support in developing legal frameworks that establish guidance the use of pesticides in domestic production. As a result, exported horticultural products from the region now face far fewer detentions in the United States than previously. This approach was used across the board to address issues in animal and plant health as well as food safety systems throughout the region.

In addition, whenever possible and appropriate, FAS leveraged other sources of funding and/or expertise through collaborative relationships with entities such as the Organismo Internacional Regional de Sanidad Agropecuaria (OIRSA) and export organizations such as the Central American, Panama, and Caribbean Federation of Chambers and Exporters' Associations, (FECAEXCA), the El Salvador Export Corporation (COEXPORT), and Costa Rica Export Chamber (CADEXCO).

With the above described approach, FAS has implemented more than 150 activities. Over 4,400 individuals from national governments and private sectors have been trained representing more than 900 organizations. To date, about 8% of these organizations have, or are considering, implementing institutional changes based on information garnered through US government assistance. In addition, 27 policy reforms have been analyzed of which 25 have been presented for legislation/decreed and adopted as law.

The approach has resulted in an estimated \$210 million increase of agricultural exports from the region to the United States that are directly linked to the technical assistance and trainings provided under the PAPA; this represents 15% of total agricultural export growth from CAFTA-DR to the United States.¹ More specifically, exports of tomatoes and peppers since 2006 now total \$56.3 million; dairy products exports have jumped \$26.5 million, approximately 51% over what is estimated these exports would have been should no assistance been provided; and both Nicaragua and Honduras have achieved meat equivalency with the United States, allowing them to export beef products estimated at \$103 million annually. In 2011 exports of meat from these two countries are up 42% over 2010 and are expected to reach \$137 million

In addition, the overall regional regulatory infrastructure has improved through advances such as harmonized microbiological and pesticide residue standards for food and laboratory certification. This has enabled inter-regional trade and increased competitiveness throughout the region.

¹Total agricultural exports from increased 51% in 5 years (\$2.7 billion in 2005 to over \$4.1 billion in 2010); Activities performed under the auspices of the PAPA directly contributed 15% of this increase.

II. Background

In 2003, the United States entered into negotiations with five Central American countries (Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua) and the Dominican Republic to create the Central America-Dominican Republic Free Trade Agreement. Unique in comparison with other Free Trade Agreements (FTAs), CAFTA-DR was the first FTA to have a Trade Capacity Building (TCB) chapter, including TCB for sanitary and phytosanitary systems. As part of the negotiations, seven regional SPS priorities were identified. These included:

1. Integrated SPS regulatory information systems
Allow government and industry personnel (with remote and automated access) to regulate import and export requirements for plants, animals, and animal products.
2. Upgrade laboratory infrastructure and analytical methods capability
Provide laboratories with the capability to analyze product samples for compounds or organisms not included in ordinary testing programs.
3. Strengthen national WTO/SPS enquiry points
Educate FTA partners on the requirements of the SPS Agreement (the notification authority).
4. Develop animal health, inspection and sanitary standards for animal products
Assist CAFTA partners in developing a regulatory system that would create food safety standards such as: Hazard Analysis and Critical Control Points (HACCP) program components, Sanitation Standard Operating Procedures (SSOPs), Good Manufacturing Practices (GMPs), and utilize HACCP-based audit techniques.
5. Harmonize risk assessment methodologies and development of risk mitigation methods
Harmonize risk assessment procedures with World Organization for Animal Health (OIE) and International Plant Protection Convention (IPPC) guidelines so that partners will be capable of identifying pests or pathways, assess and manage pest risk.
6. Traceability
Develop a system that provides traceability of agricultural commodities from the farm to table.
7. Coordination and participation in international standard-setting organizations

In 2004, the International Cooperation and Development Program Area (ICD, now the Office of Capacity Building and Development - OCBD) of U.S. Department of Agriculture's Foreign Agricultural Service (USDA/FAS) entered into a Participating Agency Program Agreement (PAPA) with USAID, which leveraged USAID funding for USDA's technical expertise in SPS initiatives.

To take full advantage of the CAFTA-DR and to increase agricultural trade between the United States and the CAFTA-DR countries, the Central American partners needed to build effective regulatory systems, define export opportunities, and comply with World Trade Organization (WTO) rules on agricultural products. Thus, the purpose of the PAPA has been to help participating countries be internationally competitive by providing government-to-government technical assistance on SPS trade capacity building initiatives. Activities were designed to strengthen three thematic areas: animal health, plant health, and food safety (including laboratory capacity) systems. The goal was to assist the CAFTA-DR countries' governments meet international SPS standards. This technical assistance allowed CAFTA-DR countries to increase their global agricultural competitiveness by helping them to meet international standards.

USDA has maintained close working relationships with Ministers of Agriculture and Health and SPS experts to identify specific needs in these thematic areas. USDA SPS trade capacity building efforts have been critical to CAFTA-DR partners meeting FTA and multilateral commitments and becoming more competitive in the international marketplace. To supplement the SPS capacity building program under this PAPA, when possible USDA has leveraged other expertise and/or funding sources to carry out additional key activities. For example, in FY08 and FY09 FAS worked with the Inter-American Development Bank (IDB) to provide U.S. regulatory expertise for SPS activities. In so doing, USDA was able to complement \$4.4 million in IDB funding designated for SPS training in CAFTA-DR countries. Additionally, USDA coordinates approximately \$100,000 annually of in-kind contributions from other U.S. regulatory agencies such as the EPA and the FDA.

III. Results/Impact Detail

As part of establishing the PAPA USAID and USDA agreed on a set of measures by which to monitor and report regular progress. The cumulative results for these measures are found in the next 5 sub-sections.

Performance measures

1. Number of policy reforms analyzed with USG assistance	27
2. Number of policy reforms presented for legislation/decreed as a result of USG assistance	26
3. Number of institutions/organizations undergoing capacity/ competency assessments as a result of USG assistance	94
4. Number of institutions/organizations making significant improvements based on recommendations made via USG supported assessment	94
5. Number of individuals who have received USG supported short- term agricultural enabling environment training	4439*

*Totals by year: 571 from FY06; 1149 from FY07; 1392 from FY08; 814 from FY09, 413 from FY10, 94 from FY11

Laws Passed

Laws governing SPS regulatory systems are critical in supporting a government's ability to provide oversight through monitoring and inspection services that lead to a safe food supply. These laws provide regulatory agencies access to places where food is produced and processed in order to inspect and ensure standards are being met. The stronger the legal framework, the safer the food is likely to be. Under the World Trade Organization's (WTO) SPS agreement, exporting countries are required to demonstrate that their food safety system is at least equivalent to that of the country to which they want to export; this includes the necessary legal framework governing food safety. Thus, strengthening these laws creates the opportunity for countries to access other markets and sell their products abroad.

Regional Legislation

The Central American Customs Union guides harmonization of standards in the region and recommends areas where regional laws should be adopted. One such law is the *Central American Union Microbiological Standards for Food*, adopted in 2009 as a result of technical assistance provided within the context of this PAPA. Harmonized standards provide Central America the opportunity to present themselves to the world as a united market much like the European Union. The legal framework supporting harmonization is necessary to help eliminate arbitrary decisions by

customs officials and ensure the free flow of goods within the region. Harmonization also increases trade activity external to the region because exporting countries need only meet one specific regulation rather than different regulations per country.

Laws Governing the Use of Pesticides

Laws governing the registration and use of pesticides are critical to the safety of domestic and international food supplies. Without these, both the health of farmers that spray the pesticide and the consumers that eat the produce are at risk. Use of dangerous pesticides also negatively impacts trade for many countries because their trading partners are unwilling to accept foods with harmful residue. Thus a legal framework that effectively monitors and enforces the use of different substances used in agricultural production can help protect the domestic, regional, and international food supply. With assistance provided as part of the USAID/USDA SPS capacity building project, Guatemala has passed two laws governing the use of dangerous pesticides, they are:

Law on Pesticide Registration, 2008

Law Prohibiting Methamidophos, 2008

Instituting the laws has had significant impact on small-holder farmers in Guatemala. Prior to the registration law, Guatemala's registration system did not provide adequate protection for the use of the dangerous substance *Metamidophos* which resulted in snow pea producers using it to such a degree the Food and Drug Administration (FDA) found it necessary to put snow peas on the U.S. automatic detention list. Snow pea growers were close to losing access to the U.S. market and 26,000 rural families' livelihoods were suddenly at risk. By passing a law that banned this substance, the country was able to get off the automatic detention list and as of April 20, 2011 all snow peas from Guatemala have access to the U.S. market without going through the rigorous process of proving that their pesticide levels are not beyond U.S. standards².

Guatemala further strengthened its legal infrastructure with the pesticide registration law that comes very close to meeting international standards, and has many characteristics that are present in the US law, especially the process for registering generics. This will provide added security in Guatemala that prohibited pesticides will no longer be available for purchase.

Laws Governing Meat Exports

Laws governing meat inspection and slaughterhouse conditions are an important step that must be taken for a country to be approved to export meat to the U.S. and internationally. As mentioned above, the WTO SPS Agreement states that an exporting country's food safety system must be considered equivalent to that of the importing country. The United States, through USDA'S Food Safety Inspection System (FSIS), grants countries equivalency on their meat system if they can demonstrate that their system provides adequate protection, this includes an adequate legal framework.

As a pre-requisite to meat equivalence, laws for inspection and slaughterhouse operation must exist, these include laws related to HACCP, SSOPs, and pre-operations.

In addition to the above, laws granting the United States meat equivalence were a precondition for CAFTA-DR to take effect. Thus, in order to participate in the free trade agreement all CAFTA-DR countries. Passing these laws became the one of the first steps countries needed to meet in order for the free trade agreement to enter force. With assistance provided under this project all six participating countries successfully passed these laws.

² Guatemalan snow peas are still subject to FDA inspection, but on a random basis; Guatemala snow peas are no longer held every time for testing.

Under the auspices of the USAID/USDA SPS capacity building project, the below laws related to meat equivalence have been enacted.

Costa Rica

- Law creating the mechanism for Equivalence, 2006
- Law Granting the US Meat System Equivalence, 2007

Honduras

- Law creating the mechanism for Equivalence, 2006
- Law Granting the US Meat System Equivalence, 2006
- Law creating the requirement of HACCP for slaughterhouse, 2006
- New Law on Poultry Inspection Requirements, 2007

Nicaragua

- Law granting the US Meat System Equivalence, 2006
- Law creating the requirement of HACCP for slaughterhouse, 2006
- New Law on Poultry Inspection Requirements, 2008

El Salvador

- Law creating the mechanism for Equivalence, 2006
- Law Granting the US Meat System Equivalence, 2006

Dominican Republic

- Law Granting the US Meat System Equivalence, 2007
- Law creating official inspection on slaughterhouses, 2008
- Law on meat inspection and Slaughterhouse operations, 2011

Guatemala

- Law creating the mechanism for Equivalence, 2006
- Law Granting the US Meat System Equivalence, 2006
- Law Declaring the University of San Carlos as the Official Reference Laboratory for Bovine Tuberculosis and Brucellosis, 2006
- Law on Declaration of Free Zones of Newcastle and Avian Influenza, 2009
- Law on meat inspection and Slaughterhouse operations, 2010

In addition, one law is pending – Law on meat inspection and Slaughterhouse operations in El Salvador.

Laws Supporting General SPS operations

In addition to laws that establish SPS regulations, laws supporting SPS infrastructure are necessary. These are critical to assuring systems are adequately funded and able to run efficiently. The work performed under this PAPA has enabled the passing of 3 such laws. The first is a Guatemalan law creating official inspection of food processing plants. Until this law passed in 2006 Guatemala did not require official inspection in food processing plants. This prevented the country from being able to export to many countries since official inspection is the norm and a international standard. Additionally, in 2007 El Salvador and Guatemala both passed Laws *Increasing the Fees at National Laboratory*. These ensure funding for supplies and personnel through establishing a fee based laboratory system.

Persons Trained 2005-2010

In the five year period encompassing this PAPA, over 4400 individuals received training in SPS related topics. The majority of these, 60%, represented the public sector and 32% were female.

Country	Participants	Public Sector	Private Sector	Female	Firms
Guatemala	848	476	372	289	238
El Salvador	724	390	333	260	208
Honduras	915	599	316	297	213
Nicaragua	1038	523	515	263	293
Costa Rica	295	232	63	122	32
Dom. Rep	711	506	205	245	89
Total	4531	2726	1804	1476	1073

Organizations making significant improvements

Seventy-five institutions/organizations have made significant improvements based on recommendations made by USG supported expertise. The kinds of improvements implemented included:

- improved physical infrastructure through
 - better plant design
 - the purchase of new diagnostic tools, pasteurization equipment, or refrigeration units;
- instituting improved practices such as
 - Good Agricultural Practices (GAPs) or pesticide management programs on farms
 - HACCP or GMP programs in processing plants
 - improved diagnostic methodologies in laboratories or processing plants

A list of organizations implementing such improvements follows:

<p>Dominican Republic</p> <ol style="list-style-type: none"> 1. Sierra Prieta Slaughterhouse 2. Commercial Agricola Slaughterhouse 3. Agropecuaria Santo Domingo Slaughterhouse 4. National Laboratory LAVECEN 5. Biotechnology and Industry Innovation Institute 6. Ministry of Agriculture Animal Health Division 7. National Plant Health Laboratory 8. La Romana Slaughterhouse 9. Grupo Alonso Slaughterhouse 10. Escuela Superior de Agricultura Laboratory 11. Greenhouse Producers Association of La Vega 12. Exportadora Campo Verde 13. Invernaderos de Jarabacoa 14. Horticola de Constanza 15. Ministry of Agriculture Plant Health Division 16. Ministry of Agriculture Food Safety Division 17. Ministry of Health Food Safety Division 	<p>El Salvador</p> <ol style="list-style-type: none"> 1. National Laboratory 2. Petacones Dairy Plant 3. Lactosa Dairy Farm 4. San Julian Dairy Plant 5. Metapan Dairy Plant 6. Morazan Dairy Cooperative 7. Sigma Foods Deli meat plant 8. Sigma Foods Swine Slaughterhouse 9. Ministry of Agriculture Animal Health Division 10. Ministry of Agriculture Plant Health Division 11. Ministry of Agriculture Food Safety Division 12. Ministry of Health Food Safety Division
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<p>Guatemala</p> <ol style="list-style-type: none"> 1. Ministry of Health National Laboratory 2. Ministry of Agriculture Animal Health Division 3. Ministry of Agriculture Plant Health Division 4. Ministry of Agriculture Food Safety Division 5. Ministry of Health Food Safety Division 6. Livestock Union of Peten (UNGAPESA) Slaughterhouse 7. Pacayal Poultry Processing 8. Procasa Beef processing Plant 9. Trebolac dairy plant 10. Chivolac dairy plant 11. Pasajinac dairy cooperative 12. Guatemalan Dairy Industry (ILGUA) processing plant 13. Glad Yogurt dairy plant 14. Xelac dairy plant cooperative 15. Cooperativa Cuatro Pinos 16. Agroexportadora San Juan 17. Agroindustria Legumex 18. Agro Exportadora Camana 19. Toledo Swine Slaughterhouse 20. Toledo Processing Plant 21. Delicarnes Slaughterhouse 22. Programa Integral de Proteccion Agricola y Ambiental (PIPAA) 	<p>Nicaragua</p> <ol style="list-style-type: none"> 1. Plant Health Laboratory 2. Ministry of Agriculture Animal Health Division 3. Ministry of Agriculture Plant Health Division 4. Ministry of Agriculture Food Safety Division 5. Pollo Rico 6. Avícola Hermanos Rosales, 7. Tip-Top Industrial 8. Avícola La Estrella 9. Camoapan Dairy Cooperative 10. El Masiguito Dairy 11. Queseria Benítez Dairy 12. Lacteos Matiguas Dairy 13. Coproleche Dairy Cooperative 14. La Montaña Dairy 15. Parmalact Dairy 16. Food Safety Laboratory 17. Ministry of Health Laboratory 18. San Martin slaughterhouse
<p>Honduras</p> <ol style="list-style-type: none"> 1. National Laboratory on Animal Health 2. Ministry of Agriculture Animal Health Division 3. Ministry of Agriculture Plant Health Division 4. Ministry of Agriculture Food Safety Division 5. CADECA poultry plant 6. Ministry of Health Laboratory 7. Continental beef plant 8. Kobs Dairy 9. Sula Dairy 10. Jutiquele Dairy 11. Prolaca Dairy 12. El boqueron Dairy 13. Lacteos Maria Isabel Dairy 14. Las delicias Dairy 15. La Casita Dairy 16. LANAR Laboratory 17. Empacadora C & D 18. Fundacion Hondurana de Investigacion Agricola (FHIA) 19. Honduran Plant Health Lab 20. Melonera Monte Libano 21. Plant Health Laboratory 	<p>Costa Rica</p> <ol style="list-style-type: none"> 1. National Laboratory 2. Ministry of Agriculture Plant Health 3. Ministry of Agriculture Animal Health Division 4. Pesticide Residue Laboratory

Collaborative Relationships

During the life of the project, USDA pursued collaborative relationships with regional and technical entities to lend additional sustainability and support to the overall SPS program. These entities included: OIRSA; FECAEXCA; COEXPORT; CADEXCO; USAID RED program Dominican Republic, Technoserve CAFTA Implementation program DR, FDA, and the Dominican Republic Ministry of Industry. Thus far these relationships have proven beneficial as follows:

- FDA: provided trainers for microbiology laboratory trainings and residue laboratory trainings at their cost.
- Technoserve provided guidance to Dominican Republic in meat inspection regulations.
- OIRSA: collaborated through the provision of technical resources, funding, or administrative support on several activities, including the Dominican Republic classic swine fever training; El Salvador classic swine fever training; regionalization and veterinarian accreditation training in Guatemala; pesticide residue training at the Honduran National Residue Laboratory (LANAR); veterinarian accreditation course in Nicaragua; zebra chip training held in Honduras; trips palmi technical assistance activity; and in a presentation on export procedures to the U.S. during the Nicaragua CAFTA-DR Fair cosponsored by USAID and the IDB AgroCAFTA project.
- COEXPORT & CADEXCO: co-funded the regional FDA labeling training in Costa Rica.
- Dominican Ministry of Industry and CADEXCO: co-funded the FDA Labeling activity in the Dominican Republic.
- COEXPORT & FECAEXCA: co-funded the regional low acid canned foods training in El Salvador.
- COEXPORT: organized a regional teleconference to expand the audience of the US dairy regulations training in El Salvador.

Additional funding leveraged to support activities during the five year period amounted to approximately \$340,000. COEXPORT, CADEXCO, FECAEXCA, and the FAS Emerging Markets Program provided these.

Narrative stories of impact

The Foreign Agricultural Service (FAS) has worked closely with the governments of Central American and the Dominican Republic since the signing of CAFTA-DR in 2005 to provide prioritized technical assistance for both the public sector and private industry. These activities have been part of SPS trade capacity building efforts as described under the FTA and enable countries to improve agricultural trade in the international marketplace. The collective impact of these activities has comprehensively supported SPS systems throughout the region as described below. In order to provide the most complete view of the impact of this body of work, successes have been classified into three sets of categories³, they are:

Movement toward Standards Harmonized with International Regulations
Achieve Market Access (including increased exports from the region)
Increased Productivity

MOVEMENT TOWARD STANDARDS HARMONIZED WITH INTERNATIONAL REGULATIONS

In order for CAFTA-DR countries to be able to exploit the benefits of participating in the global trade arena, they must first comply with international standards. Doing so will not only open markets outside of the context of the Free Trade Agreement and but will also harmonize Central American systems with one another – allowing for efficient inter-regional trade of high-quality, safe agricultural

³ Given the inter-relationship between these categories of success some of the impact bullets will appear in more than one location.

products. While much of the work FAS performed under in this area was country specific, every step an individual country has taken to improve SPS infrastructure has brought the region as a whole closer to harmonized standards; each of the below bullets documents specific progress toward this objective.

- Over the last four years USDA, with USAID funding, has provided technical assistance on FDA microbiological standards to the Central American Customs Union Committee on Residue Standards for Food; the purpose of the Committee is to harmonize regulations among all of the Central American countries as part of the Central American Free Trade Agreement that has existed since 1963. This assistance has resulted in the Committee adopting standard residue limits of pathogens on food that are in compliance with both FDA as well as with CODEX and passing a harmonized regulation called *the Central America on Microbiological Residue Standards for Food*. The new regulation standardizes maximum residue levels for over 95 percent of microbiological pathogens. USDA and USAID continue to ensure countries and small holders are able to meet such standards through training in good agricultural practices and good manufacturing practices targeting small producers, cooperatives, and processors as well as training national microbiology laboratory staff in pathogen diagnostic methodologies.
- In 2008 all CAFTA-DR participating countries formed a working group to harmonize laboratory procedures and standardize testing methods. With help from US experts, over 15 diagnostic protocols have been harmonized that meet internationally accepted standards within the context of this working group. With the help of technical assistance, officials wrote a law that is consistent with OIE and APHIS standards that regulate animal health testing methods.
- USDA, with USAID funding, has provided assistance specifically targeting the reduction of pesticide residues on snow peas through pesticide management programs in four Guatemalan cooperatives (Cuatro Pinos, Exportadora San Juan, Agroindustria Legumex, and Agro Exportadora Camana). As a result, the cooperatives have been able to prevent contamination and have been removed from FDA's "watch list"; as such, they have successfully exported snow peas to the United States for the last three months without any detentions. Prior to this assistance, pesticide residues were causing detentions of over 100 containers a year – putting over 26,000 farmers at risk of losing market access and corresponding incomes.
- An EPA expert worked closely with the Guatemalan Ministry of Agriculture, Pesticide Producers Chamber, and the Guatemalan Congress to develop a law on the procedures for registering pesticides in Guatemala. As a result, on Feb 26, 2010 Guatemala passed law 5-2010 on Pesticide Registration. This law comes very close to meeting international standards, and has many characteristics that are present in the US law, especially the process for registering generics. This will provide added security in Guatemala that prohibited pesticides will no longer be available for purchase in the near future.
- After technical assistance in pesticide registration and maximum residue levels, illegal traces of the insecticide methamidophos were decreased, reducing the amount of containers detained to less than 100 in FY10 from over 1000 in FY08. In addition, Guatemala passed a law banning the use of this toxic substance. In so doing, Guatemala has set an example for the rest of the region regarding standard use of pesticides.
- Training in diagnostic methodologies helped the Honduran animal health laboratory be able to successfully diagnose Exotic Newcastle disease using Real Time polymerase chain reaction (PCR) and is using that result as a reference for the entire region. This achievement will help Honduras and other countries testing for the disease to move toward equivalence which will allow for increased regional and international trade of poultry.

- As a result of technical assistance in animal disease surveillance and food safety, Guatemala passed a law, consistent with OIE and USDA Animal and Plant Health Inspection Service (APHIS) standards, regulating Poultry Plants Regionalization and Declarations of Free of Diseases in July 2010. This law is a step toward equivalence and meeting requirements for future Guatemalan market access within the region and the United States.
- Over the past 5 years, USDA has performed over 16 trainings to the National Laboratory for Residue (LANAR) in Honduras and provided technical assistance for an ISO audit. As a result, in April 2010, LANAR achieved ISO 17025 certification on salmonella and E.Coli testing procedures, certifying this lab as compatible with international standards.
- Good laboratory practices and diagnostic methodology trainings have helped Guatemala's National Laboratory for the Ministry of Health achieve ISO 17025 accreditation for salmonella testing procedures, certifying this lab as compatible with international standards.
- As part of the equivalence process, the Ministry of Health in Dominican Republic has signed an agreement with the Biotechnology and Industry Innovation Institute (IBBI) laboratory to be the reference lab for all residue testing on meat. This will allow the country to achieve the ISO 17025 certification necessary for a National Residue Program required to meet US standards for exporting beef.
- With the help of technical assistance in areas such as container inspection, maximum residue levels training, and laboratory diagnostics, detentions of fresh produce imported to the United States from the CAFTA-DR region, detentions have gone from over 6000 in 2007 to under 1000 in 2010 just from pesticide residue alone. In the DR alone detentions have decreased 88% from over 4000 in 2007 to fewer than 500 in 2010

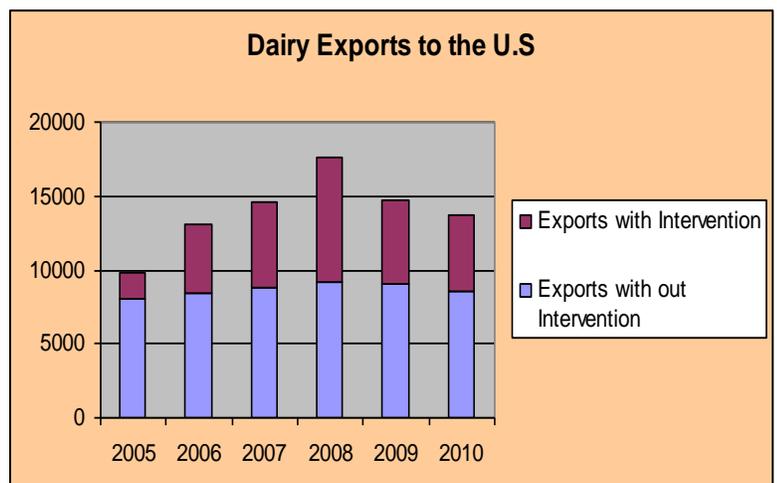
ACHIEVE MARKET ACCESS

With the view that increased trade activity creates jobs, increases incomes, and provides sustainable economic independence FAS targeted many activities specifically at market access issues impeding export opportunities in the region. Areas where particular impact has been seen are in horticultural products, dairy products, and meat exports. In addition, improvements within in SPS systems in each country have helped build a positive enabling environment for increased inter-regional and international trade. Some specific examples of improved market access are detailed below as actual exports and the realization of enabling environments.

Increased Exports

Total increase in dairy exports from Central America since 2005 is \$26.5 million of new sales. In FY 2010 export sales reached \$12.5 million.

- El Salvador Capacity building directed at dairy processing has increased the number of plants approved to export to the U.S. from 0 plants in 2005 to 4 plants approved in 2010. Exports have increased by 400% from 2005-2010. Plants approved for export are:
 - Petacones Dairy
 - Lactosa Dairy
 - La Salud Dairy
 - San Julian Dairy



- Nicaragua Capacity building directed at dairy processing has contributed to an increased number of dairy plants approved to export to the U.S. from 3 plants in 2006 to 16 plants in 2010. U.S. imports of dairy products from Nicaragua have increased an average of 61% from 2005 to 2011. Currently only 11 of these 16 are exporting to the U.S., the others are exporting regionally. Plants exporting to the US are;
 - La Completa
 - La Camoapan
 - La Masiguito
 - La Montana
 - Cooproleche
 - La Matiguas
 - San Antonio
 - Parmalat
 - Lacteosa
 - Ircasa
 - Queseria Benitez

- Honduras capacity building directed at dairy processing has increased the number of plants approved to export to the U.S. from 2 plants in 2005 to 8 plants exporting in 2010. US imports of dairy products from Honduras have increased an average of 62% from 2005 to 2010. Plants currently exporting are:
 - Sula Dairy
 - Kobs Dairy
 - Juiquele Dairy
 - Prolaca Dairy
 - El Boqueron Dairy
 - Lacteos Maria Isabel Dairy
 - Las Delicias Dairy
 - La Casita Dairy

New exports of meat to the U.S. since 2005 amounts to over \$127 million; for FY10 exports reached a new record of \$126.9 million.

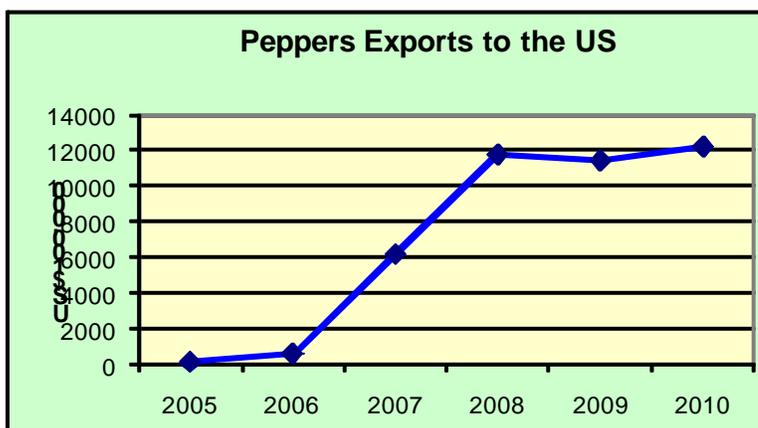


- Nicaragua has five beef plants exporting to the U.S. as well as to Asia

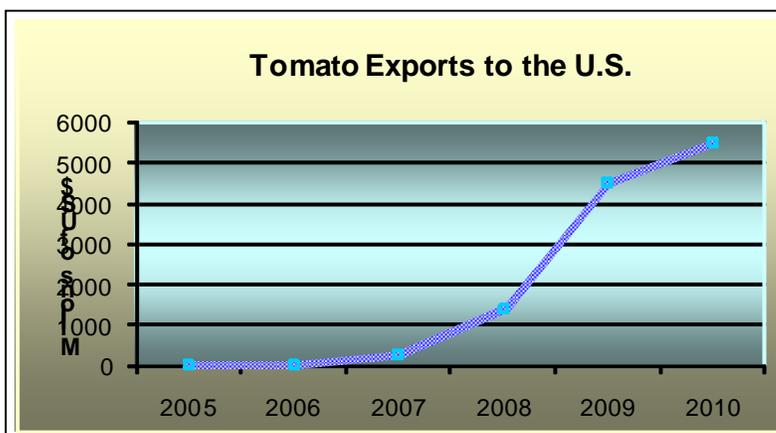
- The Nicaraguan meat industry estimates that the Meat Cuts Training contributed to an increase of revenue by \$30 per carcass. This represents an estimated economic benefit of \$24,000 a day, or approximately \$3 million per year since April 2006.
- After capacity building targeting deficiencies in Honduran processing plants, Honduras has recovered equivalence and two plants are now eligible to export meat to the United States. The Government of Honduras and industry estimate the economic impact to be \$5-10 million a year. Honduras now has two beef plants exporting to the U.S. and one poultry plant exporting to Asia.

Market access for horticultural products, specifically peppers, tomatoes, snow peas, and melons was either newly achieved or regained through targeted assistance.

- Total pepper exports in 2005 were \$126,000. Since mid 2006 the Central American Countries have exported \$42.4 million worth of peppers to the United States. In FY2010 pepper exports reached \$12.2 million. According to the Greenhouse growers association, over 45,000 jobs have been created in Guatemala alone thanks to the opening of this market.



- Over \$13.8 million of tomatoes have been exported to the U.S. since 2006. In 2010 tomato exports to the U.S. reached \$5.4 million.



- The Food and Drug Administration, has allowed Honduras to once again export melons to the United States after a Good Agricultural Practices training the PAPA and the plant implemented recommendations. The economic effect reached \$33.5 million for the 2009 season. In FY2010 Honduras exported \$32.3 million of melons to the United States.

Positive enabling environment

- Guatemalan snow peas are no longer on automatic detention. After technical assistance on pesticide management was provided by the U.S. snow pea producers in Guatemala were able to implement a system that prevents high levels of pesticide residue in snow peas. As of April 20, 2011 Guatemalan snow peas are no longer on the list for automatic detention. This means that Guatemalan snow peas are still subject to FDA inspection but on a random basis but they are no longer held every time for testing.

- Training in diagnostic methodologies helped the Honduran animal health laboratory be able to successfully diagnose Exotic Newcastle disease using Real Time polymerase chain reaction (PCR) and is using that result as a reference for the entire region. This achievement will help Honduras and other countries testing for the disease to move toward equivalence which will allow for increased regional and international trade of poultry.
- As a result of technical assistance in animal disease surveillance and food safety, Guatemala passed a law, consistent with OIE and USDA Animal and Plant Health Inspection Service (APHIS) standards, regulating *Poultry Farms Regionalization and Declarations of Free of Diseases* in July 2010. This law is a step toward equivalence and meeting requirements for future Guatemalan market access within the region and the United States.
- Dominican Republic finalizes writing of new slaughterhouse inspection and operations law. This law was created with technical assistance from U.S. experts. The process of writing the law and getting it through the many reviews with in the Dominican Government took almost 3 years. At this time the law is on the President's desk waiting to be signed into law.
- Over the past 5 years, USDA has performed over 16 regional trainings targeting laboratory practices including diagnostic methodologies and operational efficiencies. As a result, in April 2010, the National Laboratory for Residue (LANAR) in Honduras, the National Laboratory in El Salvador (MATAZANO), and Guatemalan Ministry of Health National Laboratory (LNS) all achieved ISO 17025 certification on salmonella and E.Coli testing procedures, certifying this lab as compatible with international standards.
- Costa Rica has established a "Clean Stock Program" for ornamental flowers that has resulted in about a 20% decrease of detentions since 2007. Trainings to develop this program included in country inspector training and port visits to Miami Port. This activity was carried out in conjunction with APHIS. In addition to lowering detentions, the establishment of this clean stock program has allowed Costa Rica to negotiate a new final rule for the access of ornamental plants larger than 18 inches. The final rule has not yet been approved but it is moving forward and once passed, the economic impact can be over \$10 million a year.
- As part of the equivalence process, the Ministry of Health in Dominican Republic has signed an agreement with the Biotechnology and Industry Innovation Institute (IBBI) laboratory to be the reference lab for all residue testing on meat. This will allow the country to achieve the ISO 17025 certification necessary for a National Residue Program required to meet US standards for exporting beef.
- As a result of a series of training workshops specifically targeting US labeling requirements, labeling detentions from CAFTA-DR have gone down from as 68% in 2005 to under 1% in 2010.

INCREASED PRODUCTIVITY

Many of the results achieved under this agreement cannot only be thought of as steps toward SPS harmonization in the region or as increases in trade. Indeed several accomplishments have either directly or indirectly impacted overall agricultural productivity in the region. These stories are recounted below as means to shine a different perspective on the larger impact.

The same activities aimed at improving agricultural practices so that product quality can meet international standards also enables growers to increase viable yields through greater crop and or pest management. This can be measured through products being tested for fewer microbiological and/or pesticide residues, as demonstrated in the below bullets.

- Over the last four years USDA, with USAID funding, has provided technical assistance on FDA microbiological standards to the Central American Customs Union Committee on Residue Standards for Food; the purpose of the Committee is to harmonize regulations among all of the Central American countries as part of the Central American Free Trade Agreement that has existed since 1963. This assistance has resulted in the Committee adopting standard residue limits of pathogens on food that are in compliance with both FDA as well as with CODEX and passing a harmonized regulation called *the Central America on Microbiological Residue Standards for Food*. The new regulation standardizes maximum residue levels for over 95 percent of microbiological pathogens. USDA and USAID continue to ensure countries and small holders are able to meet such standards through training in good agricultural practices and good manufacturing practices targeting small producers, cooperatives, and processors as well as training national microbiology laboratory staff in pathogen diagnostic methodologies.

- USDA, with USAID funding, has provided assistance specifically targeting the reduction of pesticide residues on snow peas through pesticide management programs in four Guatemalan cooperatives (Cuatro Pinos, Exportadora San Juan, Agroindustria Legumex, and Agro Exportadora Camana). As a result, the cooperatives have been able to prevent contamination and have been removed from FDA's "watch list"; as such, they have successfully exported snow peas to the United States for the last three months without any detentions. Prior to this assistance, pesticide residues were causing detentions of over 100 containers a year – putting over 26,000 farmers at risk of losing market access and corresponding incomes.

- Guatemala has passed a new pesticide registration law. USDA/USAID have been providing an EPA expert to provide guidance to the Ministry of Agriculture, Pesticide Producers Chamber and the Guatemalan Congress regarding a law on the procedures for registering pesticides in Guatemala. On Feb 26, 2010 Guatemala passed law 5-2010 on Pesticide Registration. This law comes very close to meeting international standards, and has many characteristics that are present in the US law, especially the process for registering generics. This will provide added security in Guatemala that prohibited pesticides will no longer be available for purchase in the near future.

- After technical assistance in pesticide registration and maximum residue levels, illegal traces of the insecticide methamidophos were decreased, reducing the amount of containers detained to less than 100 in FY10 from over 1000 in FY08. In addition, Guatemala passed a law banning the use of this toxic substance.

IV. Summary of Gaps Analysis

In March 2009, FAS surveyed the experts they use to build SPS capacity in participating CAFTA-DR countries regarding the status of completion of SPS systems in each country. The areas of interest in the survey were: SPS laboratory capacity (microbiological and pesticide residue); food safety systems (meat, dairy, fresh vegetables, and pesticide residues); animal surveillance systems and plant health systems. In October 2010, this analysis was updated with the results of a similar review, however the new data was informed by a survey of country SPS officials. Five countries (DR, El Salvador, Guatemala, Honduras, and Nicaragua) participated in the review; Costa Rica chose not to participate. The results of the October survey were shared with each country with corresponding recommendations for addressing holes in each system, (these reports – updated to include information from the last 8 months – can be found in Appendix B).

For the purposes of this report we compared what experts told us in 2009 with what countries provided us in 2010. While generally the results from both reviews corresponded well with one another, we believe there are some cases where a country had a more optimistic view of a system,

or aspect of a system, than did our experts, (full survey results from both reviews can be found in Appendix C). Below is a summary of these reviews⁴.

March 2009	Overall effort was approximately 42% complete with a priority area breakout as follows: 37% SPS laboratory capacity completion (into the 50% range after 2010) 43% food safety systems completion (into the 60% range after 2010) 50% animal surveillance systems completion (into the 60% range after 2010) 38% plant health systems completion (into the 50% range after 2010)
October 2010	Overall effort was approximately 62% complete with a priority area breakout as follows: 57% SPS laboratory capacity completion 76% food safety systems completion 56% animal surveillance systems completion 75% plant health systems completion
May 2011	A combined view of the above to sets of data defines the overall effort as approximately 55% complete with a priority area breakout as follows: 47% SPS laboratory capacity completion 60% food safety systems completion 53% animal surveillance systems completion 60% plant health systems completion

We used the results of these surveys to inform and build recommendations contained in the next section. While some of these recommendations are quite specific, there remain several impediments to implementing some of these and realizing greater capacity in the region. These include, but may not be limited to:

- Countries either don't have, or have not prioritized, funding to support systemic issues such as disease eradication or laboratory reforms (fee structuring systems, purchasing of necessary equipment and supplies, implementation of data management systems).
- Government officials are subject to replacement along with changes in political administrations, leaving holes in institutional knowledge.
- Import requirements are complex and are often moving targets.
- The priorities of national administrations within the region are not necessarily in-tune with one another complicating the harmonization of standards process.

V. Conclusions and Recommendations

While much has been achieved through the PAPA, much remains to be done to ensure CAFTA-DR countries are competitive in the global trading arena. USDA estimates that regional capacity building in plant and animal health and food safety systems, including improving diagnostic laboratories, is 55-60% complete.

It is important to note that this capacity building effort cannot reach full completion without the commitment and assistance on behalf of national administrations. To be successful, countries must

⁴ 2009 experts' opinions of Costa Rica systems were used to calculate the regional 2010 estimates of completion. In some cases a country chose not to complete certain sections of the survey; in these cases 2009 experts' opinions were used to calculate the regional 2010 estimates of completion.

take ownership of the effort and commit the necessary resources to ensure recommendations are implemented and other required steps are taken in the process.

In order to overcome constraints and help countries take more ownership over their own competitiveness, a multi-donor approach to SPS in the region is needed. Funding provided directly to government institutions in the region may allow those governments to increase their SPS capacities more rapidly through investments in physical infrastructure and personnel. Once countries begin to realize the benefits of these investments, they will be able commit their own resources to sustain the effort.

There are steps that each country can take toward achieving additional harmonization of SPS systems' quality and governing regulations that are consistent with international standards. These are listed below; specific country recommendations can be found in the individual country reports appended herewith.

Plant Health Systems

Regional plant systems cannot currently support new plant product exports. In order to achieve market access for new plant products, the region's plant health systems must continue to be strengthened. Improvement is required in surveillance, quarantine, disease eradication, pest risk assessments, mitigating measures, and diagnostics. Specifically, each CAFTA-DR participating country must demonstrate to USDA's Animal and Plant Health Inspection Service these abilities in order to gain market access on a product-by-product basis. The best way to do this is by establishing a public-private partnership program that will allow for continued funding and provide adequate resources for quarantine, surveillance, inspection and certification of fresh produce for export. Through the USAID funded USDA capacity building effort, several products have already realized the potential of the CAFTA-DR Agreement. For example, total pepper exports jumped from \$126,000 in 2005 to \$42.2 million in 2010 averaging \$12 million as a result of activities that assisted CAFTA-DR countries to meet APHIS' mitigating measures under the bell peppers final rule.

A USAID funded study on rural development has estimated that one of the best ways to take advantage of the Agreement and decrease poverty is through agricultural diversification toward fresh, high-value produce. Such diversification can be found, for example, with small, rural Guatemalan snow pea producers. Total exports from these producers to the U.S. equal approximately \$20 million a year, representing 196,000 direct and in-direct jobs. U.S. market access for new, high-value products such as snow peas cannot be achieved without first strengthening the region's plant health systems.

Specific actions countries can take to improve plant health systems include:

- Establish strong National Plant Protection Organizations (NPPO) that are sustainable through public-private partnerships, to oversee and certify all fresh produce being exported.
- Establish inspection systems to issue phytosanitary certificates.
- Maintain admissibility for those products currently being exported through good agricultural practices and proper pesticide use.
- Increase risk assessment capabilities by hiring additional staff, providing regular training, and improving pest prevalence mapping.

Animal Health Systems

Regional animal health systems cannot currently support additional animal product exports. In order to achieve market access for new meat and poultry products, the region's animal health system must be strengthened. Improvement is required in surveillance, quarantine, disease eradication and diagnostics. Specifically, each CAFTA-DR participating country must achieve APHIS and OIE certification that they are free of, or demonstrate a regionalization free-zone from, the following diseases: tuberculosis and brucellosis, exotic new castle, avian influenza, infectious laryngotracheitis, and classic swine fever. All these diseases are defined by the OIE under the WTO SPS Agreement as reportable and commerce-limiting. Achieving this status will enable CAFTA-DR countries to reach

equivalence with the United States for fresh and processed beef, pork, and poultry products. The export potential for these products is estimated at more than \$200 million annually. Taking into account the progress achieved over the last five years under the PAPA, the process involved in achieving the above status would likely take at least another two years for poultry and pork and another one year for beef.

Specific actions countries can take to improve their animal health systems include:

- Declare regions free of specific trade constraining diseases through inspections and quarantine.
- Create and fund indemnity programs by species.
- Establish veterinarian accreditation programs.
- Strengthen animal surveillance and quarantine units.
- Increase risk assessment capabilities by hiring additional staff and providing regular training.

Food Safety Systems

Meat Food Safety

In order for countries to achieve US market access for meat and meat products, they must pass an official FSIS audit of the food safety inspection system, which includes a viable animal health system. To date, only three countries have achieved equivalence for red meat, none have achieved equivalence for pork or poultry products. At least an additional 2 years of development are required for all products in all countries to achieve FSIS equivalence. The potential economic impact of achieving equivalence is, as stated above, estimated at more than \$200 million a year. At least an additional 2 years of development are required for poultry products in Honduras and Nicaragua; 2 years for pork from El Salvador and only 1 year for beef from Guatemala and Dominican Republic to achieve FSIS equivalence. The potential economic impact of achieving equivalence is, as stated above, estimated at more than \$200 million a year.

Dairy Food Safety

Currently five countries are able to export dairy products to the U.S., however as a result of poor good manufacturing practices, minimal pasteurization, limited HACCP systems, weak government oversight and limited diagnostic capabilities, many dairy products contain high levels of microbiological residues. Consequently, dairy products have limited access to the US market and some of those that are exported are on FDA automatic detention and are in danger of being delisted. The region now exports about \$13 million a year; if dairy processing is strengthened exports have the potential to double in two years.

Fresh Produce Food Safety

Few fresh produce food safety systems are in place in CAFTA-DR participating countries. Subsequently border detention rates for fresh produce are among the highest in the world; the majority of detained containers are destroyed or fumigated, causing tremendous economic hardship and waste for producers in the region. In addition, a country's products are at risk of being delisted. For example, 14,000 jobs were temporarily lost as a result of Honduran melons being prohibited to the U.S. due to the detection of salmonella.

Container detentions are due to the detection of quarantined pests and microbiological and/or chemical residues; the vast majority of detentions are a result of pesticide residue levels in violation of U.S. Regulations. The lack of a fresh produce food safety system is the result of little government oversight, weak regulatory infrastructure, little to no inspection, lack of training in the proper use pesticides, and limited diagnostic capabilities. To overcome barriers, decrease detentions, prevent delisting, and attain market access for new products, countries must establish a viable fresh produce food safety system.

Specific actions countries can take to improve their food safety systems, include:

- Implement food safety inspection legislation.

- Create an inspection system that meets international regulations for meat and meat products.
- Establish equivalence for beef, swine, and poultry.
- Improve dairy processing by better oversight and enforcement of pasteurization legislation.
- Develop pesticide regulations & tolerances guidelines.
- Establish divisions in respective countries that oversee and monitor pesticide residues on all food products.

SPS Laboratory Capacity

Diagnostic and analytical capabilities are integral to animal health, plant health, and food safety systems. While great strides have been made during the last five years and some laboratories have achieved ISO 17025 certification for some testing procedures, there remains much to do. Regionally laboratories are deficient in quality management systems, laboratory information systems, good laboratory practices, equipment and supplies. Additionally, laboratories are not adequately staffed. Weak laboratory infrastructure prevents animal health, plant health and food safety systems from being viable. Specific actions countries can take to improve laboratory capacity include:

- Increase the diagnostic capabilities of official laboratories.
- Increase lab certification and accreditation.
- Establish payment schedules that permit laboratories to become self-sufficient.
- Create yearly training programs for all technical staff and avoid turnover.
- Establish agreements with private sectors to maintain adequate supplies and reagents in particular for national residue programs.
- Establish well designed Laboratory Information Managements Systems (LIMS).

SPS Ca
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Reviews of Codex MRLs

Costa Rica, Guatemala, Honduras

May 2011

FAS collaborated with the United Nation's Food and Agriculture Organization (FAO) to identify and train experts from the Latin America region on pesticide residue evaluations to establish Codex MRLs. The objective of the training is to increase the number of technical experts who can serve on FAO's technical review committee for establishing MRLs, and therefore increase the number of Codex MRLs established annually. Additionally, a collaborative program between FAS and the Latin American countries will be proposed to generate residue data and establish MRLs for targeted specialty crops. This project was support USDA trade initiatives by establishing international pesticide trade standards for U.S. specialty crops. This program is funded by the Emerging Markets Program of USDA.

HACCP, Anti-Mortem and Post-Mortem Training

El Salvador

May 2011

A retired veterinary inspector from FSIS and an expert in HACCP from the Inter-American Institute for Cooperation on Agriculture (IICA) provided training on HACCP and post-mortem and anti-mortem techniques for government inspectors and meat producers. Participants included government officials and the privates sector. The retired FSIS veterinary inspector also conducted pre-audits of a swine plant that is seeking equivalence with the United States. This training is part of the ongoing USDA-led program to assist the El Salvador in achieving equivalency with the United States for processed meat products. This is a requirement by the USDA/FSIS for countries that wish to export pork and meat products to the United States.

Laboratory Training Animal Health

Honduras

May 2011

An expert was sent to San Pedro Sula, Honduras to provide training on animal health diagnostics. Laboratory technicians from SENASA and the private sector attended. This training is part of a long-term capacity building program aimed to strengthen CAFTA-DR and national laboratories in operational and testing methods to meet U.S. and international standards. Proficiency in disease diagnostics is vital in maintaining a functional animal health system, and ensures the application of internationally recognized analytical methods and tests. This training emphasized diagnosis covering the four main poultry diseases (Avian Influenza, New Castle disease, Infectious Laryngotracheitis, Infectious Bronchitis), Lectures on Biosecurity and Biosafety in the laboratories, samples collection and transport, preparation of reagents for use in the diagnostic testing, and the importance of serology in poultry diagnosis.

Food Safety Directors Meeting

All Central American Countries

April 2011

A 3-day regional meeting was conducted in El Salvador with the participation of Food Safety Directors from all Central America Countries to review the recently passed Central American Microbiological Standards for Food. Participants included Food Directors from both Ministry of Health and Ministry of Agriculture. The purpose of this meeting was to reevaluate some standards that were set by the Ministry of Health that were not consistent with internationally accepted standards. In addition, the Ministries of Agriculture were not included in the creation of this new regulation and this meeting was to provide both working groups the opportunity to work together on the revised legislation. This activity was organized by OIRSA though funds provided by USDA for continued work on harmonizing Central American food safety standards. OIRSA also contribute its own funds to cover venue, translation, transportation and coffee breaks.

Microbiology Laboratory training on E. coli 0:157:H7 and Salmonella

El Salvador, Guatemala, Honduras

March 2011

FAS provided a specialized training to participants from Guatemala, Honduras, and El Salvador to improve the use of testing methodologies for detecting E. coli and salmonella in foods and the implementation of international standards for quality control and assurance. On-site laboratory training was conducted in Honduras. Support for this activity is part of a long-term capacity building program aimed to strengthen the CAFTA-DR national laboratories in operational and testing methods to meet U.S. and international standards. Training was conducted on both USDA and FDA methods to meet both regulatory agencies. Trainers included an expert in FSIS methodologies and two FDA employees.

Beef Pre-Audit and Technical Assistance FSIS Equivalency Questionnaire

Guatemala

March 2011

A retired Food Safety Inspection Service (FSIS) Veterinary Inspector performed pre-audits of 2 Guatemalan beef plants. The inspector provided both the GOG and the private sector with technical assistance on how to get the plants to meet FSIS regulations in order to achieve market access to the U.S. These were follow up visits to prepare them for upcoming official inspections. In addition, technical assistance was also provided to help the GOG fill out the Equivalency Questionnaire required by FSIS to begin the process.

Plant Health Laboratory Diagnostics Training

Guatemala

March 2011

Two technical experts from the University of Florida visited Guatemala to strengthen the laboratory capacity of the National Plant Health Laboratory. The experts provided specific technical information and training on how to use Polymers Chain Reaction (PCR) equipment, which were recently purchased using USDA Food for Progress (FOP) funding for the detection of nematodes, viruses and bacteria. This training was provided to technicians from the government, universities and export association.

Evaluation of National Pesticide Laboratories

Dominican Republic

March 2011

An EPA pesticide expert conducted an exit evaluation of the Dominican Republic's National Pesticide laboratory's current status, evaluate progress made since the inception of the CAFTA-DR project, and identify remaining technical assistance gaps as well as progress achieved after 4 years of technical assistance. This laboratory had recently been given to OIRSA to manage it and many changes had occurred.

Evaluation of National Animal Health Laboratories

El Salvador

February 2011

A technical expert conducted an exit evaluation of El Salvador's National Animal Health laboratory's current status, evaluate progress made since the inception of the CAFTA-DR project, and identify remaining technical assistance gaps as well as progress achieved after 5 years of technical assistance. This evaluation will be incorporated into the closeout reporting for the CAFTA-DR SPS Project.

Progress Review of National Poultry Surveillance System

Honduras

February 2011

As follow up to a review of Honduras' National Poultry Surveillance System, a technical expert visited Honduras to help determine the progress made and identify the remaining requirements for equivalence and international export certification. The Honduran Poultry Industry has provided half a million dollars for a new poultry laboratory, which is also serving as the official reference laboratory for exotic new castle disease (END) in Central America. The ministry has also dedicated staff and resources towards this effort. During this trip the expert found that advances in the surveillance system and the laboratory were achieved. He also prepared a report that establishes a time line of intervention that if met could have the country ready for and official inspection in less than a year.

Technical Assistance on FSIS Standards and Regulations for Meat Equivalence

El Salvador

February 2011

A retired Food Safety Inspection Service (FSIS) Veterinary Inspector to provide further technical assistance to the Government of El Salvador on the writing of slaughterhouse regulations. El Salvador is seeking equivalence with the United States to export meat and meat products (specifically pork). However, their existing regulations do not meet the Food Safety Inspection Service (FSIS) standards. This was the final of three interventions carried out to prepare the legislation and it was completed during this visit.

Meat Plant Audit Techniques, Anti-Mortem and Post-Mortem Training

Honduras

February 2011

A retired veterinary inspector from FSIS and an expert in HACCP from the Inter-American Institute for Cooperation on Agriculture (IICA) and provided training on Meat Plant Audit Techniques, HACCP, post-mortem and anti-mortem techniques for government inspectors and meat producers in San Pedro Sula, Honduras. This activity was to assist in the clarification and understanding how to carry out an official audit of a meat plant to meet FSIS regulations. This activity was carried out to better prepare both the private sector and the official inspectors on what to expect on official FSIS inspections so as to prevent Honduras from losing equivalency again for export of boneless beef to the United States.

Evaluation of National Animal Health Laboratories

Honduras

February 2011

A technical expert conducted an exit evaluation of the Honduran National Animal Health laboratory's current status, evaluate progress made since the inception of the CAFTA-DR project, and identify remaining technical assistance gaps as well as progress achieved after 5 years of technical assistance.

Chilean Technical Assistance

Guatemala

February 2011

Three technical experts from Chile, including a representative from the Ministry of Agriculture, the Chilean Export Industry, and the Agency of International Cooperation, visited Guatemala to monitor, assess and determine the actions required to improve the current system of inspection and certification for Guatemalan fresh produce exports. The Chilean delegation visited commercial farms, packinghouses, exporters, and ports to better understand the existing system and to determine necessary actions, both from the private sector and the government, to meet Guatemala's demand for inspection and certification services. Chile uses a public-private partnership model that could be useful for Guatemala. The activity is the result of a port inspection and quarantine facility study tour to Chile in 2009 that included Guatemalan participants. The goal of this activity is to improve Guatemalan inspection and certification procedures in order to facilitate increased agricultural exports.

Pesticide Management Follow Up

Guatemala

January 2011

To pesticide experts conducted a follow-up activity on pesticide Maximum Residue Levels (MRL's) in Guatemala (the 1st targeted visit was conducted in 2011) in order to address the continuing FDA detentions of Guatemalan produce and the efforts/activities that continue to be implemented to minimize this issue. Another main objective was to discuss plans to implement the expert recommendations for joint activities to be implemented with key Guatemalan stakeholders. Experts met with producer groups and cooperatives such as Cuatro Pinos and presented their recommendations for better handling and management of pesticides with small producers.

Pesticide Laboratory Training

Guatemala

November 2010

USDA performed a pesticide residue laboratory training to strengthen Guatemala's national laboratories in operational and testing methods to meet U.S. and international standards. Strengthening national pesticide laboratories will reduce trade barriers for U.S. exporters by ensuring that internationally compliant methods are applied to U.S. products. The trainers were two experts, one from EPA and one from FDA.

Poultry Pre-Audit***Nicaragua******November 2010***

A retired Food Safety Inspection Service (FSIS) Veterinary Inspector to provide Nicaragua pre-audits of 3 poultry plants. The expert provided both the GON and the private sector with technical assistance on how to get the plants to meet FSIS regulations in order to achieve market access to the U.S. The plants visited were: Tiptop, PIPASA and Pollo Rico. This training is part of the on-going USDA-led program to assist Nicaragua in achieving equivalency with the United States for poultry and processed poultry products. This is a requirement by the USDA/FSIS for countries that wish to export to the United States.

Pesticide Residue Laboratory Training***Dominican Republic******October 2010***

USDA organized a pesticide residue laboratory training for Ministry of Agriculture technicians in Santo Domingo, Dominican Republic. Residue experts from the U.S. Food and Drug Administration (FDA) and the Environmental Protection Agency (EPA) conducted the training on residue analysis and laboratory accreditation. This activity is part of a long-term capacity building program aimed to strengthen the Central American national laboratories in operational and testing methods to meet U.S. and international standards. Proficiency in these laboratories is vital to maintaining a functional food safety system, and ensures the application of internationally recognized analytical methods and tests.

HACCP, Anti-Mortem and Post-Mortem Training***Guatemala******October 2010***

A retired veterinary inspector from FSIS and an expert in HACCP from the Inter-American Institute for Cooperation on Agriculture (IICA) to provide training on HACCP and post-mortem and anti-mortem techniques for government inspectors and meat producers in Guatemala City, Guatemala. Additionally the retired FSIS veterinary inspector also conducted pre-audits of various beef plants that are seeking equivalence. This training is part of the on-going USDA-led program to assist Guatemala in achieving equivalency with the United States for processed meat products. This is a requirement by the USDA/FSIS for countries that wish to export beef and meat products to the United States. A total of 42 persons participated.

Technical Assistance writing of Slaughterhouse Regulations***El Salvador******September 2010***

USDA/FAS provided El Salvador with technical assistance on writing the new slaughterhouse inspections law. This new law is the first step to achieving equivalency with the US, a necessary step for El Salvador to export pork and pork products to the US. The expert providing technical assistance also conducted pre-audits of various swine plants in El Salvador that are seeking equivalency. The purpose of the activity was twofold: to write a new law that will meet FSIS regulations and to evaluate and confirm that suggested changes required in order to meet FSIS standards and regulations have taken place at the plants.

Zebra Chip and Trips Palmi Training***All CAFTA-DR Countries******August 2010***

USDA/FAS sent partners from the Agricultural Research Service (USDA/ARS) and the University of Florida, to provide technical information on preventing Trips Palmi and Zebra Chip Plant Pests in crops to a regional workshop hosted by OIRSA. OIRSA, a regional plant and animal protection organization, sponsored the workshops to increase the strength of pest prevention in the CAFTA/DR region. Program participants, representing all Central American countries including Panama, Dominican Republic and Belize, were funded by OIRSA, while USDA provided expenses for the experts.

Residue Laboratory Training**All CAFTA-DR Countries****August 2010**

USDA/FAS led a pesticide residue laboratory training for Ministry of Agriculture technicians in the Dominican Republic. Residue experts from the FDA and EPA conducted the training on residue analysis and laboratory accreditation. This activity was part of a long-term capacity building program aimed to strengthen the Central American national laboratories in operational and testing methods to meet U.S. and international standards. Proficiency in these laboratories is vital to maintaining a functional food safety system, and ensures the application of internationally-recognized analytical methods and tests.

Good Laboratory Practices for Pesticide Residue Laboratories**All CAFTA-DR Countries****August 2010**

In collaboration with the Office of Enforcement and Compliance Assurance, Environmental Protection Agency (EPA), and Rutgers University's Interregional Research Project Number 4 (IR-4), USDA/FAS trained pesticide technicians in good laboratory practices (GLP) in San Jose, Costa Rica. The training was conducted in cooperation with the University of Costa Rica. Compliance with EPA's GLP standards ensures the quality and integrity of laboratory test data, which is submitted in support of pesticide product registrations. This activity was jointly funded by USAID and USDA EMP funds and included participation from 19 Latin American countries.

Technical Assistance on FSIS Standards and Regulations for Meat Equivalency**Honduras****August 2010**

USDA/FAS conducted pre-audits of two meat plants and labs in Honduras seeking re-certification with the U.S. Food Safety Inspection Service (FSIS). A retired FSIS veterinary inspector examined meat processing facilities, laboratories and met with government food regulatory officials to review Honduras' food safety inspection system. This activity allowed Honduras to re-establish its Equivalence with the United States. It is now eligible to export meat and meat products to the United States with an estimated economic impact of approximately \$10 million a year according to the GOH and the two plants.

Pesticide Trade Standard Compliance in Export Crops**Dominican Republic****July 2010**

FAS and EPA pesticide regulatory experts conducted field visits in the Dominican Republic in order to reduce the incidence of illegal pesticide residues in food exports to the United States. These visits included meetings with the offices of USDA, USAID, USAID/RED (Rural Economic Diversification Project), the Dominican Republic's Ministry of Agriculture (Pesticide Registration Unit), AFIPA and ANIMPA (pesticide industry trade associations), a group of oriental vegetable farmers in La Vega ("Cluster Hortofruticicola de La Vega, Inc."), a vegetable export/packing house in La Vega ("Exportadora Campo Verde"), a small retail pesticide store in La Vega, a group of greenhouse pepper growers/exporters in Jarabacoa ("Cluster de Invernaderos de Jarabacoa"), a group of farmers in Constanza that principally produce for the domestic/local market ("Cluster Horticola de Constanza"), and a local/supermarket potato packing plant in Constanza. Compliance with international pesticide residue standards will reduce detentions of Dominican exports, improve product quality, and promote farm productivity, thereby increasing the quantity and quality of food available to meet local and international market needs.

Residue Laboratory Training**El Salvador****July 2010**

USDA/FAS led a pesticide residue laboratory training for Ministry of Agriculture technicians in San Salvador, El Salvador. Residue experts from the U.S. Food and Drug Administration (FDA), and the Environmental Protection Agency (EPA) conducted the training on residue analysis and laboratory accreditation. This activity is part of a long-term capacity building program aimed to strengthen the Central American national laboratories in operational and testing methods to meet U.S. and international standards. Proficiency in these laboratories is vital to maintaining a functional food safety system, and ensures the application of internationally-recognized analytical methods and tests.

Poultry Health Surveillance System Review

Nicaragua

July 2010

USDA/FAS supported a technical veterinary expert to conduct a review of Nicaragua's poultry surveillance system and to provide assistance to the Nicaraguan Ministry of Agriculture and Forestry (MAGFOR), poultry industry leaders and top producers. The expert evaluated the current status of the poultry surveillance system, identified needs, gave targeted training, and provided recommendations for improvements for future equivalence and certification conducted by international entities. The program furthers the Sanitary and Phytosanitary (SPS) capacity building objectives of the Dominican Republic-Central American Free Trade Agreement (CAFTA-DR) and is funded through a participating agency agreement with the U.S. Agency for International Development (USAID) and USDA.

Residue Laboratory Training

Guatemala

June 2010

USDA/FAS led a pesticide residue laboratory training for Ministry of Agriculture technicians. Residue experts from the U.S. Food and Drug Administration (FDA) and Environmental Protection Agency (EPA) conducted the training on residue analysis and laboratory accreditation. This activity is part of a long-term capacity building program aimed to strengthen the Central American national laboratories in operational and testing methods to meet U.S. and international standards. Proficiency in these laboratories is vital to maintaining a functional food safety system and ensures the application of internationally-recognized analytical methods and tests.

Residue Laboratory Training

Honduras

June 2010

FAS led a pesticide residue laboratory technical assistance for LANAR technicians in Tegucigalpa, Honduras. Residue experts from the U.S. Food and Drug Administration (FDA), the Environmental Protection Agency (EPA) conducted the training on residue analysis and laboratory accreditation. It was also the first training provided to Honduras since the political situation prevented any activities from being carried out. This activity is part of a long-term capacity building program aimed to strengthen the Central American national laboratories in operational and testing methods to meet U.S. and international standards. Proficiency in these laboratories is vital to maintaining a functional food safety system, and ensures the application of internationally-recognized analytical methods and tests.

Microbiology Laboratory Training on E coli 0157

Dominican Republic

May 2010

In collaboration with the FDA and Texas A & M University, FAS provided training in micro-biology laboratory detection techniques to officials in the Dominican Republic including technical training on laboratory methods for detecting E-coli and Salmonella bacteria in meats and fresh produce. The trainings were conducted by laboratory experts from FDA and the National Autonomous University of Hidalgo Mexico. Laboratory specialists from the Institute for Innovation in Biotechnology and Industry participated. This training is a, FSIS prerequisite for any country seeking to export meat and meat products to the United States as part of Equivalence.

HACCP, Anti-Mortem and Post-Mortem Training

Dominican Republic

May 2010

A retired veterinary inspector from FSIS and an expert in HACCP from the Inter-American Institute for Cooperation on Agriculture (IICA) provided training on HACCP and post-mortem and anti-mortem techniques for government inspectors and meat producers. The retired FSIS veterinary inspector also conducted pre-audits of various beef plants that are seeking equivalence with the United States. This training is part of the ongoing USDA-led program to assist the Dominican Republic in achieving equivalency with the United States for processed meat products. This is a requirement by the USDA/FSIS for countries that wish to export beef and meat products to the United States.

Pesticide Management Program Technical Assistance***Guatemala******May 2010***

As a follow up from the March 2010 trip, a retired EPA expert provided technical assistance to cooperatives and producer groups on how to set up a proper pesticide management system to prevent contamination of fresh produce. The expert worked closely with four producer groups, comprised of small producers totaling over 36,000 families. The purpose of this technical assistance was to create a pesticide management program that can prevent the contamination of fresh vegetables, and create a traceability program that can be used to identify producers that do not comply. The expert helped the producer groups create a sampling method that can improve the detection of residue in-country prior to shipment to comply with EPA and Food and Drug Administration (FDA) regulations. These visits included a vegetable export cooperative, a private vegetable export company, a variety of farmers and farming operations associated with these two exporting organizations, the Guatemalan National Health Laboratory, a trade association of pesticide manufacturers (Agrequima, affiliated with the international "Crop Life" network), the pesticide registration arm of Guatemala's Department of Agriculture (MAGA), several blackberry export companies, representatives from the Snow Pea Commission, representatives of PIPPA (a MAGA-accredited program that offers inspections and pre-certification for SPS requirements) and representatives of AGEXPORT (the Guatemalan Exporters Association).

Review of Classic Swine Fever Program***El Salvador******April 2010***

USDA/FAS sent a technical expert to complete a review of El Salvador's classical swine fever (CSF) surveillance program. The expert assessed the CSF status and provided targeted training, assistance and recommendations for system improvements. This is a follow up event from the audit carried out in FY2008. The goal of this activity was to assist Salvadoran officials prepare for an official APHIS audit to declare the country free of Classic Swine Fever so El Salvador can export pork products to the United States.

Veterinarian Accreditation Training***Nicaragua******April 2010***

USDA/FAS provided a technical veterinary expert to conduct a veterinary accreditation training course and provide assistance to the Nicaraguan Ministry of Agriculture and Forestry (MAGFOR) on reviewing their current programs and plans. This training improved the national veterinary service by standardizing the protocols for certification in veterinary medicine and animal disease control. The training was conducted at the University of Leon in cooperation with the Honduran Veterinarian Association and OIRSA. Participants included MAGFOR officials, OIRSA officials, Private Veterinarians and students.

Pesticide Management Program Technical Assistance***Guatemala******March 2010***

A retired EPA expert provided technical assistance to cooperatives on setting up a proper pesticide management system to prevent contamination in fresh produce. The expert worked closely with Cooperative Cuatro Pinos and Agroexportadora San Juan. Both of these organizations are comprised of small producers totaling over 26,000 families. The purpose of this technical assistance was to create a pesticide management program that can prevent the contamination of fresh vegetables, as well as create a traceability program that can be used to identify those producers that do not comply. The expert also helped these cooperatives create a sampling method to improve the detection of residue in-country prior to shipment and comply with EPA and FDA regulations.

Residue Laboratory Technical Assistance***Nicaragua******March 2010***

USDA led a pesticide residue laboratory technical assistance for Ministry of Agriculture technicians in Managua, Nicaragua. Residue experts from the U.S. Food and Drug Administration (FDA) and the Environmental Protection Agency (EPA) conducted the training on residue analysis and laboratory accreditation. This activity is part of a long-term capacity building program aimed to strengthen the Central American national laboratories in operational and testing methods to meet U.S. and international standards. Proficiency in these laboratories is vital to maintaining a functional food safety system, and ensures the application of internationally-recognized analytical methods and tests.

Residue Laboratory Technical Assistance**Guatemala****March 2010**

USDA led a pesticide residue laboratory training for Ministry of Health technicians in Guatemala City, Guatemala. Residue experts from FDA and EPA conducted the training on residue analysis and laboratory accreditation. This activity is part of a long-term capacity building program aimed to strengthen the Central American national laboratories in operational and testing methods to meet U.S. and international standards. Proficiency in these laboratories is vital to maintaining a functional food safety system, and ensures the application of internationally-recognized analytical methods and tests. In addition, an EPA expert provided technical assistance on the design of expansion blue prints for the pesticide laboratory.

Plant Health Laboratory Training**Dominican Republic****February 2010**

USDA provided an expanded plant health diagnostic training in the Dominican Republic. A University of Florida, Plant Pathology Department specialist conducted lectures and facilitated hands-on laboratory detection methodology to laboratory personnel for various priority plant pests and diseases of export importance. This hands-on course included diagnostic methods for bacteria, viruses and nematodes. In order to expand networking opportunities within the region, the regional coordinator of the Integrated Pest Management Collaborative Research Support Program (IPM CRSP) from Guatemala conducted the nematode portion of this training. The long-term goal is to expand agricultural trade by strengthening CAFTA-DR national laboratories in operational and testing methods to meet U.S. and international standards.

Animal Health System Pre-Audit**Dominican Republic****February 2010**

USDA provided guidance to the Dominican Republic on animal health system development. The animal health systems expert reviewed previous efforts to upgrade the country's animal health surveillance and quarantine system and met with officials in the Ministry of Agriculture's Veterinary Service branch to discuss actions needed to achieve equivalence with the United States. The ultimate objective of equivalence is to be able to export Dominican meat and poultry.

Dairy Training**Guatemala****Jan/Feb 2010**

FDA and USDA experts traveled to Guatemala to follow up with six major dairy plants on the implementation of recommended HACCP procedures and to work on the next steps in achieving international dairy sanitation standards required for exports. The objective of this effort was to increase the level of two-way trade in dairy products between the United States and Guatemala.

Residue Laboratory Evaluation**Costa Rica****December 2009**

U.S. Department of Agriculture's (USDA) Foreign Agriculture Service (FAS) led an evaluation of the Pesticide Residue Laboratory, Ministry of Agriculture (SEA) Laboratories in Costa Rica. Residue experts from Food and Drug Administration (FDA) and Environmental Protection Agency (EPA) participated in the evaluation. This activity is part of a long-term capacity building program aimed to strengthen the Central American Free Trade Agreement-Dominican Republic (CAFTA-DR) national laboratories in operational and testing methods to meet U.S. and international standards. Proficiency in these laboratories is vital to maintaining a functional food safety system, and ensures the application of internationally-recognized analytical methods and tests.

Pesticide Registration Workshop***Costa Rica******December 2009***

U.S. Department of Agriculture's (USDA) Foreign Agriculture Service (FAS) led a Pesticide Registration Workshop, Ministry of Agriculture (SEA) Laboratories in Costa Rica. Residue experts from Food and Drug Administration (FDA) and Environmental Protection Agency (EPA) participated in the workshop. The purpose of this workshop was to provide technical assistance to government officials that are responsible for the registration, control and use of pesticides and provide them with standards and methods used by US agencies to carry out their work. In addition, the experts provided technical opinions on the regulations being presented by Costa Rica as part of the harmonization efforts of Central America.

Good Agricultural Practices workshop***El Salvador******December 2009***

USDA/FAS, in conjunction with the University of Maryland's Joint Institute for Food Safety and Applied Nutrition (JIFSAN) and FDA, conducted a "Good Agricultural Practices" (GAPs) workshop in El Salvador. This training was designed to train Salvadoran extension officials and influential members of local producer organizations in a broad range of good practices both on the farm, and in processing. The workshop provided Salvadoran producers with the knowledge necessary to produce safe products for export, thus protecting the U.S. consumer, and facilitating trade.

Dairy Training for Processing Industry***Nicaragua******December 2009***

USDA/FAS sponsored training on FDA food safety requirements for dairy processing in Managua, Nicaragua. These courses provided Nicaragua with information on FDA requirements for Good Manufacturing Processes (GMPs), Hazard Analysis and Critical Control Points (HACCP), and Pasteurization in advance of the FDA inspections of Nicaraguan facilities. The training built industry capacity to implement improvements to the food safety management systems and of inspection officials to provide adequate oversight and verification of those systems.

Pre-Audit of Beef Plants & Technical Assistance on FSIS Standards & Regulations for Meat Equivalence***Dominican Republic******November 2009***

USDA/FAS conducted pre-audits of various meat plants in the Dominican Republic that are seeking equivalence. The activity evaluated plants, confirmed that suggested changes and updates had taken place, and confirmed that the standards and regulations set forth by FSIS were met. In addition to the pre-audits, the expert provided technical assistance with writing new meat inspection regulations. With this final review of the regulations, the Dominican Republic has completed this process. The regulations are expected to become law in early 2010 and will allow the Dominican Republic to move forward in the equivalence process.

OIE Regulations on Regionalization and APHIS Veterinarian Accreditation System***Guatemala******November 2009***

USDA provided technical assistance to the Government of Guatemala on how to implement World Organization of Animal Health (OIE) regulations on the regionalization of exotic diseases. The expert also trained government veterinarians on the official accreditation system that APHIS employs in the United States as part of an integral Animal Health System. In addition, the expert conducted an audit of the country's Bovine Tuberculosis and Brucellosis quarantine and surveillance system and provided recommendations to the Director of Animal Health on how to improve the system.

Technical Assistance on Writing the Slaughterhouse Regulations and Filling out the Equivalence forms for Food Safety Inspection Service

Guatemala

November 2009

A USDA Food Safety Inspection Service (FSIS) expert provided technical assistance to the Government of Guatemala on writing the slaughterhouse regulations in order to meet FSIS regulations for exporting meat and meat products under equivalence. In addition, the expert worked with GoG to help them fill out the FSIS packet to officially request Equivalence with the United States. This is the first official step to initiate the process to export meat and meat products to the United States. In addition to finishing the review of the regulations, pre-audits were also carried out on two slaughterhouses and a processing plant.

Pesticide Regulatory Guidance

Dominican Republic

November 2009

USDA/FAS, in collaboration with the EPA, provided guidance to pesticide regulatory officials, the pesticide industry, and agricultural exporters about U.S. and international pesticide residue policies. The focus of the discussions was on U.S. import requirements, U.S. monitoring and enforcement practices, and international harmonization efforts. The Dominican Republic has had a significant problem with detentions due to high levels of pesticide residue on fresh produce. Prior to 2008, they averaged over 4000 containers detained per year. In 2008 the number dropped considerably to less than 500 containers, but is still considered too high. This training aims to lower the amount being detained and help new exporters avoid detention. This seminar was organized in conjunction with the USAID/RED project in the Dominican Republic to create sustainability and was used as a train-the-trainer program for three RED members that will carry this knowledge to the small farmers that they are working with.

Guidance on Pesticide Registrations All CAFTA-DR Countries

All CAFTA-DR Countries

October 2009

USDA/FAS collaborated with the United Nations Food and Agriculture Organization (FAO) on harmonization pesticide registration procedures for Central American countries in Panama City, Panama. Workshop topics included current regional harmonization efforts: identifying specific obstacles Central American countries face regarding harmonization, review of current registration legislation in each country, and guidance to harmonize legislation across the region. This will benefit two-way trade of agricultural products by establishing common pesticide standards within Central America, reducing the likelihood that exports violate pesticide residue standard of individual countries.

Trans-boundary Animal Diseases

Costa Rica, Dominican Republic, El Salvador, Guatemala, Nicaragua

September 2009

Officials attended the Spanish speaking International Trans boundary Animal Disease Course (ICTAD) at the Foreign Animal Disease Diagnostic Laboratory on Plum Island, New York. The participation of key government regulatory and veterinary officials in the workshop increased the capacity of emerging markets in Latin American countries to identify and diagnose diseases in poultry and livestock. The ability to diagnose diseases reportable to the OIE and other standard setting bodies will greatly increase compliance with and adoption of the US model as these countries develop their animal health surveillance systems, therefore increasing market access and exports to Latin America.

Pesticides Residues Training

Guatemala

September 2009

Laboratory training was provided to Ministries of Health and Agriculture technicians from the national residue laboratory. They received guidance to improve testing methodologies for detecting pesticide residues in foods. USDA and the FDA also conducted a mock-audit of the laboratory in preparation of international accreditation of the laboratory. The objective of this training was to implement international standards for quality control and assurance, supporting a functional food safety system and gaining confidence in Central American laboratories for sample testing of U.S agricultural imports. This training is part of a long-term capacity building program aimed at strengthening national laboratories in the CAFTA-DR region.

Chile Pre-clearance Study Tour**All CAFTA-DR Countries****August 2009**

USDA/FAS organized a study tour of Chile's Plant Health System. Participants included Ministry of Agricultural Officials from all CAFTA-DR countries, with exception of Honduras, and key private sector individuals. The purpose of this trip was to view a successful model for plant products export to the U.S. and to allow Chilean exporters to showcase their system and share their experiences with their CAFTA-DR neighbors. This unique third country training allows CAFTA-DR participants to gain a better understanding of how plant health surveillance, inspection, quarantine and certification is conducted, the roles of each party in that process and the infrastructure required to sustain the effort. The tour included a full review of national procedures and USDA requirements at various quarantine, inspection and processing facilities in Chile. The training was coordinated by USDA/FAS and USDA/APHIS, as well as FAS/Santiago, APHIS/Santiago and SAG (Ministry of Agriculture in Chile).

Maximum Residue Level's (MRL) Specialty Crop Seminar on Pesticides**All CAFTA-DR Countries****August 2009**

USDA, in coordination with the Food and Agriculture Office of the United Nations, held a regional workshop in San Jose, Costa Rica to address the harmonization of pesticide maximum residue levels (MRLs). Workshop topics included international harmonization efforts, identifying specific obstacles Central American countries face regarding MRLs, discussing how to better coordinate various efforts, and providing recommendation on how countries can better engage and benefit from Codex and other international systems.

Review of Classical Swine Fever Program**Dominican Republic****August 2009**

USDA provided a Classic Swine Fever (CSF) workshop in Dominican Republic. The purpose of this course was to train regulatory officials on surveillance measures and diagnostics of classical swine fever. This workshop was a planned follow up exercise of the larger regional "Train the Trainer" workshop held in May 2009 in Guatemala; the regional training served as the development point of individual country training programs in Central America on CSF. The training was provided by Ministry of Agriculture officials from Dominican that attended the May course and OIRSA officials involved in the eradication effort of CSF. The collaborating effort with OIRSA is to create local experts in these areas and increase the sustainability of the program. In addition, producer groups working under the USAID RED program attended the activity.

Pesticides Residues Training**All CAFTA-DR Countries****July 2009**

The EPA Office of Enforcement and Compliance Assurance trained CAFTA-DR officials in Costa Rica on good laboratory practices (GLP). Compliance with EPA's GLP standards ensures the quality and integrity of laboratory test data, which is submitted in support of pesticide product registrations. The training was conducted at the pesticide analytical laboratory of the University of Costa Rica, which is currently the only pesticide laboratory in the CAFTA-DR region accredited internationally under International Organization for Standardization (ISO), regulation 17025. FAS support for this activity is part of a long-term capacity building program aimed to strengthen CAFTA-DR national laboratories in operational and testing methods to meet U.S. and international standards.

FDA Labeling Training**Costa Rica****July 2009**

USDA, in collaboration with U.S. Food and Drug Administration (FDA), provided training in general food labeling requirements, as well as detailed information required for specific commodities including meat, poultry, processed products and cases of fresh produce. Participants were from the private sector currently exporting or trying to export to the United States as well as technical staff from the export association (CADEXCO) managing the International Development Bank (IDB) AgroCAFTA project. USDA provided the expert; all other costs were covered by CADEXCO under the AgroCAFTA program.

Good Agricultural Practices Training

Guatemala

July 2009

USDA and the FDA trained roughly 80 fruit and vegetable producers and processors from the private and public sectors on Good Agricultural Practices. Guatemalan food safety officials requested assistance to address recent pathogen problems associated with exports. In response to the request, USDA worked with the Joint Institute for Food Safety and Applied Nutrition (JIFSAN), an FDA partnership with the University of Maryland to provide hands-on training workshop in GAPs. The training provided Guatemala with an adaptable framework of pest practices currently available to reduce microbial food safety risks.

Technical Assistance on Writing the Slaughterhouse Regulations and Filling out the Equivalence forms for FSIS

Guatemala

July 2009

A USDA/FSIS expert provided technical assistance to the Government of Guatemala on writing the slaughterhouse regulations in order to meet USDA's FSIS regulations for exporting meat and meat products under Equivalence. In addition, the expert worked with GOG to help them fill out the FSIS packet to officially request Equivalence with the United States.

Quality Control in Food Microbiology Laboratory

Nicaragua

July 2009

USDA, in cooperation with Texas A&M University and Mexico's Universidad Autonoma de Hidalgo, conducted a workshop for laboratory technicians in the national laboratories of Nicaragua. The training focused on quality control in food microbiology analysis, and is part of a larger series of trainings designed to increase the capacity of the national laboratories in Central America and the Dominican Republic to test for food, plant, and animal-borne pathogens using internationally recognized scientific standards. This will decrease the amount of arbitrary detentions experienced by U.S. exporters to the region and better protect the American consumer.

Low Acid Canned Foods Regional Training

Guatemala, El Salvador, Honduras, Nicaragua

June 2009

FAS sponsored a regional training on LAFC by teaching the Better Process Control School (BPCS) course in San Salvador, El Salvador. Private sector participants from Guatemala, El Salvador, Nicaragua and Honduras were also present. Currently, the Food and Drug Administration (FDA) regulations require all exporters of canned foods to have one supervisor on the premises whenever the processing plant is operating. This operating supervisor must have successfully completed a school approved by the FDA. The most common method of compliance is to hold the official BPCS certification course. This training built capacity of the industry to implement improvements to the food safety management systems and of inspection officials to provide adequate oversight.

FDA Food Labeling Regulations Requirements

Dominican Republic

May 2009

FAS, in collaboration with FDA, provided training on food labeling regulations. The course focused on the U.S. Food and Drug Administration's (FDA) general labeling requirements, and detailed information required for specific commodities including meat, poultry, processed products and cases of fresh produce. Participants included current and aspiring exporters of these products and local government representatives. A total of 88 participants attended the three-day course. The first two days focused on regulations while the third day provided hands-on training as participants brought in actual labels to examine and discussed various issues.

Review of Classical Swine Fever Program

Guatemala

May 2009

USDA completed a review of Guatemala's classical swine fever (CSF) surveillance program. USDA assessed the disease status and provided targeted recommendations for system improvements. This was a follow up of previously provided trainings. In March 2008 regulatory officials received training on CSF surveillance measures and diagnostics through a regional train-the-trainer workshop. Afterward, training was provided in-country for other government officials and the private sector. The assessment evaluated Guatemala's preparedness for international equivalence and certification and provided recommendations for passing an APHIS audit. In addition to the audit, the expert also carried out training on Veterinarian Accreditation Program that included participation from government officials, private veterinarians, OIRSA and university professors.

Technical Assistance on Writing the Slaughterhouse Regulations and Filling out the Equivalence forms for FSIS

Guatemala

May 2009

As follow-up to the January 2009 activity, USDA provided technical assistance to the Government of Guatemala on writing the slaughterhouse regulations in order to meet USDA's FSIS regulations for exporting meat and meat products under Equivalence. The expert also worked with GoG to help them fill out the FSIS packet to officially request Equivalence with the United States.

Poultry Disease Pre-Audit Follow up

Honduras

May 2009

USDA sent a technical expert to Honduras to continue to provide guidance on the Honduran poultry surveillance system and assist Honduran preparations for an official APHIS audit. The audit includes the use of quality-controlled, standard laboratory practices, while strengthening overall poultry health surveillance efforts. This visit is a follow-up of prior visits to see the progress and to help Ministry of Agriculture develop a plan to overcome the deficiencies. This plan was prepared with collaboration by the government and private sectors with the help of the technical expert, and will cost an estimated \$1.5 million. It demonstrated how such an investment could help the country reach export status with the U.S. and create about 13,000 new jobs. To generate support and funding, this proposal was later presented to the President of Honduras by the Ministry of Agriculture and the U.S. Embassy.

Laboratory Animal Disease Training in Poultry Diseases

Honduras

May 2009

USDA sent a team of animal health laboratory experts to provide specific training on poultry disease on the following topics: bio-security; vaccination; pathogens and serology testing; and disease diagnosis. Honduras is in the final phase of the equivalence process with the U.S. on poultry and its ability to properly diagnose these diseases is part of the Animal Health audit that is carried out by APHIS to declare the country free of diseases. This training was to provide Honduras the necessary knowledge on approved procedures to pass the audit.

Microbiological Laboratory Diagnostic Methods Training

All CAFTA-DR Countries

April 2009

USDA, in cooperation with Texas A & M University conducted a regional workshop on proper laboratory techniques for testing microbiological samples for salmonella. The training focused specifically on testing for salmonella in poultry products, vegetables and dairy products. Participation included laboratory personnel from the national laboratories of Guatemala, Costa Rica, El Salvador, Honduras, Nicaragua, and the Dominican Republic. The training provided attendees with the technical knowledge necessary to test for food borne microbiological hazards, thus providing for safer food, and facilitating trade between the Central American nations and the United States. The techniques taught include both FSIS and FDA approved methods.

**Good Agricultural Practices Training
Dominican Republic**

April 2009

USDA trained roughly 80 fruit and vegetable producers and processors from the private and public sectors on good agricultural practices (GAPs). Dominican food safety officials requested assistance to address recent pathogen problems associated with exports. In response to the request, USDA worked with the Joint Institute for Food Safety and Applied Nutrition (JIFSAN), a Food and Drug Administration (FDA) partnership with the University of Maryland, to provide a hands-on training workshop in GAPs. The training provided the Dominican Republic with an adaptable framework of pest practices currently available to reduce microbial food safety risks.

**Pest Diagnostic Training
All CAFTA-DR Countries**

March 2009

A regional plant pest diagnostic training for laboratory personnel from all the CAFTA-DR countries plant health laboratories took place in Guatemala. The training included lectures on various fungi and viruses of export importance, hands-on laboratory detection methodology and finalizing of standard operating procedures. While the primary focus of the training was on Nematodes (a plant pest) other relevant priority plant pests and diseases were also addressed. The long-term goal of this activity is to expand agricultural trade by strengthening CAFTA-DR national laboratories in accurate operational and testing methods to meet U.S. and international standards.

**Bovine Laboratory Training in El Salvador
All CAFTA-DR Countries**

March 2009

USDA sent a team of animal health laboratory experts to El Salvador who conducted a regional animal health laboratory training in El Salvador. This training addressed bovine serology and PCR testing on bovine diseases Brucella, Anaplasmosis Bovine Leucosis and Bluetongue. The training included participation of all CAFTA-DR countries except for Nicaragua, who could not participate. This is part of the ongoing process to improve the Animal Health Laboratories of the CAFTA-DR countries to meet international standards and achieve certification.

**Pre-Audit Activity
Honduras**

March 2009

From March 23-26, the USDA conducted a pre-audit of a poultry plant in Honduras (CADECA) that is seeking equivalence with the U.S. The direct focus of this activity was to prepare them for the final official audit scheduled by FSIS at the end of April 2009. This is the last of many technical assistance visits that have been made to this plant since 2005 in preparation of Honduras achieving "Equivalence" for poultry with the U.S. and thus having market access to export fresh and processed poultry meat and products to the U.S. If the plant passes the official inspection by FSIS in late April, the U.S. will start the "Final Rule" process in which a regulation is written in the Federal Code of Regulations that would allow Honduras market access. This process takes at least one year. Honduras would also have to be certified by APHIS to be free of Exotic Newcastle Disease prior to exporting their first container.

**USAID Sponsored CAFTA-DR Fair
Nicaragua**

March 2009

USAID's Nicaragua Mission co-sponsored a CAFTA-DR Fair with the Inter-American Development Bank's (IDB) AgroCAFTA project. The purpose of the fair was to outline the advances that have taken place under the trade agreement. The fair included stands and professional seminars on a wide area of topics. The Regional Coordinator of the Participating Agency Program Agreement (PAPA) between USAID and USDA attended the fair to pass out brochures detailing some of the successes the region has experienced due to the Agreement and to answer questions regarding US regulations and market access issues. A presentation was also given in conjunction with OIRSA on procedures to export food and agricultural products to the United States. In addition, an APHIS expert gave a presentation on exporting fresh produce to the United States.

Central America Laboratory Training on Pesticide Residues

Costa Rica, Dominican Republic, El Salvador, Guatemala and Honduras February 2009

USDA conducted a workshop in San Jose, Costa Rica for national laboratories' technicians. The purpose was to improve the use of testing methodologies for detecting pesticide residues in foods. The objective of this training is to implement international standards for quality control and assurance, thereby supporting a functional food safety system.

El Salvador Review of Classical Swine Fever Program

El Salvador

February 2009

USDA/FAS completed a review of El Salvador's classical swine fever (CSF) surveillance program. USDA assessed the disease status and provided targeted recommendations for system improvements. This is follow-up on previously provided trainings. In March 2008 regulatory officials in El Salvador received training on CSF surveillance measures and diagnostics through a regional train-the-trainer workshop. Afterward, training was provided in-country for other government officials and the private sector. The goal of this assessment was to evaluate El Salvador's preparedness for international equivalence and certification and pass an APHIS audit. The reviewer was an ex-APHIS employee that carried similar work during the NAFTA implementation process with Mexico. In addition to the audit, the expert also carried out training on Veterinarian Accreditation Program that included participation from Government Officials, Private Veterinarians, OIRSA and University Professors. Below is the information on the participants for the accreditation training.

Pork Plants Pre-Audit

El Salvador

February 2009

USDA/FAS conducted a pre-audit at pork plants in El Salvador which is seeking equivalence. The direct focus of this activity was to evaluate the plants and suggest changes and updates needed to meet FSIS regulations. In addition, the expert spent three days working with the Ministry of Agriculture reviewing their slaughterhouse inspection regulations as well as helping them fill out the FSIS questionnaire for Equivalence request. A retired FSIS veterinary expert carried out the inspections in one meat plant and 2 slaughterhouses.

Pesticide Registration Training

Honduras

February 2009

USDA/FAS sent an EPA expert to Honduras to help pesticide regulators in the process for registering new pesticides. The EPA official met with the Ministry officials working on the creation of these regulations, as well as with private sector representatives to discuss EPA's procedures. This technical assistance will help Honduras create internationally accepted regulations on pesticide registration procedures and maximum residue level standards.

Dairy Training and Technical Assistance

El Salvador

January 2009

USDA/FAS sent experts to El Salvador to follow up with dairy plants on implementation of recommended HACCP procedures, Pasteurization, Good Manufacturing Practices and the use of proper equipment. This was done to achieve international dairy sanitation standards required for exports and meet FDA regulations. The objective of this effort is to increase the level of two-way trade in dairy products. A total of 6 dairy plants were visited and provided with technical assistance.

Technical Assistance on Writing the Slaughterhouse Regulations and Filling out the Equivalence forms for FSIS

Guatemala

January 2009

An FSIS expert provided technical assistance to the Government of Guatemala on writing the slaughterhouse regulations in order to meet USDA's FSIS regulations for exporting meat and meat products under Equivalence. In addition, the expert worked with GOG to help them fill out the FSIS packet to officially request Equivalence with the United States.

OIE Regulations on Regionalization and APHIS Veterinarian Accreditation System

Guatemala

January 2009

An APHIS expert provided technical assistance to the Government of Guatemala on how to implement the OIE regulations on the regionalization of exotic diseases. In addition, the expert also trained government veterinarians on the official accreditation system that APHIS employs in the United States as part of an integral Animal Health System. Participation included government officials and private sector representatives. The activity was funded by USDA's Emerging Markets Program.

Pesticide Registration Technical Assistance

Nicaragua

January 2009

An EPA expert provided guidance to Nicaraguan pesticide regulators on the process for registering new pesticides. The purpose of this technical assistance was to help Nicaragua prepare for the Customs Union scheduled for March 2009 in Managua. Nicaragua has worked on creating internationally accepted regulations on pesticide registration procedures and maximum residue levels standards and wanted to ensure they would be harmonized with the standards other Central American countries would present at the meeting. The EPA official met with the Ministry officials that are working on the creation of these regulations as well as those that are participating in the technical committee of the customs union.

Dairy Training and Technical Assistance

Nicaragua

January 2009

From January 14- 21, the USDA/FAS sent experts to Nicaragua to follow up with dairy plants on their implementation of recommended HACCP procedures, pasteurization, good manufacturing practices and the use of proper equipment. This was done to achieve international dairy sanitation standards required for exports and to help plants meet FDA regulations. The objective of this effort is to increase the level of two-way trade in dairy products. A total of 7 dairy plants were visited and provided with technical assistance.

Food Safety Inspection Service-mandated E.Coli testing methods

Nicaragua

January 2009

USDA sent a microbiologist to Nicaragua to train diagnostic laboratories staff on the new Food Safety Inspection Service (FSIS)-mandated E.Coli testing procedures. Specifically, the training demonstrated proper equipment, procedures, and requirements for the new method to test for E.Coli in meat. Implementation of the new FSIS testing procedures is required in order to maintain equivalency status for trade in meat products with the United States. Without this training the country was at risk of losing meat exports to the U.S. valuing over \$100 million annually.

Training on new Food Safety Inspection Service-mandated E.Coli testing methods

Costa Rica

December 2008

USDA provided training to the Costa Rica diagnostic laboratory on new Food Safety Inspection Service (FSIS)-mandated E.Coli testing procedures. Dr. Javier Castro, a microbiologist from Texas A&M University, conducted the training, which included proper equipment, procedures, and requirements for a new method to test for E.Coli in meat. Implementation of the new FSIS testing procedures is required in order to maintain equivalency status for trade in meat products with the United States. The method also included that a sample strain was needed as part of the method and Dr. Castro was able to verify with a specific kit that said strain was correct.

Tariff Rate Quota Administration

Dominican Republic

December 2008

USDA/FAS provided TRQ administration training via Teleconference to 18 government representatives of the DR to help them implement DR-CAFTA quotas. This activity was funded by USDA.

Training on new Food Safety Inspection Service-mandated E.Coli testing methods

Honduras

December 2008

USDA provided training to Honduras diagnostic laboratory LANAR on new Food Safety Inspection Service (FSIS)-mandated E.Coli testing procedures. Dr. Javier Castro, a microbiologist from Texas A&M University, conducted the training, which included proper equipment, procedures, and requirements for a new method to test for E.Coli in meat. Implementation of the new FSIS testing procedures is required in order to maintain equivalency status for trade in meat products with the United States. The method also included that a sample strain was needed as part of the method and Dr. Castro was able to verify with a specific kit that said strain was correct.

Dairy Plant Evaluation

Honduras

December 2008

USDA coordinated experts' visits to major dairy plants in Honduras to follow up on lessons learned in previous trainings, answer plant-specific questions, and provide details on the next steps for each plant in achieving international standards in dairy sanitation. Plants were selected based on several factors, including: attendance at the previous dairy processing training, their potential for implementing suggested changes, ability to export products, and ability to influence or teach other plants in the region to also follow international standards on dairy sanitation. Of the eight plants visited, the most common problem was failure to meet U.S. regulations on pasteurization. This is a persistent issue in the other countries too, because pasteurization changes the flavor and texture of the "quesillo", the exported type of cheese. Pasteurization does occur on other products as the plants have adopted the techniques taught in previous courses. The team of experts will conduct tests on how to meet FDA regulations on heat treatment without affecting the flavor or texture. They expect, however, that labels will need to be changed to "processed cheese food", one of the few category labels that are allowed by FDA to forego pasteurization.

Poultry Health Surveillance System Evaluation

Honduras

December 2008

From December 8-12, the USDA sent a technical expert to Tegucigalpa, Honduras as follow-up to a review of Honduras' poultry surveillance system conducted in March 2000 to assess the status, identify needs, host targeted training, and provide recommendations for improvements. This follow-up trip helped determine the progress made and offered additional technical assistance. The expert concluded that Honduras was close to being prepared for equivalence and certification as conducted by international entities and APHIS. Once Honduras' surveillance system is recognized by APHIS as adequate and free of Exotic Newcastle disease, the country will be able to export raw poultry to the U.S.. Despite significant progress, there is still work to be done for Honduras to be declared free. This process has, however, united the government and private sector in a single effort to resolve the deficiencies.

Laboratory Evaluation

Republic

***Dominican
November 2008***

USDA led an evaluation of the Pesticide Residue Laboratory, Ministry of Agriculture (SEA) Laboratories in the Dominican Republic. Residue experts from the Environmental Protection Agency and Texas A&M University participated in the evaluation. This activity is part of a long-term capacity building program designed to strengthen the CAFTA-DR national laboratories in operational and testing methods to meet U.S. and international standards. Proficiency in these laboratories is vital to maintaining a functional food safety system, and ensures the application of internationally-recognized analytical methods and tests. The experts found many deficiencies and prepared a work plan to address them.

Mediterranean Fruit Fly Identifications

Honduras

October 2008

USDA sent an APHIS specialist to Honduras to teach participants how to identify the Mediterranean Fruit Fly. This integrated pest management course was created by OIRSA and the Zamorano Agricultural School in Honduras. The purpose of the course was to provide government officials, OIRSA officials and university professors a full week of training on pest management. The course gave participants hands-on experience identifying these pests and the procedures available for their control and eradication.

Regional Peppers and Tomatoes Quarantine Pest Diagnostics

All CAFTA-DR Countries

September 2008

Officials participated in a regional workshop held in Honduras for all the CAFTA-DR countries on the identification and diagnosis of the ten quarantine pests that are part of the final rule for exports of peppers and tomatoes from the CAFTA-DR countries. Participants represented both government and private sector. The course took place at the Honduran Foundation for Agricultural Investigation (FHIA) so that the experience stays in the region with local experts.

Laboratory Assessment of Progress and Planning

All CAFTA-DR Countries

August 2008

USDA/FAS led an evaluation of the National Laboratories in Nicaragua, Honduras, El Salvador, Guatemala, the Dominican Republic, Costa Rica, and Panama. The labs evaluated were in the areas of Animal Health, Pesticide Residue, and Microbiology. In addition to the evaluation, the team convened in Costa Rica to decide upon upcoming laboratory trainings for each country. Experts from the Food Safety Inspection Service, the Environmental Protection Agency and Food and Drug Administration participated in the evaluation of the labs and in the final meeting in Costa Rica. This activity is part of a long-term capacity building program aimed to strengthen the CAFTA-DR and Panama national laboratories in operational and testing methods to meet U.S. and international standards. Proficiency in these laboratories is vital to maintaining a functional food safety system, and ensures the application of internationally-recognized analytical methods and tests.

Review of Pesticide Registration Law

Guatemala

August 2008

An EPA expert traveled to Guatemala to help them review proposed Legislation for Pesticide Registration Procedures. The purpose of this activity was to meet with interested parties and discuss the status of the Guatemalan Congressional decree 37-10 which intended to amend the national pesticide registration law. Meetings included members of the Congressional Committee reviewing the proposed law, pesticide producers and the Ministry of Agriculture. A recommendation was made to discuss this regulatory proposal as part of the customs union forum, as pesticide registration requirements needed to be harmonized on a regional and CAFTA-DR basis.

Good Agricultural Practices Training

Honduras

August 2008

USDA in collaboration with FDA, trained roughly 80 fruit and vegetable producers and processors from the private and public sectors on Good Agricultural Practices (GAPs). Honduran food safety officials requested assistance to address recent pathogen problems associated with exports. In response to the request, USDA worked with the Joint Institute for Food Safety and Applied Nutrition (JIFSAN), a Food and Drug Administration (FDA) partnership with the University of Maryland, to provide hands-on training workshop in GAPs. The training provided Hondurans with an adaptable framework of currently available pest practices to reduce microbial food safety risks.

Microbiology Laboratory Training

All CAFTA-DR Countries

July 2008

USDA/FAS led a training in Guatemala City on quality control in food microbiological analysis and protocol for validation of microbiological methods; technicians of the national testing laboratories of Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Nicaragua, and Panama attended. This training is part of a long-term capacity building program aimed to strengthen the CAFTA-DR and Panama national laboratories in operational and testing methods to meet U.S. and international standards. Proficiency in food microbiological methods is vital in maintaining a functional food safety system, and ensures the application of internationally-recognized analytical methods and tests.

Bovine Semen and Embryo Evaluation

Nicaragua

July 2008

USDA/FAS sent a technical expert to Managua, Nicaragua, to review the possibility of the exportation of bovine semen and embryos from the Seminole Indian Tribe (SIT) facilities and donor bulls. The expert assessed the current status of the facility and provided recommendations for two protocols that would help the facility meet OIE standards on animal health surveillance, be declared free of various diseases, and be approved to export. A protocol for exporting and importing must be in place and would represent a significant economic impact for the region.

Regional Microbiology Laboratory Training

All CAFTA-DR Countries

July 2008

USDA/FAS Foreign Agricultural Service led a training on quality control in food microbiological analysis and protocol for validation of microbiological methods, for the technicians of the national testing laboratories of Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Nicaragua, and Panama. This training is part of a long-term capacity building program aimed to strengthen the CAFTA-DR and Panama national laboratories in operational and testing methods to meet U.S. and international standards. Proficiency in food microbiological methods is vital to maintaining a functional food safety system, and ensures the application of internationally-recognized analytical methods and tests.

Classic Swine Fever Training

Nicaragua

July 2008

A workshop was held in Nicaragua to provide information and hands on lab practical training to regulatory officials on classical swine fever and control measures. This workshop is an outcome of the larger regional train-the-trainer workshop held in May which trained country experts who took information back to be shared and replicated in each of their own countries. This training was tailored to fit Nicaragua's needs and specific situation.

Laboratory Training Pesticide Residue

All CAFTA-DR Countries

June 2008

A team of experts from EPA was sent to El Salvador to provide a regional training on pesticides residue diagnostics and the formulation of testing protocols. This training is part of a long-term capacity building program aimed to strengthen CAFTA-DR and national laboratories in operational and testing methods to meet U.S. and international standards. Proficiency in pesticide residue analyses is vital in maintaining a functional food safety system, and ensures the application of internationally-recognized analytical methods and tests.

Laboratory Training Animal Health

All CAFTA-DR Countries

June 2008

A team of experts was sent to Nicaragua to provide a regional training on animal health diagnostics. Laboratory technicians from all the CAFTA-DR countries that carry out this laboratory work participated. This training is part of a long-term capacity building program aimed to strengthen CAFTA-DR and national laboratories in operational and testing methods to meet U.S. and international standards. Proficiency in disease diagnostics is vital in maintaining a functional animal health system, and ensures the application of internationally-recognized analytical methods and tests.

The first two days were spent on proficiency testing and lectures on the test procedures. In addition, a one-on-one session was devoted to each group to explain and discuss their proficiency results so participants have a thorough understanding of the test and its interpretation.

The last two days were spent on Poultry diagnosis covering the four main poultry diseases (Avian Influenza, New Castle disease, Infectious Laryngotracheitis, Infectious Bronchitis), Lectures on Biosecurity and Biosafety in the laboratories, samples collection and transport, preparation of reagents for use in the diagnostic testing, and the importance of serology in poultry diagnosis.

FSIS Meat Inspection**Costa Rica, El Salvador, Guatemala, Honduras****May 2008**

This course was designed by FSIS to help build capacity on meat inspection at the slaughterhouse. Three participants from Guatemala attended, two from the Ministry of Agriculture and one from the Ministry of Health. The course included site visits/assessments, classroom, and practical in-plant training on: FSIS regulatory standards for meat inspection; pathogen reduction (PR)/HACCP systems; SSOP's; Good Manufacturing Practices (GMP's) for meat products; and good safety regulatory enforcement.

Swine Surveillance System**All CAFTA-DR Countries****May 2008**

A regional course was provided to all the CAFTA-DR countries in Guatemala. This was set up as a train-the-trainer approach and included participation from all the Ministries of Agriculture from the CAFTA-DR countries as well as presentations from APHIS, the United Nations Food and Agriculture Organization (FAO), and OIRSA. The purpose was to review all the countries' Classic Swine Fever programs and train technicians on proven practices for the eradication of the disease. The trained personnel will now continue the training to both government officials and private sector personnel in each of the CAFTA-DR countries.

Good Dairy Processing Practices**Honduras****May 2008**

USDA organized training on FDA food safety requirements for dairy processing in Honduras. This course was provided information on FDA requirements for Good Manufacturing Practices (GMP's), HACCP, and Pasteurization in advance of the FDA inspections of Honduran facilities, scheduled to occur in June 2008. The training builds capacity of the industry to implement improvements to the food safety management systems and of inspection officials to provide adequate oversight and verification of those systems. Comments from Ministry Officials after the FDA audits were very positive and increased the amount of plants that are eligible for export.

Good Dairy Processing Practices**El Salvador****May 2008**

FAS sponsored training on FDA food safety requirements for dairy processing in El Salvador. This course was provided in El Salvador with information on FDA requirements for Good Manufacturing Practices (GMP's), HACCP, and Pasteurization in advance of the FDA inspections of their facilities, scheduled to occur in June 2008. The training builds capacity of the industry to implement improvements to the food safety management systems and of inspection officials to provide adequate oversight and verification of those systems. The four day course included three days of classroom information and a one day site visit to practice knowledge acquired. Comments from Ministry Officials after the FDA audits were very positive and they expect to increase the amount of plants that are eligible for export.

Good Dairy Sanitation Course**Nicaragua****May 2008**

A course on good dairy sanitation was provided to the Nicaraguan dairy producers sector. This course was designed to help small producers improve the quality and safety of their milk. Experts from Utah State University provided training for 3 days on all aspects of milking, including a day of practice in the field. The attendants included small producers and officials from the Ministries of Health and Agriculture.

Regional Pest Risk Assessment Training

All CAFTA-DR Countries

April 2008

USDA/FAS hosted a Pest-Risk Assessment workshop in San Pedro Sula, Honduras. Participants to the workshop included regulatory officials from all the CAFTA-DR countries. FAS worked closely with APHIS officials to develop this training, and APHIS specialists conducted the workshop. The purpose was to provide the necessary steps needed to get a new fresh product through the US regulatory system. The workshop also included a site visit to laboratories in the Honduran Agricultural Research Foundation (FHIA). The workshop builds institutional strengthening at the Ministries of Agriculture to improve their procedures and increase the speed in which new fresh plant products can achieve market access to the US. In addition, an outline of the new Q56 regulation was provided. This is the new APHIS regulation that went into effect in May of 2008 that allows for an expedited PRA procedure and allows countries to achieve market access at an accelerate rate.

Laboratory Training for Food Microbiology

All CAFTA-DR Countries

March 2008

A team of experts traveled to El Salvador to provide training in food microbiology and trained laboratory technicians from CAFTA-DR countries on advanced analytical methods. The goal of this on-going program is to ensure that commodities entering U.S. markets from CAFTA-DR countries comply with U.S. food safety regulations and also ensure that testing methods used by CAFTA-DR countries on U.S. imports are conducted accurately, using standard international procedures. USAID and the USDA Emerging Markets Program (EMP) in support of CAFTA-DR provided funding for this program.

Regional Animal Health and Pesticide Residues Laboratory Training

All CAFTA-DR Countries

March 2008

A team of experts traveled to Honduras to provide training in the areas of animal health and pesticide residues and trained laboratory technicians from CAFTA-DR countries on advanced analytical methods. The goal of this on-going program is to ensure that commodities entering the United States from CAFTA-DR countries comply with U.S. food safety and animal disease regulations, and also ensure that testing methods used by CAFTA-DR countries on U.S. imports are conducted accurately, using standard international procedures. Three protocols for Real Time polymerase chain reaction (PCR) were established during this training that included Newcastle, Salmonella and Avian Influenza.

Pesticide Regulatory Guidance

Costa Rica

March 2008

The Foreign Agricultural Service (FAS) in collaboration with the U.S. Environmental Protection Agency (EPA) sent a pesticide expert from EPA to Costa Rican to provide technical assistance to officials on pesticide regulatory policies. Meetings were held with Ministry of Agriculture officials involved with pesticide registrations. Focus of discussions was on the registration process of "generic" pesticides and on approaches under CAFTA-DR to implement a sound regional registration system.

Pre-audit equivalence inspection of the Poultry Surveillance

Honduras

March 2008

A pre-audit of Honduras' poultry surveillance system was performed and focused on poultry surveillance at the farm level to establish that the country is free of Exotic Newcastle Disease. This is a pre-condition to export raw poultry to the U.S. At the end of the visit, industry and government, in cooperation with the expert, wrote an action plan that could allow Honduras to export raw poultry to the U.S. within two years. Participants included poultry inspectors from the Ministry of Agriculture and members of the Honduran poultry industry.

Central America Regional Meeting on Pesticide Tolerance & Registration **All**
Central America Countries **February 2008**

FAS, in collaboration with the U.S. Environmental Protection Agency (EPA), sent a pesticide expert from EPA to the a regional customs union meeting on Pesticide Registration and Tolerance standards for the Central American Region held in El Salvador. The purpose of this technical assistance was to help the Centrals harmonize their regulations on Residue Levels and Registration Standards. In addition, EPA met with government officials and discussed the current situation of pesticide registration and levels in Central America and U.S. requirements for exports.

Poultry Surveillance Activity
El Salvador

February 2008

A delegation from El Salvador visited the United States to learn about U.S. poultry inspection systems. This activity aimed to promote relations between the U.S and El Salvador and to help the Salvadorian Government establish a poultry surveillance system that could achieve equivalency with the US. The delegation from El Salvador consisted of one lab technician, two food safety inspectors, one animal health specialist and two legal advisors. The delegation began meetings at USDA headquarters in Washington DC. Four members of the delegation then traveled to Atlanta, Georgia to visit FSIS laboratories and poultry processing facilities while the two legal advisors continued meetings in Washington with FSIS. The group reconvened in Washington, DC to conduct exit interviews and depart to El Salvador.

Plant Pest Diagnostic Training
All CAFTA-DR Countries

January 2008

USDA and the University of Florida provided technical training to national plant laboratory personnel from the Central American and Dominican Free Trade Agreement (CAFTA-DR) countries. The training was held in the Dominican Republic and focused on fundamental practices such as quality management systems (QMS), standard operating procedures and remote diagnostics. It also included a site visit to the Dominican Institute for Agricultural and Forest Research (IDIAF). The long-term goal of this activity is to expand agricultural trade by strengthening CAFTA-DR national laboratories in operational and testing methods to meet U.S. and international standards. Ten diagnostic protocols were written during this training that are now being applied regionally.

FDA Food Labeling Requirements
Guatemala

January 2008

FAS sponsored an FDA Food Labeling regulations training in Guatemala. The course focused on general labeling requirements by FDA as well as detailed information required for specific commodities including meat, poultry, processed products and cases of fresh produce. Private sector representatives currently exporting or trying to export to the United States and local government representatives for labeling issues participated. Participants reviewed the specific regulations on labeling and brought in actual product labels to be examined by the expert.

FDA Food Labeling Regulations Requirements
El Salvador

January 2008

Training on FDA Food Labeling Regulations was provided in San Salvador. The course focused on U.S. Food and Drug Administration (FDA) general labeling requirements, and detailed information required for specific commodities including meat, poultry, processed products and cases of fresh produce. Participants included a combination of private sector representatives currently exporting or trying to export to the United States, as well as local government representatives. A total of 123 participants attended the three-day course. The first two days focused on regulations. On the third day, participants brought in actual labels to examine and discuss the various issues.

Slaughterhouse Pre-audit Equivalence Inspection

Honduras

January 2008

A pre-audit of a Honduras poultry plant and beef plant was performed and technical assistance provided on proper slaughterhouse inspection techniques. The technical assistance, conducted in cooperation with FSIS, focused on details of proper and equivalent poultry line inspection techniques and methods, as well as bovine carcass inspection. The poultry plant visited was the prime candidate for export to the United States. The beef plant visited is already exporting to the U.S., but was scheduled for an official audit by FSIS in February. Discussion of the plant's deficiencies and ways to address them will help facilitate equivalence certification by FSIS and allow existing plants to continue to comply with U.S. regulations. Participants included inspectors from the Ministries of Agriculture and Health in Honduras as well as key private sector stakeholders in the poultry and meat industries.

Laboratory Quality Management Systems

All CAFTA-DR Countries

December 2007

Training was provided to the Quality Control, Animal Health, and Microbiology personnel of all the CAFTA-DR countries on setting up a quality control system for their labs. The course included certification process of ISO 17025 and the documentation needed to meet ISO standards. The course also included one day at the laboratory to review Costa Rica's experience in implementing the system. The last day training covered FSIS and FDA regulations for Salmonella testing and how to properly carry out the test. Costa Rica is certified on this procedure and a visit was also conducted at their laboratory to review the procedure in a laboratory.

FDA Food Labeling Requirements

Honduras

October 2007

FAS sponsored an FDA Food Labeling regulations training in San Pedro Sula, Honduras. The course focused on general labeling requirements by FDA as well as detailed information required for specific commodities including meat, poultry, processed products and cases of fresh produce. The participants were a combination of private sector representatives currently exporting or trying to export to the United States, and local government representatives for labeling issues. The first two days provided review of the specific regulations on labeling, while the third day offered hands-on learning as participants brought in actual product labels to be examined by the expert.

Laboratory Managers Training

All CAFTA-DR Countries

September 2007

This was the second of the trainings provided to the Laboratory Managers of all the CAFTA-DR countries. This training emphasized quality control, laboratory information management systems (LIMS) and review of the SSOP's that the groups had been working on. The participants included managers of animal health, plant health and food safety laboratories of both the Ministries of Agriculture and Health.

Good Agricultural Practices (GAPS)

Nicaragua

September 2007

This five-day food safety in fresh produce course was provided in conjunction with JIFSAN and FDA. It included one day in the field and addressed issues such as SSOPs, HACCP, and others that may affect the indirect contamination of fresh produce. In addition, an expert also went down to present on aflatoxin management. This expert also spent a day and half in the field reviewing what the problems were and how to address them. Nicaragua has problem with aflatoxins that limits its ability to export peanuts and could endanger cheese exports.

Poultry Plant Pre-Audits

Nicaragua

September 2007

This was a follow up of the ongoing training that is being provided to both the public and private sector in Nicaragua. The goal of this review of the plants was to establish how much of the training that has being provided in the last two years has been incorporated in the country. In addition, it provided the opportunity to both the government and the plants to continue to improve prior to an official inspection by FSIS

US Regulatory System**All CAFTA-DR Countries****August 2007**

This was a regional course on how the US regulatory system works. It was designed to explain the different agencies that oversee the US regulatory system. The seminar included presentations by FDA, APHIS (both plant health and animal health), FSIS and Customs. This course provided the directors of animal health, plant health, and food safety from all the CAFTA-DR countries the opportunity to meet their counterparts in the U.S. government and begin to resolve issues directly. This activity was funded by USDA.

Dairy Training**Nicaragua****August 2007**

This 3-day course focused on food safety issues at the processing level. Large and small ajor processors as well as a small one were invited to participate in this course. The course included seminars and visits to plants to provide training on pasteurization, HACCP for dairy plants, proper equipment, Standard Operating Procedures and a section on aflatoxins.

Risk Assessment Course**All CAFTA-DR Countries****August 2007**

A two week course was provided in conjunction with JIFSAN and FDA on risk assessment for processed foods. This was a regional course that included all aspects of risk assessment as well as statistical exercises on establishing risk levels. FDA also reviewed the regulations that apply to food and allowable levels of residue and testing methods.

FDA Labeling Training**Nicaragua****July 2007**

A course was organized in Nicaragua to explain the FDA regulations on labeling. This was a two day course that discussed regulations on packaged food, fruits and vegetables, and meat. The goal of this training is to help the Nicaraguan industry reduce the level of detentions due to improper labeling which was still at 69% of exports.

Swine Surveillance Workshop**Nicaragua****July 2007**

USDA/FAS coordinated with APHIS to provide training on swine surveillance. This overall objective was the help the Nicaraguans establish a surveillance system that will help them eradicate Classic Swine Fever and pass an APHIS audit in order to be able to export pork product to the U.S.

Poultry Surveillance Systems Workshop**All CAFTA-DR Countries****June 2007**

USDA/FAS, in coordination with APHIS and FSIS, conducted a regional workshop in Managua on poultry surveillance systems. The overall goal of this workshop was to provide regulatory and industry officials in the CAFTA-DR countries with the knowledge to be able to begin to build poultry surveillance systems that meet OIE and APHIS standards. Building these animal health systems will not only increase trade with Central America but will also, and perhaps more importantly, especially in the short-term, help to enhance agricultural biosecurity in Central America and the United States.

Ports & Containers Inspection**All CAFTA-DR Countries****June 2007**

USDA/FAS, in cooperation with APHIS, conducted a regional training on regulations for the importation of plants and plant products to the U.S. and inspection techniques in order to reduce the number of shipments from CAFTA-DR countries detained at U.S. ports of entry for phytosanitary infractions. This activity was carried out in Honduras.

FSIS Meat Inspection Training in Puerto Rico**All CAFTA-DR Countries****May 2007**

USDA/FAS supported a regional course that detailed a comprehensive approach to meat inspection techniques and regulations. The course, organized by FSIS on a yearly basis, is equivalent to the course required for U.S. inspectors. All countries with exception of Dominican Republic attended.

Phytosanitary Principles**All CAFTA-DR Countries****May 2007**

USDA/FAS, in conjunction with APHIS, organized a regional course on phytosanitary principles that included training on pest risk assessment, Q37 and Q56. In addition, the CAFTA-DR partners were trained on how the U.S. conducts its surveillance system and port inspection procedures as well as pest database management. A total of eleven APHIS representatives conducted this intense training.

Good Laboratory Practices**All CAFTA-DR Countries****April 2007**

A course was designed for the managers of each evaluated laboratory. The course took place in Nicaragua and included participants from all CAFTA-DR countries. The four-day course covered operational management aspects of laboratories, including QA/QC, GLP, Development of SOP's, Laboratory Safety, Laboratory Information Management Systems (LIMS), and Distance Diagnostics. This training was created based on earlier laboratory evaluations coordinated through Texas A&M University, national laboratories for animal health, plant health, microbiology, and residue testing. In addition to the classroom-type courses, there were break-out sessions where each member addressed specific problems in their areas.

Good Dairy Sanitation Course**Guatemala****April 2007**

A course on good dairy sanitation was provided to Guatemalan dairy producers. This course was designed to help small producers improve the quality and safety of their milk. Experts from Utah State University provided training for three days on all aspects of milking, including a day of practice in the field. The attendants included small producers and officials from the Ministry of Health and Ministry of Agriculture.

Good Dairy Sanitation Course**El Salvador****April 2007**

A course on good dairy sanitation was provided to Salvadorian dairy producers. This course was designed to help small producers improve the quality and safety of their milk. Experts from Utah State University provided training for three days on all aspects of milking, including a day of practice in the field. The attendants included small producers and officials from the Ministry of Health and Ministry of Agriculture.

Good Dairy Sanitation Course**Honduras****March 2007**

A course on good dairy sanitation was provided to Honduran dairy producers. This course was designed to help small producers improve the quality and safety of their milk. Experts from Utah State University provided training for three days on all aspects of milking, including a day of practice in the field. The attendants included small producers and officials from the Ministry of Health and Ministry of Agriculture.

Good Dairy Sanitation Course**Nicaragua****March 2007**

A course on good dairy sanitation was provided to the Nicaraguan dairy producers sector. This course was designed to help small producers improve the quality and safety of their milk. Experts from Utah State University provided training for 3 days on all aspects of milking, including a day of practice in the field. The attendants included small producers and officials from the Ministries of Health and Agriculture.

Pre-Inspection of Beef and Poultry Plants**Guatemala****January 2007**

USDA/FAS sent a retired FSIS expert to provide pre-audits of beef and poultry slaughter plants to prepare them for equivalence. The expert also helped the GoG fill out the equivalence forms sent by FSIS.

National Laboratory Assessment**Nicaragua****February 2007**

A USDA-led team of experts was sent to Nicaragua to assess its national agricultural laboratories. The team consisted of experts in pesticide residue, food and dairy microbiology, animal health and plant health. The purpose of this assessment was to determine the condition of the laboratories, identify training needs, and provide recommendations for the Ministry of Agriculture to achieve certification on specific testing methods.

Poultry Inspection Techniques**Honduras****December 2006**

This training addressed proper inspection techniques for slaughterhouses with an emphasis on line-inspections. Specific topics covered include line speed, microbiological testing, chiller operation, carcass temperatures, pest control, and additional relevant USDA regulations.

Microbiological Standards Seminar**All CAFTA-DR Countries****November 2006**

USDA/FAS sponsored a seminar on standardizing microbiological criteria to assess food safety for regional harmonization. A panel of FDA experts explained the required microbiological tests in processed food, the criteria for considering those tests, tolerance levels for bacteria (particularly E. coli regulations), and how and why FDA testing requires total counts versus CODEX testing which uses a different procedure. They also demonstrated that FDA regulations provide protection equivalent to CODEX.

Peppers and Tomatoes Pest Risk Workshop**All CAFTA-DR Countries****November 2006**

USDA/FAS, in cooperation with USDA/APHIS, provided a regional training on compliance regulations for mitigating measures to export peppers and tomatoes to the United States. This regulation was established as the final rule for admissibility as part of the Pest Risk Assessment.

Poultry Surveillance Systems Assessment**Honduras****November 2006**

USDA/FAS, in cooperation with the Honduran Government provided a baseline assessment of the public poultry inspection system as well as poultry slaughter plants in Honduras. The Avian Pathology training and Poultry Inspection Techniques Workshop were follow-on activities to this assessment.

FDA Advisor on Harmonization of Regulations**All CAFTA-DR Countries****Oct-Dec. 2006**

On three different occasions during between October and December 2006, an FDA expert was sent to the regional meetings held in Central America to help them harmonize regulations. These meetings are part of the customs union process that the Centrals are working on to harmonize all SPS regulations. During these three meetings the FDA expert helped them design standards for approved ingredients, microbiological residue levels and the accepted testing methods for these.

National Laboratory Assessments**Guatemala****August 2006**

USDA/FAS organized an assessment of the laboratories for microbiology, and animal and plant health. This assessment resulted in specific recommendations for improvement of lab standards and provided USDA with feedback on future technical assistance needs. In addition, \$1 million was provided to USDA's CAFTA-DR partners under Food for Progress to aid in the purchase of necessary laboratory equipment and supplies.

Biotechnology Course**All CAFTA-DR Countries****September 2006**

This three-week course in Washington D.C. was organized for the members of the National Committee for Modified Organisms. This workshop detailed international standards for Genetically Modified Organisms (GMO's) and the basic scientific methodology for identification and classification of GMO's.

Avian Pathology Workshop

All CAFTA-DR Countries

September 2006

This regional workshop concentrated on proper avian health surveillance systems and diagnostics. Emphasis was put on the top four diseases (Newcastle, Avian Influenza, Laryngotracheitis, and Infectious Bursal Disease) reportable under the OIE for exportation of poultry and poultry products.

Tuberculosis and Brucellosis Technical Assistance

All CAFTA-DR Countries

May 2006

USDA/FAS organized a regional workshop on developing an animal health surveillance system and proper diagnostics of tuberculosis and brucellosis. Course was held in Guatemala. The presenters were all from APHIS and included world-renowned experts. All CAFTA-DR countries participated.

FSIS Meat Inspection Training in Puerto Rico

All CAFTA-DR Countries

May 2006

USDA/FAS supported a regional course that detailed a comprehensive approach to meat inspection techniques and regulations. The course, organized by FSIS on a yearly basis, is equivalent to the course required for U.S. inspectors. All Countries participated except for Dominican Republic.

Poultry Inspection Techniques

Honduras

May 2006

This training addressed proper inspection techniques for slaughterhouses with an emphasis on HACCP, SSOP, FSIS rules of practice, risk assessment, and U.S. regulations on salmonella.

U.S. Meat Carcass Processing and Choice Cut training

Nicaragua

April 2006

USDA/FAS provided a processing/choice cut workshop to the meat slaughtering industry to harmonize with U.S. preferences for choice cuts of meat as well as to increase meat carcass yield for exportable product.

Port of Miami Visit

Guatemala

March 2006

USDA/FAS, in cooperation with APHIS, organized a visit for plant health inspectors to the Miami Port of Entry to review APHIS inspection procedures for acceptance of plant and plant products in the United States. This cooperative experience allowed for a hands-on view of equivalent procedures to U.S. methods for detecting pests.

Port of Miami Visit

Costa Rica

March 2006

USDA/FAS, in coordination with APHIS, organized a visit for plant health inspectors from the Miami Port of Entry to review APHIS inspection procedures for acceptance of plant and plant products in the United States. This cooperative experience allowed for a hands-on view of equivalent procedures to U.S. methods for detecting pests.

U.S. Meat Inspection System Audit

Honduras

March 2006

A team of inspectors from Honduras traveled to the United States to audit U.S. meat and poultry plants to verify that the U.S. inspection systems comply with international food safety standards in order for the countries to recognize them as equivalent. The teams also learned about and observed first-hand the details of compliance with international food safety standards so they could use the standards in equivalence auditing of other countries.

Poultry Surveillance Systems Assessment

Nicaragua

March 2006

USDA/FAS, in cooperation with the Nicaraguan Government, provided a baseline assessment of the public poultry inspection system as well as poultry slaughter plants in Nicaragua. The Avian Pathology training (see below) was a follow-on to this assessment. Additional workshops for poultry surveillance are planned for FY2007.

**Good Agricultural Practices
Salvador**

El

February 2006

USDA/FAS coordinated a workshop that addressed FDA regulations on food safety issues regarding fresh agricultural products. Training included pathogen reduction, product handling, packaging, safe transport, and standard sanitary practices.

**Dairy Plant Audits by FDA
El Salvador**

February 2006

USDA/FAS, in cooperation with the FDA, audited eight dairy plants to establish areas for future technical assistance that will facilitate the development of FDA equivalent regulations in the Salvadoran dairy industry.

**U.S. Meat Inspection System Audit
El Salvador**

February 2006

A team of inspectors from El Salvador traveled to the United States to audit U.S. meat and poultry plants to verify U.S. inspection systems compliance with international food safety standards for equivalence recognition and learned about auditing other countries.

**U.S. Meat Inspection System Audit
Nicaragua**

January 2006

A team of inspectors from Nicaragua traveled to the United States to audit U.S. meat and poultry plants to verify that the U.S. inspection systems comply with international food safety standards in order for the countries to recognize them as equivalent. The teams also learned about and observed first-hand the details of compliance with international food safety standards for implementation of such standards in equivalence auditing of other countries.

**World Trade Organization (WTO) SPS Agreement
All CAFTA-DR Countries**

December 2005

USDA and WTO personnel provided a regional training on the details of the SPS agreement as well as the rights and obligations of each country. This activity was funded by USDA.

**Hazard Analysis and Critical Control Point (HACCP) Training
Guatemala**

October 2005

As part of the equivalence process, HACCP principles were outlined in a workshop organized by USDA/FAS. HACCP guidelines are an integral part of USDA requirements to export meat and meat products to the United States for both processing plants and slaughterhouses.

**Hazard Analysis and Critical Control Point (HACCP) Training
El Salvador**

October 2005

As part of the equivalency process, HACCP principles were outlined in a workshop organized by USDA/FAS. HACCP guidelines are an integral part of USDA requirements to export meat and meat products to the United States for both processing plants and slaughterhouses. The next two parts of this 3-part training were scheduled for 2007-08.

**SPS Equivalence
Nicaragua**

September 2005

USDA/FAS provided a workshop to Nicaraguan participants that detailed the legal and practical implications of the WTO SPS agreement with regard to equivalence, as well as described the legal framework for the mechanism of policy change appropriate for granting equivalence.

**SPS Equivalence
El Salvador**

September 2005

USDA/FAS organized a workshop for Salvadoran participants that detailed the practical implications of the WTO SPS agreement with regard to equivalence, and described the legal framework for the mechanism of policy change appropriate for granting equivalence.

SPS Equivalence

Honduras

September 2005

USDA/FAS organized a workshop for Honduran participants that detailed the legal and practical implications of the WTO SPS agreement with regard to equivalence and described the legal framework for the policy change appropriate for granting equivalence.

Overview of U.S. Regulations Workshop

All CAFTA-DR Countries

December 2004

In cooperation with FDA, APHIS, FSIS, and U.S. Customs, FAS organized a workshop to cover U.S. agricultural trade regulations. This activity was funded by USDA.

Cochran Fellowship Program⁵

FY2005 – FY2010

USDA/FAS has sponsored 216 Cochran fellows from Central America and the Dominican Republic since fiscal year 2005. The fellows participated in a wide variety of training including, but not limited to: Import and Export Procedures; Dairy Inspection; HACCP Practices and Policies; Food Safety; Cold Chain Management; Transboundary Animal Diseases; Swine Production and Management; Veterinary Epidemiology; Dairy Herd Management; and Fruit and Vegetable Production and Handling.

Food for Progress Assistance

Dominican Republic

2009 Food for Progress programming valued at \$11.5 million is facilitating the Dominican Republic's capacity to fully engage in modern commercial trade in food and agricultural products. The activities include upgrading of laboratory infrastructure, operations and analytical testing capabilities; development of animal health surveillance, inspection and sanitary standards for animal products; risk assessment methodologies and development of risk mitigation methods; traceability of agricultural products through the production and marketing chain; coordination and participation in international standard-setting organizations; and strengthening of domestic Sanitary and Phyto-Sanitary institutions and infrastructure, such as animal and plant quarantine stations in ports and airports.

Food for Progress Assistance

El Salvador

A 2004 Food for Progress, Government to Government agreement programming valued at \$4,425,000 strengthens trade capacity in El Salvador through broad-based and sustainable economic development activities in rural communities. Activities include introduction of potable water systems, and provision of latrines and community health education in key rural communities; rural infrastructure and technical assistance to raise incomes of rural area residents; promotion of micro and small agribusiness efforts in developing non-traditional crops; and pest-risk analysis and improvements in lab sample techniques to generate export-ready commodities.

A 2010 Food for Progress, Government to Government agreement programming valued at \$12 million to strengthen trade capacity in El Salvador through SPS and economic and social development projects. The SPS activities emphasize integrated regulatory information systems, upgraded laboratory infrastructure and analytical methods, national WTO/SPS enquiry points, promotion of animal health, inspection and sanitary standards for animal products, and risk assessment methodologies. The economic and social development projects focus on training and technical assistance for small and medium-sized farmers.

A 2005 Food for Progress, Government to Government agreement programming valued at \$5 million strengthens trade capacity in El Salvador through broad-based and sustainable economic development activities in rural communities. Activities include introduction of potable water systems, and provision of latrines and community health education in key rural communities; rural infrastructure and technical assistance to raise incomes of rural area residents; promotion of micro and small agribusiness efforts in developing non-traditional crops; and pest-risk analysis and improvements in lab sample techniques to generate export-ready commodities.

⁵ Additional Cochran Program details by country can be found in Appendix B, Country Reports

A 2007 Food for Progress, Government to Government agreement programming valued at \$5,022,000 strengthens trade capacity in El Salvador through broad-based and sustainable economic development activities in rural communities. Activities include introduction of potable water systems, and provision of latrines and community health education in key rural communities; rural infrastructure and technical assistance to raise incomes of rural area residents; promotion of micro and small agribusiness efforts in developing non-traditional crops; and pest-risk analysis and improvements in lab sample techniques to generate export-ready commodities.

Food Assistance

Guatemala

A 2008 Food for Progress agreement with Texas A&M

Programming valued at \$10 million helps farmers obtain better yields through improved production techniques. Farmers sell their products in local and foreign markets, use less chemical fertilizers and more organic fertilizers. Also, greenhouses, irrigation systems, composting units and a food processing center were established in rural communities; and farmers have increased their knowledge about pest management, plant disease management, and food safety. Additional food processing centers and crop production facilities are being established and new markets identified for agricultural products.

2010 Food for Progress agreement with Universidad del Valle

Food aid valued at \$3.2 million will be monetized to support: Universidad del Valle de Guatemala's Administration, Agricultural Trade Capacity Building, and Trainings (Teachers, Leadership, Farmer, and Youth)

2008 Food for Education Program

Valued at \$24.92 million, awarded to Association SHARE de Guatemala. Activities include school feeding, take home rations, school gardens, and capacity building.

2010 Food for Education Program Project Concern International (PCI)

Valued at \$5.73 million, awarded to Project Concern International (PCI). Terms and conditions of agreement are currently being negotiated. Activities include school feeding, health and nutrition education, teacher training, and water and sanitation improvements.

Food for Progress Assistance

Honduras

2008 Food for Progress agreement with TechnoServe

Programming valued at \$5.6 million assist smallholder farmers implement diversification programs that integrate biofuel feedstock with other high value products like fine cocoa, roots and tubers, and dairy, to help agribusinesses access export markets for these products under the CAFTA framework.

2006 Food for Progress agreement with TechnoServe

Programming valued at \$3 million increases the competitiveness of coffee and cocoa producer groups, through technical assistance, marketing support, business development, and financial linkages for investments and working capital. In the fine cocoa component, the program revitalizes the Honduran cocoa industry that was damaged between 1998 and 2002 by Hurricane Mitch, the arrival of monilia (a fungal disease destroying most of the fruit), and low prices in the international market. TS has identified fine cocoa varieties that command a premium in the international market and will enable Honduras to compete in niche markets rather than regular cocoa markets.

2006 Food for Progress Government to Government agreement

Programming valued at \$4.5 million improves infrastructure, access to resources and market conditions for small and medium-sized producers and agribusinesses by supporting the "Strategic Plan of the Agri-Food Sector and Rural Areas 2007-2009"; and carrying out trade capacity building activities developed in the context of the U.S.-Dominican Republic-Central American Free Trade Agreement (DR-CAFTA).

2006 Food for Progress agreement with CARE

Valued at \$1.2 million is focused on market development, training teachers, farmers leaders and youth; irrigation, micro-credit and technical assistance for farmers and agribusinesses.

2010 Monetized funds used to support FINCA International microfinance programs in country. The program in Honduras is for \$7.8 million in FY 2010.

Food for Progress Assistance

Nicaragua

2008 Food for Progress agreement with Project Concern International

Programming valued at \$6.7 million builds capacity of local producers with raising, production and sale of agricultural products, promoting animal health, and improving access to quality foods by vulnerable populations.

2010 Government to Government SPS programs

The approved program value for Nicaragua is for \$11.4 million in FY 2010.

2008 Food for Progress agreement with FINCA International

Microfinance programs in country. The program in Nicaragua is for \$5.6 million in FY 2007.

2005 Food for Progress Government to Government agreement

Valued at \$4.5 million were used to support GON SPS programs in country. The projects have had significant impact in addressing SPS issues in Nicaragua and facilitating regional and international trade by promoting animal health (PROVESA), plant health (PROVESAVE) and establishing good agricultural practices.

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**Cost
SPS Capacity**

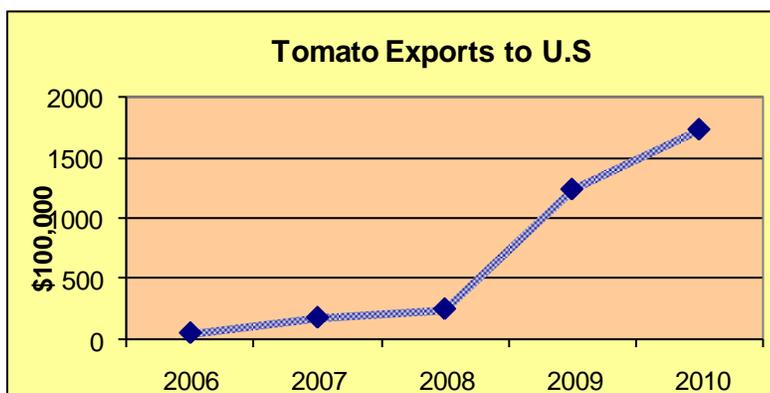
Summary
Moving Forward
SPS Capacity Building Activities,

Summary

The US Department of Agriculture’s (USDA) Foreign Agricultural Service (FAS), with funding from the US Agency for International Development (USAID), has worked closely with the government of Costa Rica since the signing of CAFTA-DR in 2005 to provide prioritized technical assistance for both the public sector and private industry. These activities have been part of Sanitary Phytosanitary (SPS) trade capacity building efforts in Costa Rica which are currently in progress to improve their agricultural trade in the international marketplace (activity details in Appendix A). To date 295 people from both the public and private sector have been trained and over 32 firms have benefited from technical assistance since 2005.

The Program has contributed to significant impact, including:

- Costa Rica’s Residue Laboratory has achieved ISO 17025 Certification
- Sanitary and Phytosanitary (SPS) capacity building has helped Costa Rica organizations meet USDA Animal and Plant Health Inspection Service (APHIS) mitigating measures required to export to the U.S., resulting in imports by the United States of over \$3.4 million of fresh tomatoes since 2006.
- Costa Rica has joined with other CAFTA-DR countries to form a working group to harmonize laboratory procedures and standardize testing methods. With help from US experts, over 15 diagnostic protocols have been harmonized that meet internationally accepted standards to date.
- Costa Rica has established a “Clean Stock Program” for ornamental flowers that has decrease detentions by at least 20%. Trainings to develop this program included in country inspector training and port visits to Miami Port. This activity was carried out in conjunction with APHIS. In addition to lowering detentions, the establishment of this clean stock program has allowed Costa Rica to negotiate a new final rule for the access of ornamental plants larger than 18 inches. The final rule has not yet been approved but it is moving forward and once passed, the economic impact can be over \$10 million a year.



Technical assistance focusing on U.S. labeling requirements contributed to a decrease in the number of refusals due to labeling of agricultural

Institutions that received Targeted Capacity Building Activities

1. Ministry of Agriculture Animal Health Laboratory
2. Ministry of Agriculture Plant Health Laboratory
3. Pesticide Residue Laboratory
4. Ministry of Agriculture Animal Health Division
5. Ministry of Agriculture Plant Health Division

Laws Passed with US Technical Assistance

1. Law creating the mechanism for Equivalence 2006
2. Law Granting the US Meat System Equivalence 2007

Moving Forward

Costa Rica did not turn in the GAPS report requested by USTR to establish their time lines, therefore, USDA experts used their own data to develop recommendations for moving forward. Below are those recommendations.

Animal Health

- **Establish a National Indemnity Program** and guarantee funding for such a program in order to provide the incentives for people to report suspected cases of disease and pay producers for animals taken by the State. Such a program should specifically earmark funds for an initial 2-week period of a national emergency should there occur a Foreign Animal Disease (FAD) outbreak.
- **Allocate sufficient funds to maintain adequate staffing and resources** for a viable animal health system that includes a quality surveillance system of all animal diseases. Adequate funds and well-trained staff ensure the quality of all the components of an animal health and surveillance system.
- **Implement a National Veterinary Accreditation Program.** Such a program is necessary in order to have an adequate number of well-trained veterinarians to provide day-to-day services to livestock farmers in the country as well as provide immediate responses to national outbreaks of disease.
- **Establish a national animal identification program** within the public sector. This will help ensure viable animal health control and eradication programs to function properly and ensure traceability of diseased animals.

Food Safety

- **Update/strengthen the current pesticide regulations** to be harmonized CAFTA-DR (CACU) regulations.
- **Strengthen/improve the enforcement and compliance programs for pesticide post-registration activities** (GAP's, safe-use, container disposal, etc.).
- **Develop a national food safety pesticide maximum residue level (MRL) program** that includes a national pesticide MRL monitoring program to improve government oversight.
- **Continue to improve the analytical performance of all the National Laboratories** (pesticide residue laboratory). Expand the number of pesticide residues (analyses) that can be screened for in food samples.
- **Develop a national food safety (pesticide MRL) program.**

Laboratories

- **Allocate adequate funds and hire well-trained staff for all laboratories.** The national laboratories currently charges for diagnostic services; however earned income from fees does not always remain in the budget. These funds should be used to maintain adequate supplies, buy new equipment, and hire and keep highly trained personnel.

**Costa Rica
SPS Capacity Building Activities
2005-2011**

Country	Participants	Public Sector	Private Sector	Female	Firms
Cost Rica	295	232	63	122	32

Reviews of Codex MRLs

Costa Rica, Guatemala, Honduras

May 2011

FAS collaborated with the United Nation's Food and Agriculture Organization (FAO) to identify and train experts from the Latin America region on pesticide residue evaluations to establish Codex MRLs. The objective of the training is to increase the number of technical experts who can serve on FAO's technical review committee for establishing MRLs, and therefore increase the number of Codex MRLs established annually. Additionally, a collaborative program between FAS and the Latin American countries will be proposed to generate residue data and establish MRLs for targeted specialty crops. This project was support USDA trade initiatives by establishing international pesticide trade standards for U.S. specialty crops. This program is funded by the Emerging Markets Program of USDA.

Food Safety Directors Meeting

All Central American Countries

April 2011

A 3-day regional meeting was conducted in El Salvador with the participation of Food Safety Directors from all Central America Countries to review the recently passed Central American Microbiological Standards for Food. Participants included Food Directors from both Ministry of Health and Ministry of Agriculture. The purpose of this meeting was to reevaluate some standards that were set by the Ministry of Health that were not consistent with internationally accepted standards. In addition, the Ministries of Agriculture were not included in the creation of this new regulation and this meeting was to provide both working groups the opportunity to work together on the revised legislation. This activity was organized by OIRSA though funds provided by USDA for continued work on harmonizing Central American food safety standards. OIRSA also contribute its own funds to cover venue, translation, transportation and coffee breaks.

Residue Laboratory Training

August 2010

USDA/FAS led a pesticide residue laboratory training for Ministry of Agriculture technicians in the Dominican Republic. Residue experts from the FDA and EPA conducted the training on residue analysis and laboratory accreditation. This activity was part of a long-term capacity building program aimed to strengthen the Central American national laboratories in operational and testing methods to meet U.S. and international standards. Proficiency in these laboratories is vital to maintaining a functional food safety system, and ensures the application of internationally-recognized analytical methods and tests.

Good Laboratory Practices for Pesticide Residue Laboratories

August 2010

In collaboration with the Office of Enforcement and Compliance Assurance, Environmental Protection Agency (EPA), and Rutgers University's Interregional Research Project Number 4 (IR-4), USDA/FAS trained pesticide technicians in good laboratory practices (GLP) in San Jose, Costa Rica. The training was conducted in cooperation with the University of Costa Rica. Compliance with EPA's GLP standards ensures the quality and integrity of laboratory test data, which is submitted in support of pesticide product registrations. This activity was jointly funded by USAID and USDA EMP funds and included participation from 19 Latin American countries.

Zebra Chip and Trips Palmi Training**August 2010**

USDA/FAS sent partners from the Agricultural Research Service (USDA/ARS) and the University of Florida, to provide technical information on preventing Trips Palmi and Zebra Chip Plant Pests in crops to a regional workshop hosted by OIRSA. OIRSA, a regional plant and animal protection organization, sponsored the workshops to increase the strength of pest prevention in the CAFTA/DR region. Program participants, representing all Central American countries including Panama, Dominican Republic and Belize, were funded by OIRSA, while USDA provided expenses for the experts.

Residue Laboratory**December 2009**

U.S. Department of Agriculture's (USDA) Foreign Agriculture Service (FAS) led an evaluation of the Pesticide Residue Laboratory, Ministry of Agriculture (SEA) Laboratories in Costa Rica. Residue experts from Food and Drug Administration (FDA) and Environmental Protection Agency (EPA) participated in the evaluation. This activity is part of a long-term capacity building program aimed to strengthen the Central American Free Trade Agreement-Dominican Republic (CAFTA-DR) national laboratories in operational and testing methods to meet U.S. and international standards. Proficiency in these laboratories is vital to maintaining a functional food safety system, and ensures the application of internationally-recognized analytical methods and tests.

Pesticide Registration Workshop**December 2009**

U.S. Department of Agriculture's (USDA) Foreign Agriculture Service (FAS) led a Pesticide Registration Workshop, Ministry of Agriculture (SEA) Laboratories in Costa Rica. Residue experts from Food and Drug Administration (FDA) and Environmental Protection Agency (EPA) participated in the workshop. The purpose of this workshop was to provide technical assistance to government officials that are responsible for the registration, control and use of pesticides and provide them with standards and methods used by US agencies to carry out their work. In addition, the experts provided technical opinions on the regulations being presented by Costa Rica as part of the harmonization efforts of Central America.

Guidance on Pesticide Registrations All CAFTA-DR Countries**October 2009**

USDA/FAS collaborated with the United Nations Food and Agriculture Organization (FAO) on harmonization pesticide registration procedures for Central American countries in Panama City, Panama. Workshop topics included current regional harmonization efforts: identifying specific obstacles Central American countries face regarding harmonization, review of current registration legislation in each country, and guidance to harmonize legislation across the region. This will benefit two-way trade of agricultural products by establishing common pesticide standards within Central America, reducing the likelihood that exports violate pesticide residue standard of individual countries.

Chile Pre-clearance Study Tour**August 2009**

USDA/FAS organized a study tour of Chile's Plant Health System. Participants included Ministry of Agricultural Officials from all CAFTA-DR countries, with exception of Honduras, and key private sector individuals. The purpose of this trip was to view a successful model for plant products export to the U.S. and to allow Chilean exporters to showcase their system and share their experiences with their CAFTA-DR neighbors. This unique third country training allows CAFTA-DR participants to gain a better understanding of how plant health surveillance, inspection, quarantine and certification is conducted, the roles of each party in that process and the infrastructure required to sustain the effort. The tour included a full review of national procedures and USDA requirements at various quarantine, inspection and processing facilities in Chile. The training was coordinated by USDA/FAS and USDA/APHIS, as well as FAS/Santiago, APHIS/Santiago and SAG (Ministry of Agriculture in Chile).

Maximum Residue Level's (MRL) Specialty Crop Seminar on Pesticides**August 2009**

USDA, in coordination with the Food and Agriculture Office of the United Nations, held a regional workshop in San Jose, Costa Rica to address the harmonization of pesticide maximum residue levels (MRLs). Workshop topics included international harmonization efforts, identifying specific obstacles Central American countries face regarding MRLs, discussing how to better coordinate various efforts, and providing recommendation on how countries can better engage and benefit from Codex and other international systems.

Pesticides Residues Training***July 2009***

The EPA Office of Enforcement and Compliance Assurance trained CAFTA-DR officials in Costa Rica on good laboratory practices (GLP). Compliance with EPA's GLP standards ensures the quality and integrity of laboratory test data, which is submitted in support of pesticide product registrations. The training was conducted at the pesticide analytical laboratory of the University of Costa Rica, which is currently the only pesticide laboratory in the CAFTA-DR region accredited internationally under International Organization for Standardization (ISO), regulation 17025. FAS support for this activity is part of a long-term capacity building program aimed to strengthen CAFTA-DR national laboratories in operational and testing methods to meet U.S. and international standards.

FDA Labeling Training***July 2009***

USDA, in collaboration with U.S. Food and Drug Administration (FDA), provided training in general food labeling requirements, as well as detailed information required for specific commodities including meat, poultry, processed products and cases of fresh produce. Participants were from the private sector currently exporting or trying to export to the United States as well as technical staff from the export association (CADEXCO) managing the International Development Bank (IDB) AgroCAFTA project. USDA provided the expert; all other costs were covered by CADEXCO under the AgroCAFTA program.

Microbiological Laboratory Diagnostic Methods Training***April 2009***

USDA, in cooperation with Texas A & M University conducted a regional workshop on proper laboratory techniques for testing microbiological samples for salmonella. The training focused specifically on testing for salmonella in poultry products, vegetables and dairy products. Participation included laboratory personnel from the national laboratories of Guatemala, Costa Rica, El Salvador, Honduras, Nicaragua, and the Dominican Republic. The training provided attendees with the technical knowledge necessary to test for food borne microbiological hazards, thus providing for safer food, and facilitating trade between the Central American nations and the United States. The techniques taught include both FSIS and FDA approved methods.

Pest Diagnostic Training***March 2009***

A regional plant pest diagnostic training for laboratory personnel from all the CAFTA-DR countries plant health laboratories took place in Guatemala. The training included lectures on various fungi and viruses of export importance, hands-on laboratory detection methodology and finalizing of standard operating procedures. While the primary focus of the training was on Nematodes (a plant pest) other relevant priority plant pests and diseases were also addressed. The long-term goal of this activity is to expand agricultural trade by strengthening CAFTA-DR national laboratories in accurate operational and testing methods to meet U.S. and international standards.

All CAFTA-DR Countries***March 2009***

USDA sent a team of animal health laboratory experts to El Salvador who conducted a regional animal health laboratory training in El Salvador. This training addressed bovine serology and PCR testing on bovine diseases Brucella, Anaplasmosis Bovine Leucosis and Bluetongue. The training included participation of all CAFTA-DR countries except for Nicaragua, who could not participate. This is part of the ongoing process to improve the Animal Health Laboratories of the CAFTA-DR countries to meet international standards and achieve certification.

Central America Laboratory Training on Pesticide Residues***February 2009***

USDA conducted a workshop in San Jose, Costa Rica for national laboratories' technicians. The purpose was to improve the use of testing methodologies for detecting pesticide residues in foods. The objective of this training is to implement international standards for quality control and assurance, thereby supporting a functional food safety system.

Pesticide Regulatory Guidance to Costa Rica**December 2008**

USDA, in collaboration with the U.S. Environmental Protection Agency (EPA), provided guidance to pesticide regulatory officials in Costa Rica. The discussions focused on U.S. import requirements, U.S. monitoring and enforcement practices, and international harmonization efforts. Cost Rica is presently reviewing its pesticide laws and this will help them harmonize with international standards.

Training on new Food Safety Inspection Service-mandated E.Coli testing methods**December 2008**

USDA provided training to the Costa Rica diagnostic laboratory on new Food Safety Inspection Service (FSIS)-mandated E.Coli testing procedures. Dr. Javier Castro, a microbiologist from Texas A&M University, conducted the training, which included proper equipment, procedures, and requirements for a new method to test for E.Coli in meat. Implementation of the new FSIS testing procedures is required in order to maintain equivalency status for trade in meat products with the United States. The method also included that a sample strain was needed as part of the method and Dr. Castro was able to verify with a specific kit that said strain was correct.

Regional Peppers and Tomatoes Quarantine Pest Diagnostics**September 2008**

Officials participated in a regional workshop held in Honduras for all the CAFTA-DR countries on the identification and diagnosis of the ten quarantine pests that are part of the final rule for exports of peppers and tomatoes from the CAFTA-DR countries. Participants represented both government and private sector. The course took place at the Honduran Foundation for Agricultural Investigation (FHIA) so that the experience stays in the region with local experts.

Laboratory Assessment of Progress and Planning**August 2008**

USDA/FAS led an evaluation of the National Laboratories in Nicaragua, Honduras, El Salvador, Guatemala, the Dominican Republic, Costa Rica, and Panama. The labs evaluated were in the areas of Animal Health, Pesticide Residue, and Microbiology. In addition to the evaluation, the team convened in Costa Rica to decide upon upcoming laboratory trainings for each country. Experts from the Food Safety Inspection Service, the Environmental Protection Agency and Food and Drug Administration participated in the evaluation of the labs and in the final meeting in Costa Rica. This activity is part of a long-term capacity building program aimed to strengthen the CAFTA-DR and Panama national laboratories in operational and testing methods to meet U.S. and international standards. Proficiency in these laboratories is vital to maintaining a functional food safety system, and ensures the application of internationally-recognized analytical methods and tests.

Microbiology Laboratory Training**July 2008**

USDA/FAS led a training in Guatemala City on quality control in food microbiological analysis and protocol for validation of microbiological methods; technicians of the national testing laboratories of Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Nicaragua, and Panama attended. This training is part of a long-term capacity building program aimed to strengthen the CAFTA-DR and Panama national laboratories in operational and testing methods to meet U.S. and international standards. Proficiency in food microbiological methods is vital in maintaining a functional food safety system, and ensures the application of internationally-recognized analytical methods and tests.

Laboratory Training Animal Health**June 2008**

A team of experts was sent to Nicaragua to provide a regional training on animal health diagnostics. Laboratory technicians from all the CAFTA-DR countries that carry out this laboratory work participated. This training is part of a long-term capacity building program aimed to strengthen CAFTA-DR and national laboratories in operational and testing methods to meet U.S. and international standards. Proficiency in disease diagnostics is vital in maintaining a functional animal health system, and ensures the application of internationally-recognized analytical methods and tests.

The first two days were spent on proficiency testing and lectures on the test procedures. In addition, a one-on-one session was devoted to each group to explain and discuss their proficiency results so participants have a thorough understanding of the test and its interpretation.

The last two days were spent on Poultry diagnosis covering the four main poultry diseases (Avian Influenza, New Castle disease, Infectious Laryngotracheitis, Infectious Bronchitis), Lectures on Biosecurity and Biosafety in the laboratories, samples collection and transport, preparation of reagents for use in the diagnostic testing, and the importance of serology in poultry diagnosis.

Laboratory Training Pesticide Residue

June 2008

A team of experts from EPA was sent to El Salvador to provide a regional training on pesticides residue diagnostics and the formulation of testing protocols. This training is part of a long-term capacity building program aimed to strengthen CAFTA-DR and national laboratories in operational and testing methods to meet U.S. and international standards. Proficiency in pesticide residue analyses is vital in maintaining a functional food safety system, and ensures the application of internationally-recognized analytical methods and tests.

FSIS Meat Inspection

May 2008

This course was designed by FSIS to help build capacity on meat inspection at the slaughterhouse. Three participants from Guatemala attended, two from the Ministry of Agriculture and one from the Ministry of Health. The course included site visits/assessments, classroom, and practical in-plant training on: FSIS regulatory standards for meat inspection; pathogen reduction (PR)/HACCP systems; SSOP's; Good Manufacturing Practices (GMP's) for meat products; and good safety regulatory enforcement.

Swine Surveillance System

May 2008

A regional course was provided to all the CAFTA-DR countries in Guatemala. This was set up as a train-the-trainer approach and included participation from all the Ministries of Agriculture from the CAFTA-DR countries as well as presentations from APHIS, the United Nations Food and Agriculture Organization (FAO), and OIRSA. The purpose was to review all the countries' Classic Swine Fever programs and train technicians on proven practices for the eradication of the disease. The trained personnel will now continue the training to both government officials and private sector personnel in each of the CAFTA-DR countries.

Regional Pest Risk Assessment Training

April 2008

USDA/FAS hosted a Pest-Risk Assessment workshop in San Pedro Sula, Honduras. Participants to the workshop included regulatory officials from all the CAFTA-DR countries. FAS worked closely with APHIS officials to develop this training, and APHIS specialists conducted the workshop. The purpose was to provide the necessary steps needed to get a new fresh product through the US regulatory system. The workshop also included a site visit to laboratories in the Honduran Agricultural Research Foundation (FHIA). The workshop builds institutional strengthening at the Ministries of Agriculture to improve their procedures and increase the speed in which new fresh plant products can achieve market access to the US. In addition, an outline of the new Q56 regulation was provided. This is the new APHIS regulation that went into effect in May of 2008 that allows for an expedited PRA procedure and allows countries to achieve market access at an accelerate rate.

Laboratory Training for Food Microbiology

March 2008

A team of experts traveled to El Salvador to provide training in food microbiology and trained laboratory technicians from CAFTA-DR countries on advanced analytical methods. The goal of this on-going program is to ensure that commodities entering U.S. markets from CAFTA-DR countries comply with U.S. food safety regulations and also ensure that testing methods used by CAFTA-DR countries on U.S. imports are conducted accurately, using standard international procedures. USAID and the USDA Emerging Markets Program (EMP) in support of CAFTA-DR provided funding for this program.

Regional Animal Health and Pesticide Residues Laboratory Training ***March 2008***

A team of experts traveled to Honduras to provide training in the areas of animal health and pesticide residues and trained laboratory technicians from CAFTA-DR countries on advanced analytical methods. The goal of this on-going program is to ensure that commodities entering the United States from CAFTA-DR countries comply with U.S. food safety and animal disease regulations, and also ensure that testing methods used by CAFTA-DR countries on U.S. imports are conducted accurately, using standard international procedures. Three protocols for Real Time polymerase chain reaction (PCR) were established during this training that included Newcastle, Salmonella and Avian Influenza.

Pesticide Regulatory Guidance ***March 2008***

The Foreign Agricultural Service (FAS) in collaboration with the U.S. Environmental Protection Agency (EPA) sent a pesticide expert from EPA to Costa Rican to provide technical assistance to officials on pesticide regulatory policies. Meetings were held with Ministry of Agriculture officials involved with pesticide registrations. Focus of discussions was on the registration process of "generic" pesticides and on approaches under CAFTA-DR to implement a sound regional registration system.

Central America Regional Meeting on Pesticide Tolerance and Registration ***February 2008***

FAS, in collaboration with the U.S. Environmental Protection Agency (EPA), sent a pesticide expert from EPA to the a regional customs union meeting on Pesticide Registration and Tolerance standards for the Central American Region held in El Salvador. The purpose of this technical assistance was to help the Centrals harmonize their regulations on Residue Levels and Registration Standards. In addition, EPA met with government officials and discussed the current situation of pesticide registration and levels in Central America and U.S. requirements for exports.

Plant Pest Diagnostic Training ***January 2008***

USDA and the University of Florida provided technical training to national plant laboratory personnel from the Central American and Dominican Free Trade Agreement (CAFTA-DR) countries. The training was held in the Dominican Republic and focused on fundamental practices such as quality management systems (QMS), standard operating procedures and remote diagnostics. It also included a site visit to the Dominican Institute for Agricultural and Forest Research (IDIAF). The long-term goal of this activity is to expand agricultural trade by strengthening CAFTA-DR national laboratories in operational and testing methods to meet U.S. and international standards. Ten diagnostic protocols were written during this training that are now being applied regionally.

Laboratory Quality Management Systems ***December 2007***

Training was provided to the Quality Control, Animal Health, and Microbiology personnel of all the CAFTA-DR countries on setting up a quality control system for their labs. The course included certification process of ISO 17025 and the documentation needed to meet ISO standards. The course also included one day at the laboratory to review Costa Rica's experience in implementing the system. The last day training covered FSIS and FDA regulations for Salmonella testing and how to properly carry out the test. Costa Rica is certified on this procedure and a visit was also conducted at their laboratory to review the procedure in a laboratory.

Laboratory Managers Training ***September 2007***

This was the second of the trainings provided to the Laboratory Managers of all the CAFTA-DR countries. This training emphasized quality control, laboratory information management systems (LIMS) and review of the SSOP's that the groups had been working on. The participants included managers of animal health, plant health and food safety laboratories of both the Ministries of Agriculture and Health.

Risk Assessment Course ***August 2007***

A two-week course was provided in conjunction with JIFSAN and FDA on risk assessment for processed foods. This was a regional course that included all aspects of risk assessment as well as statistical exercises on establishing risk levels. FDA also reviewed the regulations that apply to food and allowable levels of residue and testing methods.

US Regulatory System**All CAFTA-DR Countries****August 2007**

This was a regional course on how the US regulatory system works. It was designed to explain the different agencies that oversee the US regulatory system. The seminar included presentations by FDA, APHIS (both plant health and animal health), FSIS and Customs. This course provided the directors of animal health, plant health, and food safety from all the CAFTA-DR countries the opportunity to meet their counterparts in the U.S. government and begin to resolve issues directly. This activity was funded with USDA's own funds

Poultry Surveillance Systems Workshop**June 2007**

USDA/FAS, in coordination with APHIS and FSIS, conducted a regional workshop in Managua on poultry surveillance systems. The overall goal of this workshop was to provide regulatory and industry officials in the CAFTA-DR countries with the knowledge to be able to begin to build poultry surveillance systems that meet OIE and APHIS standards. Building these animal health systems will not only increase trade with Central America but will also, and perhaps more importantly, especially in the short-term, help to enhance agricultural bio-security in Central America and the United States.

Ports & Containers Inspection**June 2007**

USDA/FAS, in cooperation with APHIS, conducted a regional training on regulations for the importation of plants and plant products to the U.S. and inspection techniques in order to reduce the number of shipments from CAFTA-DR countries detained at U.S. ports of entry for phytosanitary infractions. This activity was carried out in Honduras.

FSIS Meat Inspection Training in Puerto Rico**May 2007**

USDA/FAS supported a regional course that detailed a comprehensive approach to meat inspection techniques and regulations. The course, organized by FSIS on a yearly basis, is equivalent to the course required for U.S. inspectors. All countries with exception of Dominican Republic attended.

Phytosanitary Principles**May 2007**

USDA/FAS, in conjunction with APHIS, organized a regional course on phytosanitary principles that included training on pest risk assessment, Q37 and Q56. In addition, the CAFTA-DR partners were trained on how the U.S. conducts its surveillance system and port inspection procedures as well as pest database management. A total of eleven APHIS representatives conducted this intense training.

Good Laboratory Practices**April 2007**

A course was designed for the managers of each evaluated laboratory. The course took place in Nicaragua and included participants from all CAFTA-DR countries. The four-day course covered operational management aspects of laboratories, including QA/QC, GLP, Development of SOP's, Laboratory Safety, Laboratory Information Management Systems (LIMS), and Distance Diagnostics. This training was created based on earlier laboratory evaluations coordinated through Texas A&M University, national laboratories for animal health, plant health, microbiology, and residue testing. In addition to the classroom-type courses, there were break-out sessions where each member addressed specific problems in their areas.

Peppers and Tomatoes Pest Risk Workshop**November 2006**

USDA/FAS, in cooperation with USDA/APHIS, provided a regional training on compliance regulations for mitigating measures to export peppers and tomatoes to the United States. This regulation was established as the final rule for admissibility as part of the Pest Risk Assessment

FDA Advisor on Harmonization of Regulations**October 2006**

On three different occasions during between October and December 2006, an FDA expert was sent to the regional meetings held in Central America to help them harmonize regulations. These meetings are part of the customs union process that the Centrals are working on to harmonize all SPS regulations. During these three meetings the FDA expert helped them design standards for approved ingredients, microbiological residue levels and the accepted testing methods for these.

Biotechnology Course**September 2006**

This three-week course in Washington D.C. was organized for the members of the National Committee for Modified Organisms. This workshop detailed international standards for Genetically Modified Organisms (GMO's) and the basic scientific methodology for identification and classification of GMO's.

Avian Pathology Workshop**September 2006**

This regional workshop concentrated on proper avian health surveillance systems and diagnostics. Emphasis was put on the top four diseases (Newcastle, Avian Influenza, Laryngotracheitis, and Infectious Bursal Disease) reportable under the OIE for exportation of poultry and poultry products.

Tuberculosis and Brucellosis Technical Assistance**May 2006**

USDA/FAS organized a regional workshop on developing an animal health surveillance system and proper diagnostics of tuberculosis and brucellosis. Course was held in Guatemala. The presenters were all from APHIS and included world-renowned experts. All CAFTA-DR countries

FSIS Meat Inspection Training in Puerto Rico**May 2006**

USDA/FAS supported a regional course that detailed a comprehensive approach to meat inspection techniques and regulations. The course, organized by FSIS on a yearly basis, is equivalent to the course required for U.S. inspectors. All Countries participated except for Dominican Republic.

Port of Miami Visit Costa Rica**March 2006**

USDA/FAS, in coordination with APHIS, organized a visit for plant health inspectors from the Miami Port of Entry to review APHIS inspection procedures for acceptance of plant and plant products in the United States. This cooperative experience allowed for a hands-on view of equivalent procedures to U.S. methods for detecting pests.

World Trade Organization (WTO) SPS Agreement**December 2005**

USDA and WTO personnel provided a regional training on the details of the SPS agreement as well as the rights and obligations of each country.

Overview of U.S. Regulations Workshop**December 2004**

In cooperation with FDA, APHIS, FSIS, and U.S. Customs, FAS organized a workshop to cover U.S. agricultural trade regulations.

Cochran Fellowship Program**FY2005 – FY2010**

USDA/FAS has sponsored 57 Cochran fellows from Costa Rica since fiscal year 2005. The fellows participated in the following trainings: HACCP Practices and Policies, HACCP Plan Validation and Verification, FSIS Meat and Poultry Inspection I & II, Food Retail, Bakery Ingredients Technology, Swine Production and Management, Culinary Arts, Biosafety, Food Safety, Pasta Raw Material and Processing Technology, Table Grape Marketing and Handling, Thermal Processing, Chef Training, Veterinary Epidemiology, Import and Export Procedures, and Dairy Inspection.

Dominican Republic SPS Capacity Building Report

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Summary

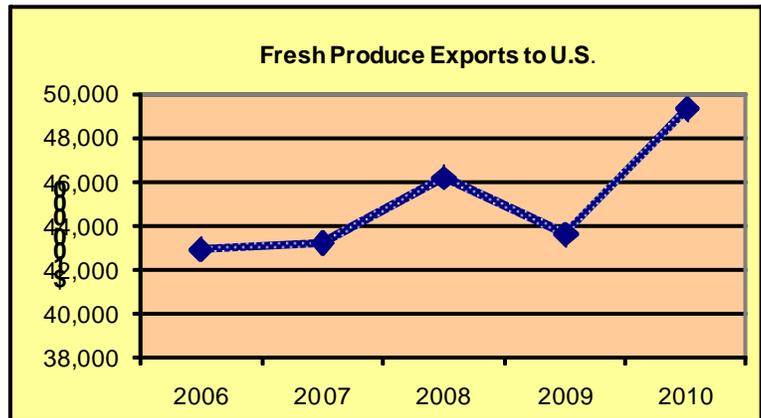
The US Department of Agriculture’s (USDA) Foreign Agricultural Service (FAS), with funding from the US Agency for International Development (USAID), has worked closely with the government of the Dominican Republic since the signing of CAFTA-DR in 2005 to provide prioritized technical assistance for both the public sector and private industry. These activities have been part of Sanitary Phytosanitary (SPS) trade capacity building efforts in the DR which are currently in progress to improve their agricultural trade in the international marketplace (activity details in Appendix A). To date 711 people from both the public and private sector have been trained and over 89 firms have benefited from technical assistance since 2006.

The Program has contributed to significant impact, including:

- The Dominican Republic’s Ministry of Health has signed an agreement with a local laboratory to serve as the reference laboratory for all residues testing for meats as part of the equivalence process. This is an important step toward meat equivalency with the United States.

- With help of technical assistance in food safety regulations, the new meat inspection and slaughterhouse operations law was written by the Ministry of Health and became law in May 2011.

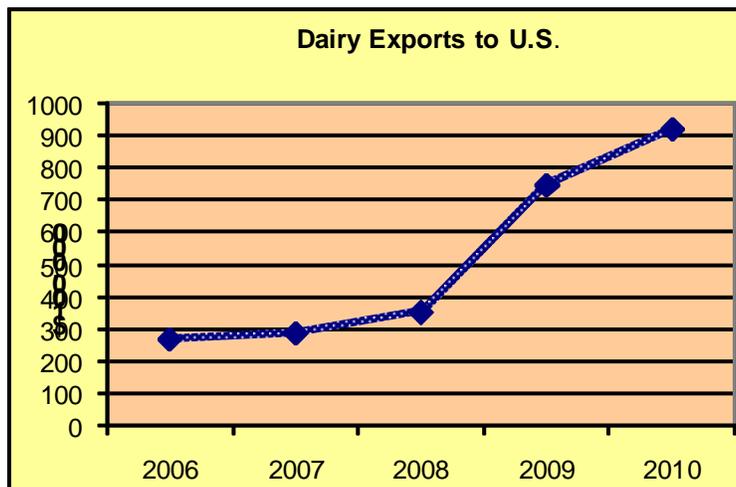
- With the help of technical assistance in areas such as container inspection, maximum residue levels training, and laboratory diagnostics, detentions of fresh produce imported to the United States have decreased from over 4000 in 2007 to fewer than 500 in 2010. Due to the lowering of the detentions levels, U.S. imports of fresh produce from CAFTA-DR have grown from \$42.9 million in 2006 to \$49.3 million in 2010.



- Technical assistance focusing on U.S. labeling requirements contributed to a decrease in the number of refusals due to labeling of agricultural exports from 170 in 2005 to 0 in 2009.

- The Dominican Republic has joined with other CAFTA-DR countries to form a working group to harmonize laboratory procedures and standardize testing methods. With help from US experts, over 15 diagnostic protocols have been harmonized that meet internationally accepted standards to date.

- Capacity building directed at dairy processing has contributed to an increase in U.S. imports of dairy products from the Dominican Republic. U.S. imports have increased from \$269,000 in 2006 to \$920,000 in 2010. For the first 4 months in FY 2011 exports total \$434,000 up 54% from 2010.



Institutions that received Targeted Capacity Building Activities

1. Ministry of Health Meat Inspection Unit
2. Ministry of Agriculture Animal Health Division
3. Ministry of Agriculture Plant Health Division
4. Ministry of Agriculture Food Safety Division
5. LAVECEN Laboratory
6. Sierra Prieta Slaughterhouse
7. Commercial Agricola Slaughterhouse
8. Agropecuaria Santo Domingo Slaughterhouse
9. IBII Laboratory
10. Plant Health Laboratory
11. La Romana Slaughterhouse
12. Grupo Alonso Slaughterhouse
13. Escuela Superior de Agricultura Laboratory
14. Greenhouse Producers Association of La Vega
15. Exportadora Campo Verde
16. Invernaderos de Jarabacoa
17. Horticola de Constanza

Laws Passed with US Technical Assistance

1. Law Granting the US Meat System Equivalence 2007
2. Law creating official inspection on slaughterhouses 2008
3. Law on Meat Inspection and Slaughterhouse operations 2011

Moving Forward

In the summer of 2010, Dominican officials completed a survey indicating their opinions regarding the level of completion of primary aspects of the SPS systems, (detailed data in Appendix B). USDA experts used the data collected from this survey to evaluate specific gaps in each system and develop recommendations for moving forward. Below are those recommendations.

Food Safety

- **Implement meat inspection regulations** that encompass regulations on official inspection, Hazard Analysis and Critical Control Point (HACCP), Standard Operating Procedures (SOP) and a National Residue Program. The GoDR, has passed a new law that includes all of these concepts and now needs to implement it.
- **Fill and send the Self Assessment Questionnaire to FSIS.** The GODA with help from U.S. experts filled out this questionnaire that was only waiting for the passing of the new meat law. Now that the law has been passed, the questionnaire must be sent to FSIS to continue the equivalence process.

- **Perform an overall review/update the current pesticide regulations.**
- **Strengthen/improve the enforcement/compliance programs for pesticide post-registration activities** such as; Good Agricultural Practices, safe-use, container disposal, etc.
- **Implement and monitor pasteurization in dairy processing plants** through Government of DR oversight to meet US regulations.
- **Strengthen ability to review and/or interpret human health and environmental fate/ecological risk assessments for pesticide registration applications.**
- **Develop a national food safety (pesticide MRL) program** that includes a national pesticide MRL monitoring program to improve government oversight.

Animal Health

- **Allocate sufficient funds to maintain adequate staffing and resources.** A viable animal health system requires a quality surveillance system of animal diseases. Adequate funds and well-trained staff ensure the quality of an animal health and surveillance system
- **Establish a national animal identification program** within the public sector. This will help ensure viable animal health control and eradication programs to function properly and ensure traceability of diseased animals.
- **Establish a National Indemnity Program.** This program would guarantee funding to provide incentives for people to report suspected cases of disease and to pay producers for animals taken by the State. The program must have the capabilities to address a Foreign Animal Disease Outbreak for a minimum of two weeks from specific earmarked funds for the national emergency.
- **Implement a National Veterinary Accreditation Program.** A program is necessary to accredit an adequate number of veterinarians to provide day-to-day services to livestock farmers and professionals capable of responding to immediate national outbreaks of disease.

Laboratories

- **Significantly improve and support LAVECEN laboratories** (all laboratory phases) starting with following up with talks with OIRSA for laboratory administration and support (El Salvador and Honduras models), implement the QA/QC laboratory program which was recently developed, expand the number of pesticide residues (analyses) that can be screened for in food and formulated pesticide samples.

Plant Health

- **Strengthen the institutional capabilities of the Ministry of Agriculture to maintain a working plant health surveillance system that includes a quarantine program, pest risk assessment division, mapping pest prevalence, and certified plant health laboratory facilities.**
- **Allocate adequate funds and hire well-trained staff for all laboratories.** The plant health laboratory currently has inadequate physical infrastructure including a lack of telephones and internet.

**Dominican Republic
SPS Capacity Building Activities
2005-2011**

Country	Participants	Public Sector	Private Sector	Female	Firms
Rep. Dom.	711	506	205	245	89

Food Safety Directors Meeting

April 2011

A 3-day regional meeting was conducted in El Salvador with the participation of Food Safety Directors from all Central America Countries to review the recently passed Central American Microbiological Standards for Food. Participants included Food Directors from both Ministry of Health and Ministry of Agriculture. The purpose of this meeting was to reevaluate some standards that were set by the Ministry of Health that were not consistent with internationally accepted standards. In addition, the Ministries of Agriculture were not included in the creation of this new regulation and this meeting was to provide both working groups the opportunity to work together on the revised legislation. This activity was organized by OIRSA though funds provided by USDA for continued work on harmonizing Central American food safety standards. OIRSA also contribute its own funds to cover venue, translation, transportation and coffee breaks.

Evaluation of National Pesticide Laboratories in Dominican

March 2011

FAS sent a technical expert from EPA to Santo Domingo, Dominica Republic to conduct an exit evaluation of the National Pesticide laboratory's current status, evaluate progress made since the inception of the CAFTA-DR project, and identify remaining technical assistance gaps as well as progress achieved after 4 years of technical assistance. This laboratory had recently been given to OIRSA to manage it and many changes had occurred.

Pesticide Residue Laboratory Training

October 2010

USDA organized a pesticide residue laboratory training for Ministry of Agriculture technicians in Santo Domingo, Dominican Republic. Residue experts from the U.S. Food and Drug Administration (FDA) and the Environmental Protection Agency (EPA) conducted the training on residue analysis and laboratory accreditation. This activity is part of a long-term capacity building program aimed to strengthen the Central American national laboratories in operational and testing methods to meet U.S. and international standards. Proficiency in these laboratories is vital to maintaining a functional food safety system, and ensures the application of internationally recognized analytical methods and tests.

Technical Assistance for Trips Palmi

September 2010

FAS provided an Agricultural Research Service (ARS) expert to Honduras and Dominican Republic to help them identify ways to eradicate the pest Trips Palmi. This pest is starting to show up more often in fresh produce containers exported from CAFTA-DR countries. This is a quarantine pest; no product that is found to have trips palmi can enter the US. This is a follow-up from the training provided in Honduras in July and carried out in collaboration with OIRSA. The trip also included assistance to Panama.

Residue Laboratory Training in Dominican Republic

August 2010

USDA/FAS led a pesticide residue laboratory training for Ministry of Agriculture technicians in Santo Domingo. Residue experts from the FDA and EPA conducted the training on residue analysis and laboratory accreditation. This activity is part of a long-term capacity building program aimed to strengthen the Central American national laboratories in operational and testing methods to meet U.S. and international standards. Proficiency in these laboratories is vital to maintaining a functional food safety system, and ensures the application of internationally recognized analytical methods and tests.

***Regional Good Laboratory Practices for
Pesticide Residue Laboratories***

August 2010

USDA/FAS, in collaboration with the Office of Enforcement and Compliance Assurance, Environmental Protection Agency (EPA), and Rutgers University's Interregional Research Project Number 4 (IR-4), trained pesticide technicians in good laboratory practices (GLP) in San Jose, Costa Rica. The training was conducted in cooperation with the University of Costa Rica. Compliance with EPA's GLP standards ensures the quality and integrity of laboratory test data which is submitted in support of pesticide product registrations. This activity was jointly funded by USAID and USDA EMP funds and included participation from 19 Latin American countries, including the Dominican Republic.

***Pesticide Trade Standard Compliance in Export Crops
Grown in the Dominican Republic***

July 2010

FAS and EPA pesticide regulatory experts conducted field visits in the Dominican Republic in order to reduce the incidence of illegal pesticide residues in food exports to the United States. These visits included meetings with the offices of USDA, USAID, USAID/RED (Rural Economic Diversification Project), the Dominican Republic's Ministry of Agriculture (Pesticide Registration Unit), AFIPA and ANIMPA (pesticide industry trade associations), a group of oriental vegetable farmers in La Vega ("Cluster Hortofructicola de La Vega, Inc."), a vegetable export/packing house in La Vega ("Exportadora Campo Verde"), a small retail pesticide store in La Vega, a group of greenhouse pepper growers/exporters in Jarabacoa ("Cluster de Invernaderos de Jarabacoa"), a group of farmers in Constanza that principally produce for the domestic/local market ("Cluster Horticola de Constanza"), and a local/supermarket potato packing plant in Constanza. Compliance with international pesticide residue standards will reduce detentions of Dominican exports, improve product quality, and promote farm productivity, thereby increasing the quantity and quality of food available to meet local and international market needs.

Microbiology Laboratory Training on E coli 0157

May 2010

FAS provided training in microbiology laboratory detection techniques to officials in the Dominican Republic. FAS in collaboration with the FDA and Texas A & M University provided technical training on laboratory methods for detecting E-coli and Salmonella bacteria in meats and fresh produce. Laboratory experts from FDA and the National Autonomous University of Hidalgo Mexico conducted the trainings. Laboratory specialists from the Institute for Innovation in Biotechnology and Industry participated. This training is a FSIS prerequisite for any country seeking to export meat and meat products to the United States as part of Equivalence.

HACCP, Anti-Mortem and Post-Mortem Training

May 2010

A retired veterinary inspector from FSIS and an expert in HACCP from the Inter-American Institute for Cooperation on Agriculture (IICA) provided training on HACCP and post-mortem and anti-mortem techniques for government inspectors and meat producers. The retired FSIS veterinary inspector also conducted pre-audits of various beef plants that are seeking equivalence with the United States. This training is part of the ongoing USDA-led program to assist the Dominican Republic in achieving equivalency with the United States for processed meat products. This is a requirement by the USDA/FSIS for countries that wish to export beef and meat products to the United States.

Plant Health Laboratory Training in the Dominican Republic

February 2010

USDA provided an expanded plant health diagnostic training in the Dominican Republic. A University of Florida, Plant Pathology Department specialist conducted lectures and facilitated hands-on laboratory detection methodology to laboratory personnel for various priority plant pests and diseases of export importance. This hands-on course included diagnostic methods for bacteria, viruses and nematodes. In order to expand networking opportunities within the region, the regional coordinator of the Integrated Pest Management Collaborative Research Support Program (IPM CRSP) from Guatemala conducted the nematode portion of this training. The long-term goal is to expand agricultural trade by strengthening CAFTA-DR national laboratories in operational and testing methods to meet U.S. and international standards.

Dominican Republic Animal Health System Pre-Audit***February 2010***

USDA provided guidance to the Dominican Republic on animal health system development. The animal health systems expert reviewed previous efforts to upgrade the country's animal health surveillance and quarantine system and met with officials in the Ministry of Agriculture's Veterinary Service branch to discuss actions needed to achieve equivalence with the United States. The ultimate objective of equivalence is to be able to export Dominican meat and poultry.

Pre-Audit of Beef Plants and Technical Assistance on FSIS Standards and Regulations for Meat Equivalence***November 2009***

USDA/FAS conducted pre-audits of various meat plants in the Dominican Republic that are seeking equivalence. The activity evaluated plants, confirmed that suggested changes and updates had taken place, and confirmed that the standards and regulations set forth by FSIS were met. In addition to the pre-audits, the expert provided technical assistance with writing new meat inspection regulations. With this final review of the regulations, the Dominican Republic has completed this process. The regulations are expected to become law in early 2010 and will allow the Dominican Republic to move forward in the equivalence process.

Pesticide Regulatory Guidance***November 2009***

USDA/FAS, in collaboration with the EPA, provided guidance to pesticide regulatory officials, the pesticide industry, and agricultural exporters about U.S. and international pesticide residue policies. The focus of the discussions was on U.S. import requirements, U.S. monitoring and enforcement practices, and international harmonization efforts. The Dominican Republic has had a significant problem with detentions due to high levels of pesticide residue on fresh produce. Prior to 2008, they averaged over 4000 containers detained per year. In 2008 the number dropped considerably to less than 500 containers, but is still considered too high. This training aims to lower the amount being detained and help new exporters avoid detention. This seminar was organized in conjunction with the USAID/RED project in the Dominican Republic to create

Regional Chile Pre-clearance Study Tour***August 2009***

USDA/FAS organized a study tour of Chile's Plant Health System. Participants included Ministry of Agricultural Officials from all CAFTA-DR countries, with exception of Honduras, and key private sector individuals. The purpose of this trip was to view a successful model for plant products export to the U.S. and to allow Chilean exporters to showcase their system and share their experiences with their CAFTA-DR neighbors. This unique third country training allows CAFTA-DR participants to gain a better understanding of how plant health surveillance, inspection, quarantine and certification is conducted, the roles of each party in that process and the infrastructure required to sustain the effort. The tour included a full review of national procedures and USDA requirements at various quarantine, inspection and processing facilities in Chile. The training was coordinated by USDA/FAS and USDA/APHIS, as well as FAS/Santiago, APHIS/Santiago and SAG (Ministry of Agriculture in Chile).

Maximum Residue Level's (MRL)***August 2009******Specialty Crop Seminar on Pesticides***

USDA, in coordination with the Food and Agriculture Office of the United Nations, held a regional workshop in San Jose, Costa Rica to address the harmonization of pesticide maximum residue levels (MRLs). Workshop topics included international harmonization efforts, identifying specific obstacles Central American countries face regarding MRLs, discussing how to better coordinate various efforts, and providing recommendation on how countries can better engage and benefit from Codex and other international systems.

Review of Classical Swine Fever Program**August 2009**

USDA provided a Classic Swine Fever (CSF) workshop in Dominican Republic. The purpose of this course was to train regulatory officials on surveillance measures and diagnostics of classical swine fever. This workshop was a planned follow up exercise of the larger regional "Train the Trainer" workshop held in May 2009 in Guatemala; the regional training served as the development point of individual country training programs in Central America on CSF. Ministry of Agriculture officials provided the training from Dominican that attended the May course and OIRSA officials involved in the eradication effort of CSF. The collaborating effort with OIRSA is to create local experts in these areas and increase the sustainability of the program. In addition, producer groups working under the USAID RED program attended the activity.

FDA Food Labeling Regulations Requirements**May 2009**

FAS, in collaboration with FDA, provided training on food labeling regulations. The course focused on the U.S. Food and Drug Administration's (FDA) general labeling requirements, and detailed information required for specific commodities including meat, poultry, processed products and cases of fresh produce. Participants included current and aspiring exporters of these products and local government representatives. A total of 88 participants attended the three-day course. The first two days focused on regulations while the third day provided hands-on training as participants brought in actual labels to examine and discussed various issues.

Good Agricultural Practices Training in Dominican Republic**April 2009**

USDA trained roughly 80 fruit and vegetable producers and processors from the private and public sectors on good agricultural practices (GAPs). Dominican food safety officials requested assistance to address recent pathogen problems associated with exports. In response to the request, USDA worked with the Joint Institute for Food Safety and Applied Nutrition (JIFSAN), a Food and Drug Administration (FDA) partnership with the University of Maryland, to provide a hands-on training workshop in GAP's. The training provided the Dominican Republic with an adaptable framework of pest practices currently available to reduce microbial food safety risks.

Regional Pest Diagnostic Training**March 2009**

A regional plant pest diagnostic training for laboratory personnel from all the CAFTA-DR countries plant health laboratories took place in Guatemala. The training included lectures on various fungi and viruses of export importance, hands-on laboratory detection methodology and finalizing of standard operating procedures. While the primary focus of the training was on Nematodes (a plant pest) other relevant priority plant pests and diseases were also addressed. The long-term goal of this activity is to expand agricultural trade by strengthening CAFTA-DR national laboratories in accurate operational and testing methods to meet U.S. and international standards.

Regional Bovine Laboratory Training in El Salvador**March 2009**

USDA sent a team of animal health laboratory experts to El Salvador who conducted a regional animal health laboratory training in El Salvador. This training addressed bovine serology and PCR testing on bovine diseases Brucella, Anaplasmosis Bovine Leucosis and Bluetongue. The training included participation of all CAFTA-DR countries except for Nicaragua, who could not participate. This is part of the ongoing process to improve the Animal Health Laboratories of the CAFTA-DR countries to meet international standards and achieve certification.

Tariff Rate Quotas Training**December 2008**

USDA/FAS provided TRQ administration training via Teleconference to 18 government representatives of the DR to help them implement DR-CAFTA quotas. This activity was funded by FAS' Emerging Markets Program.

Laboratory Evaluation**November 2008**

USDA led an evaluation of the Pesticide Residue Laboratory, Ministry of Agriculture (SEA) Laboratories in the Dominican Republic. Residue experts from the Environmental Protection Agency and Texas A&M University participated in the evaluation. This activity is part of a long-term capacity building program designed to strengthen the CAFTA-DR national laboratories in operational and testing methods to meet U.S. and international standards. Proficiency in these laboratories is vital to maintaining a functional food safety system, and ensures the application of internationally-recognized analytical methods and tests. The experts found many deficiencies and prepared a work plan to address them.

Regional Peppers and Tomatoes Quarantine Pest Diagnostics**September 2008**

Dominican officials participated in a regional workshop held in Honduras for all the CAFTA-DR countries on the identification and diagnosis of the ten quarantine pests that are part of the final rule for exports of peppers and tomatoes from the CAFTA-DR countries. Participants represented both government and private sector. The course took place at the Honduran Foundation for Agricultural Investigation (FHIA) so that the experience stays in the region with local experts.

Laboratory Assessment of Progress and Planning**August 2008**

USDA/FAS led an evaluation of the National Laboratories in Nicaragua, Honduras, El Salvador, Guatemala, the Dominican Republic, Costa Rica, and Panama. The labs evaluated were in the areas of Animal Health, Pesticide Residue, and Microbiology. In addition to the evaluation, the team convened in Costa Rica to decide upon upcoming laboratory trainings for each country. Experts from the Food Safety Inspection Service, the Environmental Protection Agency and Food and Drug Administration participated in the evaluation of the labs and in the final meeting in Costa Rica. This activity is part of a long-term capacity building program aimed to strengthen the CAFTA-DR and Panama national laboratories in operational and testing methods to meet U.S. and international standards. Proficiency in these laboratories is vital to maintaining a functional food safety system, and ensures the application of internationally-recognized analytical methods and tests.

Regional Microbiology Laboratory Training**July 2008**

USDA/FAS led a training in Guatemala City on quality control in food microbiological analysis and protocol for validation of microbiological methods; technicians of the national testing laboratories of Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Nicaragua, and Panama attended. This training is part of a long-term capacity building program aimed to strengthen the CAFTA-DR and Panama national laboratories in operational and testing methods to meet U.S. and international standards. Proficiency in food microbiological methods is vital in maintaining a functional food safety system, and ensures the application of internationally-recognized analytical methods and tests.

Laboratory Training Animal Health**June 2008**

A team of experts was sent to Nicaragua to provide a regional training on animal health diagnostics. Laboratory technicians from all the CAFTA-DR countries that carry out this laboratory work participated. This training is part of a long-term capacity building program aimed to strengthen CAFTA-DR and national laboratories in operational and testing methods to meet U.S. and international standards. Proficiency in disease diagnostics is vital in maintaining a functional animal health system, and ensures the application of internationally-recognized analytical methods and tests.

The first two days were spent on proficiency testing and lectures on the test procedures. In addition, a one-on-one session was devoted to each group to explain and discuss their proficiency results so participants have a thorough understanding of the test and its interpretation.

The last two days were spent on Poultry diagnosis covering the four main poultry diseases (Avian Influenza, New Castle disease, Infectious Laryngotracheitis, Infectious Bronchitis), Lectures on Biosecurity and Biosafety in the laboratories, samples collection and transport, preparation of reagents for use in the diagnostic testing, and the importance of serology in poultry diagnosis.

Regional Swine Surveillance System**May 2008**

A regional course was provided to all the CAFTA-DR countries in Guatemala. This was set up as a train-the-trainer approach and included participation from all the Ministries of Agriculture from the CAFTA-DR countries as well as presentations from APHIS, FAO, and OIRSA. The purpose was to review all the countries' Classic Swine Fever programs and train technicians on proven practices for the eradication of the disease. The trained personnel will now continue the training to both government officials and private sector personnel in each of the CAFTA-DR countries.

Good Dairy Sanitation Course**May 2008**

A course on good dairy sanitation was provided to the Nicaraguan dairy producers sector. This course was designed to help small producers improve the quality and safety of their milk. Experts from Utah State University provided training for 3 days on all aspects of milking, including a day of practice in the field. The attendants included small producers and officials from the Ministries of Health and Agriculture.

Regional Pest Risk Assessment Training**April 2008**

USDA/FAS hosted a Pest-Risk Assessment workshop in San Pedro Sula, Honduras. Participants to the workshop included regulatory officials from all the CAFTA-DR countries. FAS worked closely with the Animal and Plant Health Inspection Service (APHIS) to develop this training, and APHIS specialists conducted the workshop. The purpose was to provide the necessary steps needed to get a new fresh product through the US regulatory system. The workshop also included a site visit to laboratories in the Honduran Agricultural Research Foundation (FHIA). The workshop builds institutional strengthening at the Ministries of Agriculture to improve their procedures and increase the speed in which new fresh plant products can achieve market access to the US. In addition, an outline of the new Q56 regulation was provided. This is the new APHIS regulation that went into effect in May of 2008 that allows for an expedited PRA procedure and allows countries to achieve market access at an accelerate rate.

Laboratory Training for Food Microbiology**March 2008**

A team of experts traveled to the Dominican Republic to provide training in the areas of animal health and pesticide residues and trained laboratory technicians from CAFTA-DR countries on advanced analytical methods. The goal of this on-going program is to ensure that commodities entering U.S. markets from CAFTA-DR countries comply with U.S. food safety and animal disease regulations, and also ensure that testing methods used by CAFTA-DR countries on U.S. imports are conducted accurately, using standard international procedures. Three protocols for Real Time PCR were established during this training that included Newcastle, Salmonella and Avian Influenza.

Central America Laboratory Training on Pesticide Residues**February 2008**

USDA conducted a workshop in San Jose, Costa Rica for technicians from national laboratories in Costa Rica, Dominican Republic, El Salvador, Guatemala and Honduras. The purpose was to improve the use of testing methodologies for detecting pesticide residues in foods. The objective of this training is to implement international standards for quality control and assurance, thereby supporting a functional food safety system.

Plant Pest Diagnostic Training**January 2008**

USDA and the University of Florida provided technical training to national plant laboratory personnel from the Central American and Dominican Free Trade Agreement (CAFTA-DR) countries. The training was held in the Dominican Republic and focused on fundamental practices such as quality management systems (QMS), standard operating procedures and remote diagnostics. It also included a site visit to the Dominican Institute for Agricultural and Forest Research (IDIAF). The long-term goal of this activity is to expand agricultural trade by strengthening CAFTA-DR national laboratories in operational and testing methods to meet U.S. and international standards. Ten diagnostic protocols were written during this training that are now being applied regionally.

Laboratory Quality Systems held in Costa Rica**December 2007**

This course was provided for both Animal Health and Microbiology officials from the National Laboratories of all the DR-CAFTA countries. This was a regional course designed to help the CAFTA-DR countries develop a quality system that would meet ISO 17025 norms. It included accepted methods for preparing SOP's and proper documentation. The training also included one day in the lab on how to properly carry out a salmonella test. The FSIS approved method was taught. This course had four participants from DR.

Regional Quality Management Systems for Animal Health and Microbiology Laboratories**December 2007**

Training was provided to the Quality Control personnel as well as the Animal Health and Microbiology personnel of all the CAFTA-DR countries on setting up a quality control system for their labs. The course included certification process of ISO 17025 and the documentation needed to meet ISO standards. The course also included one day at the lab to review Costa Rica's experience in implementing the system. The last day training provided information on the FSIS and FDA regulations for Salmonella testing and how to properly carry out the test. Costa Rica is certified on this procedure and a visit was conducted at their laboratory to review the procedure in an experiential setting.

Laboratory Managers Training**September 2007**

This was the second of the trainings provided to the Laboratory Managers of all the CAFTA-DR countries. This training emphasized quality control, LIMS and review of the SSOP's that the groups had been working on. The participants included managers of animal health, plant health and food safety laboratories of both the Ministries of Agriculture and Health.

Risk Assessment Course**August 2007**

A two week course was provided in conjunction with JIFSAN and FDA on risk assessment for processed foods. This was a regional course that included all aspects of risk assessment as well as statistical exercises on establishing risk levels. FDA also reviewed the regulations that apply to food and allowable levels of residue and testing methods.

US Regulatory System**August 2007**

This was a regional course on how the US regulatory system works. It was designed to explain the different agencies that oversee the US regulatory system. Presentations were provided by FDA, APHIS (both plant health and animal health), FSIS and Customs. This course provided the directors of animal health, plant health and food safety from all the CAFTA-DR countries the opportunity to meet their counterparts in the US government and begin to resolve issues directly.

Poultry Surveillance Systems Workshop**June 2007**

USDA/FAS, in coordination with APHIS and FSIS, conducted a regional workshop in Managua on poultry surveillance systems. The overall goal of this workshop was to provide regulatory and industry officials in the CAFTA-DR countries with the knowledge to be able to begin to build poultry surveillance systems that meet OIE and APHIS standards. Building these animal health systems will not only increase trade with Central America but will also, and perhaps more importantly, especially in the short-term, help to enhance agricultural biosecurity in Central America and the United States.

Ports & Containers Inspection**June 2007**

USDA/FAS, in cooperation with APHIS, conducted a regional training on regulations for the importation of plants and plant products to the U.S. and inspection techniques in order to reduce the number of shipments from DR-CAFTA countries detained at U.S. ports of entry for phytosanitary infractions.

Laboratory Management Course**April 2007**

USDA/FAS provided a regional training course on laboratory management. This course targeted lab directors of animal health, plant health, microbiology and residue. The course included training on Good Laboratory Practices (GLP's), Laboratory Information Systems (LIMS), and other management techniques.

Avian Pathology Workshop held in Nicaragua

September 2006

This regional workshop concentrated on proper avian health surveillance systems and diagnostics. Emphasis was put on the top four diseases (Newcastle, Avian Influenza, Laryngotracheitis, and Infectious Bursal Disease) reportable under the OIE for exportation of poultry and poultry products.

Tuberculosis and Brucellosis Assistance held in Guatemala

May 2006

USDA/FAS organized a regional workshop on developing an animal health surveillance system and proper diagnostics of tuberculosis and brucellosis.

Cochran Fellowship Program

FY2005 – FY2010

USDA/FAS has sponsored 26 Cochran fellows from Dominican Republic since fiscal year 2005. The fellows participated in the following trainings: Foreign Animal Disease Diagnosis, HACCP Practices and Policies, Food Retail, Pest Risk Assessment II, Pest Risk Assessment III, FSIS Meat and Poultry Inspection I, Aquaculture, Tariff Rate Quota Administration, Biosafety, Cold Chain, Foreign Animal Disease Diagnostic, Food Retail, Veterinary Biologics, Meat Quality and Handling, and Dairy Genetics Management.

Food for Progress Assistance

2009 Food for Progress programming valued at \$11.5 million is facilitating the Dominican Republic's capacity to fully engage in modern commercial trade in food and agricultural products. The activities include upgrading of laboratory infrastructure, operations and analytical testing capabilities; development of animal health surveillance, inspection and sanitary standards for animal products; risk assessment methodologies and development of risk mitigation methods; traceability of agricultural products through the production and marketing chain; coordination and participation in international standard-setting organizations; and strengthening of domestic Sanitary and Phytosanitary institutions and infrastructure, such as animal and plant quarantine stations in ports and airports.

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El Salvador SPS Capacity Building Report

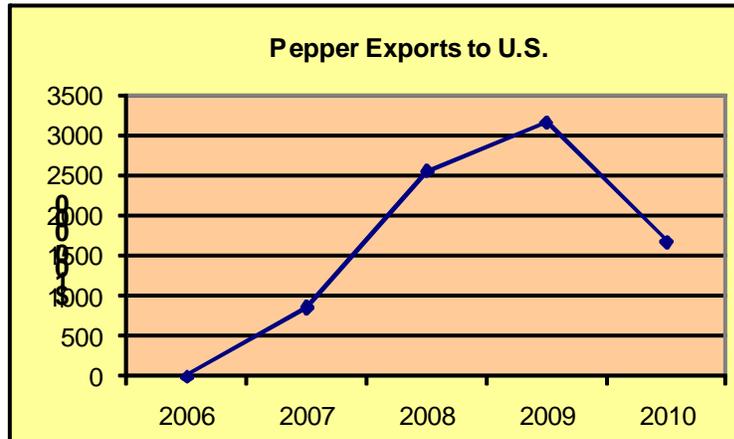
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Summary

The US Department of Agriculture’s (USDA) Foreign Agricultural Service (FAS), with funding from the US Agency for International Development (USAID), has worked closely with the government of El Salvador since the signing of CAFTA-DR in 2005 to provide prioritized technical assistance for both the public sector and private industry. These activities have been part of Sanitary Phytosanitary (SPS) trade capacity building efforts in El Salvador which are currently in progress to improve El Salvador’s agricultural trade in the international marketplace (activity details can be found in Appendix A). To date 724 people from both the public and private sector have been trained and over 208 firms have benefited from technical assistance since 2005.

The Program has contributed to significant impact, including:

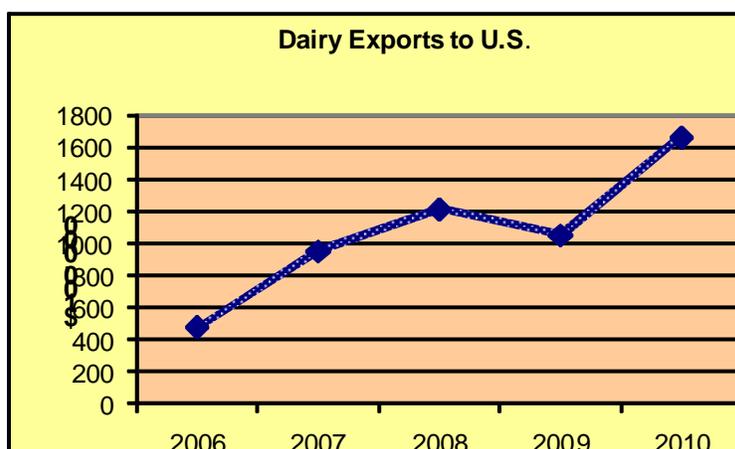
- SPS capacity building has helped El Salvadoran organizations meet USDA Animal and Plant Health Inspection Service (APHIS) mitigating measures required for exporting to the United States, contributing to imports by the United States of over \$8.3 million fresh peppers since 2007.



- Technical assistance provided during Central American Custom Union (CACU) meetings, helped El Salvador, along with other Central American countries, to pass a Harmonized Regulation on Microbiological Residue Standards for Food. The new regulation standardizes maximum residue levels for over 95% of microbiological pathogens. This provides the El Salvadoran food industry with a solid regulatory framework from which to export foods that meet international standards.
- El Salvador has joined with other CAFTA-DR countries to form a working group to harmonize laboratory procedures and standardize testing methods. With help from US experts, over 15 diagnostic protocols have been harmonized that meet internationally accepted standards to date.
- Technical assistance focusing on U.S. labeling requirements contributed to a decrease in the number of refusals due to labeling of agricultural exports from 68% in 2006 to less than 1.5% in 2009.
- El Salvador has passed laws which recognize that the United States meat and poultry inspection system is “Equivalent”. Adopting these laws was a pre-condition for implementation of CAFTA-DR.

- El Salvador has written the meat inspection law and its waiting approval.

- Capacity building directed at dairy processing has helped increase the number of plants approved to export to the U.S. from 0 to 4 plants exporting in 2010. U.S. imports of dairy products from El Salvador have increased an average of 200% from 2005 to 2009.



Institutions that received Targeted Capacity Building Activities

1. Ministry of Agriculture Animal Health Division
2. Ministry of Agriculture Plant Health Division
3. Ministry of Agriculture Food Safety Division
4. Ministry of Health Food Safety Division
5. National Laboratory at Matazano
6. Petacones Dairy Plant
7. Lactosa Dairy Farm
8. San Julian Dairy Plant
9. Metapan Dairy Plant
10. Morazan Dairy Cooperative
11. Sigma Foods Deli meat plant
12. Sigma Foods Swine Slaughterhouse
13. National Agriculture School (ENA)
14. OIRSA Pesticide Residue Laboratory

Laws Passed with US Technical Assistance

1. Law creating the mechanism for Equivalence 2006
2. Law Granting the US Meat System Equivalence 2006
3. Law Increasing the Fees at National Laboratory 2007

Moving Forward

In the summer of 2010, El Salvadoran officials completed a survey indicating their opinions regarding the level of completion of primary aspects of the SPS systems, (detailed data in Appendix B). USDA experts used the data collected from this survey to evaluate specific gaps in each system and develop recommendations for moving forward. Below are those recommendations.

Food Safety

- **Implement meat inspection regulations** that encompass regulations on official inspection, Hazard Analysis and Critical Control Point (HACCP), Standard Operating Procedures (SOP) and a National Residue Program.. The GoES, with help from U.S. experts, is developing the language; it must then be signed to become an enforceable law.
- **Establish a meat inspection division** within the Ministry of Agriculture that oversees meat processing. Such an operation needs sufficient veterinarian inspectors to provide oversight for all exporting plants. Inspectors' salaries should not be paid by plants, but through a sustainable fee for service system; OIRSA has offered to help set-up such a system.

- **Increase government oversight in the review and testing of the pasteurization systems** for plants exporting to the U.S. Currently some exporting plants' pasteurization systems are not properly functioning.
- **Collaborate with the Food and Drug Administration (FDA) to identify a heat treated, non-pasteurized cheese product that complies with FDA requirements** for fresh cheese exports. The development, manufacturing and export of such a cheese would result in fewer issues of non-compliance with U.S. pasteurization requirements.
- **Allocate adequate funds and hire well-trained staff for all laboratories.** The national laboratory at the Ministry of Agriculture (MATASANO) needs to utilize income earned from diagnostic services to maintain adequate supplies, buy new equipment, and hire and keep highly trained personnel
- **Develop/implement the requirements for pesticide registration by equivalency** implement the regional Central America Customs Union (CACU) initiative to harmonize CAFTA-DR and CACU regulations. This initiative may help to lower the cost of pest control for farmers.
- **Develop a national food safety (pesticide MRL) program** that includes a national pesticide MRL monitoring program to improve government oversight.

Animal Health

- **Establish a National Indemnity Program.** This program would guarantee funding to provide incentives for people to report suspected cases of disease and to pay producers for animals taken by the State. The program must have the capabilities to address a Foreign Animal Disease Outbreak for a minimum of two weeks from specific earmarked funds for the national emergency.
- **Allocate sufficient funds to maintain adequate staffing and resources** for a viable animal health system that includes a quality surveillance system of all animal diseases. Adequate funds and well-trained staff help to ensure the quality of all the components of an animal health and surveillance system.
- **Establish a national animal identification program** within the public sector. This helps to ensure viable animal health control and eradication programs to function properly and ensure traceability of diseased animals.
- **Implement a National Veterinary Accreditation Program.** A program is necessary to accredit an adequate number of veterinarians to provide day-to-day services to livestock farmers and professionals capable of responding to immediate national outbreaks of disease.

**El Salvador
SPS Capacity Building Activities
2005-2011**

Country	Participants	Public Sector	Private Sector	Female	Firms
El Salvador	724	390	333	260	208

HACCP, Anti-Mortem and Post-Mortem Training El Salvador

May 2011

A retired veterinary inspector from FSIS and an expert in HACCP from the Inter-American Institute for Cooperation on Agriculture (IICA) provided training on HACCP and post-mortem and anti-mortem techniques for government inspectors and meat producers. Participants included government officials and the private sector. The retired FSIS veterinary inspector also conducted pre-audits of a swine plant that is seeking equivalence with the United States. This training is part of the ongoing USDA-led program to assist the El Salvador in achieving equivalency with the United States for processed meat products. This is a requirement by the USDA/FSIS for countries that wish to export pork and meat products to the United States.

Food Safety Directors Meeting

April 2011

A 3-day regional meeting was conducted in El Salvador with the participation of Food Safety Directors from all Central America Countries to review the recently passed Central American Microbiological Standards for Food. Participants included Food Directors from both Ministry of Health and Ministry of Agriculture. The purpose of this meeting was to reevaluate some standards that were set by the Ministry of Health that were not consistent with internationally accepted standards. In addition, the Ministries of Agriculture were not included in the creation of this new regulation and this meeting was to provide both working groups the opportunity to work together on the revised legislation. This activity was organized by OIRSA though funds provided by USDA for continued work on harmonizing Central American food safety standards. OIRSA also contribute its own funds to cover venue, translation, transportation and coffee breaks.

Microbiology Laboratory training on E. coli 0:157:H7 and Salmonella

March 2011

FAS provided a specialized training to participants from Guatemala, Honduras, and El Salvador to improve the use of testing methodologies for detecting E. coli and salmonella in foods and the implementation of international standards for quality control and assurance. On-site laboratory training was conducted in Honduras. Support for this activity is part of a long-term capacity building program aimed to strengthen the CAFTA-DR national laboratories in operational and testing methods to meet U.S. and international standards. Training was conducted on both USDA and FDA methods to meet both regulatory agencies. Trainers included an expert in FSIS methodologies and two FDA employees.

Evaluation of National Animal Health Laboratories

February 2011

From February 9-10, 2011 FAS sent a technical expert to El Salvador to conduct an exit evaluation of the National Animal Health laboratory's current status, evaluate progress made since the inception of the CAFTA-DR project, and identify remaining technical assistance gaps as well as progress achieved after 5 years of technical assistance. This evaluation will be incorporated into the closeout reporting for the CAFTA-DR SPS Technical Assistance PAPA ending in May 2011.

Technical Assistance on FSIS Standards and Regulations for Meat Equivalence

February 2011

A retired Food Safety Inspection Service (FSIS) Veterinary Inspector visited El Salvador to provide further technical assistance to the Government of El Salvador on the writing of slaughterhouse regulations. El Salvador is seeking equivalence with the United States to export meat and meat products (specifically pork). However, their existing regulations do not meet the Food Safety Inspection Service (FSIS) standards. This was the final of three interventions carried out to prepare the legislation and it was completed during this visit.

Technical Assistance writing of Slaughterhouse Regulations

September 2010

USDA/FAS provided El Salvador with technical assistance on writing the new slaughterhouse inspections law. This new law is the first step to achieving equivalency with the US, a necessary step for El Salvador to export pork and pork products to the US. The expert providing technical assistance also conducted pre-audits of various swine plants in El Salvador that are seeking equivalency. The purpose of the activity was twofold: to write a new law that will meet FSIS regulations and to evaluate and confirm that suggested changes required in order to meet FSIS standards and regulations have taken place at the plants.

Regional Residue Laboratory Training in Dominican Republic

August 2010

USDA/FAS led a pesticide residue laboratory training for Ministry of Agriculture technicians in Santo Domingo, Dominican Republic. Residue experts from the U.S. Food and Drug Administration (FDA), the Environmental Protection Agency (EPA) conducted the training on residue analysis and laboratory accreditation. This activity is part of a long-term capacity building program aimed to strengthen the Central American national laboratories in operational and testing methods to meet U.S. and international standards. Proficiency in these laboratories is vital to maintaining a functional food safety system, and ensures the application of internationally-recognized analytical methods and tests.

Regional Good Laboratory Practices for Pesticide Residue Laboratories

August 2010

In collaboration with the Office of Enforcement and Compliance Assurance, Environmental Protection Agency (EPA), and Rutgers University's Interregional Research Project Number 4 (IR-4), USDA/FAS trained pesticide technicians in good laboratory practices (GLP) in San Jose, Costa Rica. The training was conducted in cooperation with the University of Costa Rica. Compliance with EPA's GLP standards ensures the quality and integrity of laboratory test data, which is submitted in support of pesticide product registrations. This activity was jointly funded by USAID and USDA EMP funds and included participation from 19 Latin American countries, including El Salvador.

Regional Zebra Chip and Trips Palmi Training in Honduras

August 2010

USDA/FAS sent partners from the Agricultural Research Service (USDA/ARS) and the University of Florida, to provide technical information on preventing Trips Palma and Zebra Chip Plant Pests in crops to a regional workshop hosted by OIRSA. The *Organismo Internacional Regional de Sanidad Agropecuario* (OIRSA), a regional plant and animal protection organization, sponsored the workshops to increase the strength of pest prevention in the CAFTA/DR region. Program participants, representing countries including Panama, Dominican Republic and Belize, were funded by OIRSA, while USDA provided expenses for the experts.

Residue Laboratory Training in El Salvador

July 2010

USDA/FAS led a pesticide residue laboratory training for Ministry of Agriculture technicians in San Salvador, El Salvador. Residue experts from the U.S. Food and Drug Administration (FDA), and the Environmental Protection Agency (EPA) conducted the training on residue analysis and laboratory accreditation. This activity is part of a long-term capacity building program aimed to strengthen the Central American national laboratories in operational and testing methods to meet U.S. and international standards. Proficiency in these laboratories is vital to maintaining a functional food safety system, and ensures the application of internationally recognized analytical methods and tests.

El Salvador Review of Classic Swine Fever Program

April 2010

USDA/FAS sent a technical expert to complete a review of El Salvador's classical swine fever (CSF) surveillance program. The expert assessed the CSF status and provided targeted training, assistance and recommendations for system improvements. This is a follow up event from the audit carried out in FY2008. The goal of this activity was to assist Salvadoran officials prepare for an official APHIS audit to declare the country free of Classic Swine Fever so El Salvador can export pork products to the United States.

Good Agricultural Practices workshop in San Salvador**December 2009**

USDA/FAS, in conjunction with the University of Maryland's Joint Institute for Food Safety and Applied Nutrition (JIFSAN) and FDA, conducted a "Good Agricultural Practices" (GAPs) workshop in El Salvador. This training was designed to train Salvadoran extension officials and influential members of local producer organizations in a broad range of good practices both on the farm, and in processing. The workshop provided Salvadoran producers with the knowledge necessary to produce safe products for export, thus protecting the U.S. consumer, and facilitating trade.

Guidance on Pesticide Registrations**October 2009**

USDA/FAS collaborated with the United Nations Food and Agriculture Organization (FAO) on harmonization pesticide registration procedures for Central American countries in Panama City, Panama. Workshop topics included current regional harmonization efforts: identifying specific obstacles Central American countries face regarding harmonization, review of current registration legislation in each country, and guidance to harmonize legislation across the region. This will benefit two-way trade of agricultural products by establishing common pesticide standards within Central America, reducing the likelihood that exports violate pesticide residue standard of individual countries.

Trans-boundary Animal Diseases**September 2009**

Salvadorian officials attended the Spanish speaking ICTAD course at the Foreign Animal Disease Diagnostic Laboratory on Plum Island, New York. The participation of key government regulatory and veterinary officials in the workshop increased the capacity of emerging markets in Latin American countries to identify and diagnose diseases in poultry and livestock. The ability to diagnose diseases reportable to the OIE and other standard setting bodies will greatly increase compliance with and adoption of the US model as these countries develop their animal health surveillance systems, therefore increasing market access and exports to Latin America.

Regional Chile Pre-clearance Study Tour**August 2009**

USDA/FAS organized a study tour of Chile's Plant Health System. Participants included Ministry of Agricultural Officials from all CAFTA-DR countries, with exception of Honduras, and key private sector individuals. The purpose of this trip was to view a successful model for plant products export to the U.S. and to allow Chilean exporters to showcase their system and share their experiences with their CAFTA-DR neighbors. This unique third country training allows CAFTA-DR participants to gain a better understanding of how plant health surveillance, inspection, quarantine and certification is conducted, the roles of each party in that process and the infrastructure required to sustain the effort. The tour included a full review of national procedures and USDA requirements at various quarantine, inspection and processing facilities in Chile. This training was coordinated by USDA/FAS and USDA/APHIS, as well as FAS/Santiago, APHIS/Santiago and SAG (Ministry of Agriculture in Chile).

Maximum Residue Level's (MRL) Specialty Crop Seminar on Pesticides**August 2009**

USDA, in coordination with the Food and Agriculture Office of the United Nations, held a regional workshop in San Jose, Costa Rica to address the harmonization of pesticide maximum residue levels (MRLs). Workshop topics included international harmonization efforts, identifying specific obstacles Central American countries face regarding MRLs, discussing how to better coordinate various efforts, and providing recommendation on how countries can better engage and benefit from Codex and other international systems.

Low Acid Canned Foods Regional Training**June 2009**

FAS sponsored a regional training on LAFC by teaching the Better Process Control School (BPCS) course in San Salvador, El Salvador. Currently, the Food and Drug Administration (FDA) regulations require all exporters of canned foods to have one supervisor on the premises whenever the processing plant is operating. This operating supervisor must have successfully completed a school approved by the FDA. The most common method of compliance is to hold the official BPCS certification course. This training built capacity of the industry to implement improvements to the food safety management systems and of inspection officials to provide adequate oversight and verification of those systems.

Regional Microbiology Laboratory Training**April 2009**

USDA/FAS led a training food microbiological analysis in Managua, Nicaragua for the technicians of the national testing laboratories of Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Nicaragua. The training covered Salmonella on meat, dairy and fresh produce as well as protocol for validation of microbiological methods. This training is part of a long-term capacity building program aimed to strengthen the CAFTA-DR national laboratories in operational and testing methods to meet U.S. and international standards. Proficiency in food microbiological methods is vital in maintaining a functional food safety system, and ensures the application of internationally-recognized analytical

Regional Pest Diagnostic Training**March 2009**

A regional plant pest diagnostic training for laboratory personnel from all the CAFTA-DR countries plant health laboratories took place in Guatemala. The training included lectures on various fungi and viruses of export importance, hands-on laboratory detection methodology and finalizing of standard operating procedures. While the primary focus of the training was on Nematodes (a plant pest) other relevant priority plant pests and diseases were also addressed. The long-term goal of this activity is to expand agricultural trade by strengthening CAFTA-DR national laboratories in accurate operational and testing methods to meet U.S. and international standards.

Regional Bovine Laboratory Training**March 2009**

USDA sent a team of animal health laboratory experts to El Salvador who conducted a regional animal health laboratory training in El Salvador. This training addressed bovine serology and PCR testing on bovine diseases Brucella, Anaplasmosis Bovine Leucosis and Bluetongue. The training included participation of all CAFTA-DR countries except for Nicaragua, who could not participate. This is part of the ongoing process to improve the Animal Health Laboratories of the CAFTA-DR countries to meet international standards and achieve certification.

Central America Laboratory Training on Pesticide Residues**February 2009**

USDA conducted a workshop in San Jose, Costa Rica for technicians from national laboratories in Costa Rica, Dominican Republic, El Salvador, Guatemala and Honduras. The purpose was to improve the use of testing methodologies for detecting pesticide residues in foods. The objective of this training is to implement international standards for quality control and assurance, thereby supporting a functional food safety system.

El Salvador Review of Classical Swine Fever Program**February 2009**

USDA/FAS completed a review of El Salvador's classical swine fever (CSF) surveillance program. USDA assessed the disease status and provided targeted recommendations for system improvements. This is follow-up on previously provided trainings. In March 2008 regulatory officials in El Salvador received training on CSF surveillance measures and diagnostics through a regional train-the-trainer workshop. Afterward, training was provided in-country for other government officials and the private sector. The goal of this assessment was to evaluate El Salvador's preparedness for international equivalence and certification and pass an APHIS audit. The reviewer was an ex-APHIS employee that carried similar work during the NAFTA implementation process with Mexico. In addition to the audit, the expert also carried out training on Veterinarian Accreditation Program that included participation from Government Officials, Private Veterinarians, OIRSA and University Professors. Below is the information on the participants for the accreditation training.

Pork Plants Pre-Audit in El Salvador**February 2009**

USDA/FAS conducted a pre-audit at pork plants in El Salvador which is seeking equivalence. The direct focus of this activity was to evaluate the plants and suggest changes and updates needed to meet FSIS regulations. In addition, the expert spent three days working with the Ministry of Agriculture reviewing their slaughterhouse inspection regulations as well as helping them fill out the FSIS questionnaire for Equivalence request. A retired FSIS veterinary expert carried out the inspections in one meat plant and 2 slaughterhouses.

Dairy Training and Technical Assistance in El Salvador***January 2009***

USDA/FAS sent experts to El Salvador to follow up with dairy plants on implementation of recommended HACCP procedures, Pasteurization, Good Manufacturing Practices and the use of proper equipment. This was done to achieve international dairy sanitation standards required for exports and meet FDA regulations. The objective of this effort is to increase the level of two-way trade in dairy products. A total of 6 dairy plants were visited and provided with technical assistance.

Regional Peppers and Tomatoes Quarantine Pest Diagnostics***September 2008***

Salvadoran officials participated in a regional workshop held in Honduras for all the CAFTA-DR countries on the identification and diagnosis of the ten quarantine pests that are part of the final rule for exports of peppers and tomatoes from the CAFTA-DR countries. Participants represented both government and private sector. The course took place at the Honduran Foundation for Agricultural Investigation (FHIA) so that the experience stays in the region with local experts.

Laboratory Assessment of Progress and Planning***August 2008***

USDA/FAS led an evaluation of the National Laboratories in Nicaragua, Honduras, El Salvador, Guatemala, the Dominican Republic, Costa Rica, and Panama. The labs evaluated were in the areas of Animal Health, Pesticide Residue, and Microbiology. In addition to the evaluation, the team convened in Costa Rica to decide upon upcoming laboratory trainings for each country. Experts from the Food Safety Inspection Service, the Environmental Protection Agency and Food and Drug Administration participated in the evaluation of the labs and in the final meeting in Costa Rica. This activity is part of a long-term capacity building program aimed to strengthen the CAFTA-DR and Panama national laboratories in operational and testing methods to meet US and international standards. Proficiency in these laboratories is vital to maintaining a functional food safety system, and ensures the application of internationally-recognized analytical methods and tests.

Laboratory Training Pesticide Residue***June 2008***

A team of experts from EPA were sent to El Salvador for a regional training on pesticides residue diagnostics and the formulation of testing protocols. This training is part of a long-term capacity building program aimed to strengthen CAFTA-DR and national laboratories in operational and testing methods to meet U.S. and international standards. Proficiency in pesticide residue analyses is vital in maintaining a functional food safety system, and ensures the application of internationally-recognized analytical methods and tests.

Good Dairy Processing Practices***May 2008***

FAS sponsored training on FDA food safety requirements for dairy processing in El Salvador. This course was provided in El Salvador with information on FDA requirements for Good Manufacturing Practices (GMP's), HACCP, and Pasteurization in advance of the FDA inspections of their facilities, scheduled to occur in June 2008. The training builds capacity of the industry to implement improvements to the food safety management systems and of inspection officials to provide adequate oversight and verification of those systems. The four day course included three days of classroom information and a one day site visit to practice knowledge acquired. Comments from Ministry Officials after the FDA audits were very positive and they expect to increase the amount of plants that are eligible for export.

Regional Swine Surveillance System***May 2008***

A regional course was provided to all the CAFTA-DR countries in Guatemala. This was set up as a train-the-trainer approach and included participation from all the Ministries of Agriculture from the CAFTA-DR countries as well as presentations from APHIS, FAO, and OIRSA. The purpose was to review all the countries' Classic Swine Fever programs and train technicians on proven practices for the eradication of the disease. The trained personnel will now continue the training to both government officials and private sector personnel in each of the CAFTA-DR countries.

Regional Pest Risk Assessment Training**April 2008**

USDA/FAS hosted a Pest-Risk Assessment workshop in San Pedro Sula, Honduras. Participants to the workshop included regulatory officials from all the CAFTA-DR countries. FAS worked closely with the Animal and Plant Health Inspection Service (APHIS) to develop this training, and APHIS specialists conducted the workshop. The purpose was to provide the necessary steps needed to get a new fresh product through the US regulatory system. The workshop also included a site visit to laboratories in the Honduran Agricultural Research Foundation (FHIA). The workshop builds institutional strengthening at the Ministries of Agriculture to improve their procedures and increase the speed in which new fresh plant products can achieve market access to the US. In addition, an outline of the new Q56 regulation was provided. This is the new APHIS regulation that went into effect in May of 2008 that allows for an expedited PRA procedure and allows countries to achieve market access at an accelerate rate.

Regional Laboratory Training for Food Microbiology**March 2008**

A team of experts traveled to El Salvador to provide training in food microbiology and trained laboratory technicians from CAFTA-DR countries on advanced analytical methods. The goal of this on-going program is to ensure that commodities entering U.S. markets from CAFTA-DR countries comply with U.S. food safety regulations and also ensure that testing methods used by CAFTA-DR countries on U.S. imports are conducted accurately, using standard international procedures USDA's Emerging Markets Program (EMP) provided partial funding for this activity.

Laboratory Training in Animal Health and Pesticide Residues**March 2008**

A team of experts traveled to Honduras to provide training in the areas of animal health and pesticide residues and trained laboratory technicians from CAFTA-DR countries on advanced analytical methods. The goal of this on-going program is to ensure that commodities entering U.S. markets from CAFTA-DR countries comply with U.S. food safety and animal disease regulations, and also ensure that testing methods used by CAFTA-DR countries on U.S. imports are conducted accurately, using standard international procedures. Funding for this program was provided by the U.S. Agency for International Development (USAID) and the USDA Emerging Markets Program (EMP) in support of CAFTA-DR. Three protocols for Real Time PCR were established during this training that included Newcastle, Salmonella and Avian Influenza.

Pesticide Tolerance and Registration**February 2008**

USDA/FAS, in collaboration with the U.S. Environmental Protection Agency (EPA), sent a pesticide expert from EPA to a regional customs union meeting on Pesticide Registration and Tolerance standards for the Central American Region held in El Salvador. The purpose of this technical assistance was to help the Central Americans harmonize their regulations on Residue Levels and Registration Standards. In addition, EPA met with government officials and discussed the current situation of pesticide registration and levels in Central America and U.S. requirements for exports.

Poultry Surveillance Activity**February 2008**

A delegation from El Salvador visited the United States to learn about U.S. poultry inspection systems. This activity aimed to promote relations between the U.S and El Salvador and to help the Salvadorian Government establish a poultry surveillance system that could achieve equivalency with the US. The delegation from El Salvador consisted of one lab technician, two food safety inspectors, one animal health specialist and two legal advisors. The delegation began meetings at USDA headquarters in Washington DC. Four members of the delegation then traveled to Atlanta, Georgia to visit FSIS laboratories and poultry processing facilities while the two legal advisors continued meetings in Washington with FSIS. The group reconvened in Washington, DC to conduct exit interviews and depart to El Salvador.

FDA Food Labeling Regulations Requirements in El Salvador**January 2008**

Training on FDA Food Labeling Regulations was provided in San Salvador. The course focused on U.S. Food and Drug Administration (FDA) general labeling requirements, and detailed information required for specific commodities including meat, poultry, processed products and cases of fresh produce. Participants included a combination of private sector representatives currently exporting or trying to export to the United States, as well as local government representatives. A total of 123 participants attended the three-day course. The first two days focused on regulations. On the third day, participants brought in actual labels to examine and discuss the various issues.

Regional Plant Pest Diagnostic Training**January 2008**

USDA and the University of Florida provided technical training to national plant laboratory personnel from the Dominican Republic-Central America Free Trade Agreement (CAFTA-DR) countries. The training was held in the Dominican Republic and focused on fundamental practices such as quality management systems (QMS), standard operating procedures and remote diagnostics. It also included a site visit to the Dominican Institute for Agricultural and Forest Research (IDIAF). The long-term goal of this activity is to expand agricultural trade by strengthening CAFTA-DR national laboratories in operational and testing methods to meet U.S. and international standards. Ten diagnostic protocols were written during this training that are now applied regionally.

Regional Quality Management Systems in Laboratories**December 2008**

Training was provided to the Quality Control, Animal Health, and Microbiology personnel of all the CAFTA countries on setting up a quality control system for their labs. The course included certification process of ISO 17025 and the documentation needed to meet ISO standards. The course also included one day at the lab to review Costa Rica's experience in implementing the system. The last day of training provided a review of FSIS and FDA regulations for Salmonella testing and how to properly carry out the test. Costa Rica is certified on this procedure and a visit was conducted at their laboratory to review the procedure in a laboratory.

Laboratory Managers Training**September 2007**

This was the second of the trainings provided to the Laboratory Managers of all the CAFTA-DR countries. This training emphasized quality control, LIMS and review of the SSOP's that the groups had been working on. The participants included managers of animal health, plant health and food safety laboratories of both the Ministries of Agriculture and Health.

US Regulatory System**August 2007**

This was a regional course on how the US regulatory system works. It was designed to explain the different agencies that oversee the US regulatory system. Presentations were provided by FDA, APHIS (both plant health and animal health), FSIS and Customs. This course provided the directors of animal health, plant health and food safety from all the CAFTA-DR countries the opportunity to meet their counterparts in the US government and begin to resolve issues directly.

Risk Assessment Course**August 2007**

This two-week regional course, provided in conjunction with JIFSAN and FDA, covered risk assessment for processed foods. The course included all aspects of risk assessment as well as statistical exercises on establishing risk levels. FDA also reviewed the regulations that apply to food and allowable levels of residue and testing methods.

Miami SPS Regional Workshop**August 2007**

USDA provided a regional course on how the U.S. regulatory system works. Presentations were provided by FDA, APHIS (both plant health and animal health), FSIS and customs. This course provided the Directors of Animal Health, Plant Health and Food Safety from all the CAFTA-DR countries the opportunity to meet their counterparts in the U.S. government and begin to resolve issues directly.

Ports & Containers Inspection**June 2007**

USDA/FAS, in cooperation with APHIS, conducted a regional training on regulations for the importation of plants and plant products to the U.S. and inspection techniques in order to reduce the number of shipments from CAFTA-DR countries detained at U.S. ports of entry for phytosanitary infractions.

Poultry Surveillance Systems Workshop**June 2007**

USDA/FAS, in coordination with APHIS and FSIS, conducted a regional workshop in Managua on poultry surveillance systems. The overall goal of this workshop was to provide regulatory and industry officials in the CAFTA-DR countries with the knowledge to be able to begin to build poultry surveillance systems that meet OIE and APHIS standards. Building these animal health systems will not only increase trade with Central America but will also, and perhaps more importantly, especially in the short-term, help to enhance agricultural biosecurity in Central America and the United States.

Phytosanitary Principle**May 2007**

USDA/FAS, in conjunction with APHIS, organized a regional course on phytosanitary principles that included training on pest risk assessment, Q37 and Q56. In addition, the CAFTA partners were trained on how the US conducts its surveillance system, port inspection procedures, as well as pest database management. A total of eleven APHIS representatives conducted this intense training.

Laboratory Management Course**April 2007**

USDA/FAS provided a regional training course on laboratory management. This course addressed the lab directors of animal health, plant health, microbiology and residue laboratories. The course included training on Good Laboratory Practices (GLP's), Laboratory Information Systems (LIMS), and other management techniques.

Good Dairy Sanitation Course**March 2007**

A course on good dairy sanitation was provided to Salvadorian dairy producers. This course was designed to help small producers improve the quality and safety of their milk. Experts from Utah State University provided training for three days on all aspects of milking, including a day of practice in the field. The attendants included small producers and officials from the Ministry of Health and Ministry of Agriculture.

Peppers and Tomatoes Pest Risk Workshop**November 2006**

USDA/FAS, in cooperation with USDA/APHIS, provided a regional training on compliance regulations for mitigating measures to export peppers and tomatoes to the U.S. This regulation was established as the final rule for admissibility as part of the Pest Risk Assessment.

Biotechnology Course**September 2006**

This three-week course in Washington D.C. was organized for the members of the National Committee for Modified Organisms. This workshop detailed international standards for genetically modified organisms (GMO's) and the basic scientific methodology for identification and classification of GMOs.

Avian Pathology Workshop**September 2006**

This regional workshop concentrated on proper avian health surveillance systems and diagnostics. Emphasis was put on the top four diseases (Newcastle, Avian Influenza, Laryngotracheitis, and Infectious Bursal Disease) reportable under the OIE for exportation of poultry and poultry products.

National Laboratory Assessments**August 2006**

USDA/FAS organized an assessment of laboratories for microbiology, and animal and plant health. This assessment resulted in specific recommendations for improvement of lab standards and provided USDA with feedback for future technical assistance needs. In addition, \$1 million was provided to our CAFTA-DR partners under Food for Progress to aid in the purchase of necessary laboratory equipment and supplies.

Tuberculosis and Brucellosis Technical Assistance

May 2006

USDA/FAS organized a regional workshop on developing an animal health surveillance system and proper diagnosis of tuberculosis and brucellosis.

FSIS Meat Inspection Training in Puerto Rico

May 2006

USDA/FAS supported a regional course that explored a comprehensive approach to meat inspection techniques and regulations. The course, organized by FSIS yearly, is equivalent to the course required for U.S. inspectors.

Good Agricultural Practices

February 2006

USDA/FAS coordinated a workshop that addressed FDA regulations on food safety issues regarding fresh agricultural products. Training included pathogen reduction, product handling, packaging, safe transport, and standard sanitary practices.

Dairy Plant Audits by FDA

February 2006

USDA/FAS, in cooperation with the FDA, audited eight dairy plants to establish areas for future technical assistance that will facilitate the development of FDA equivalent regulations in the Salvadoran dairy industry.

U.S. Meat Inspection System Audit

February 2006

A team of inspectors from El Salvador traveled to the United States to audit U.S. meat and poultry plants to verify U.S. inspection systems compliance with international food safety standards for equivalence recognition and learned about auditing other countries.

World Trade Organization (WTO) SPS Agreement

December 2005

USDA and WTO personnel provided a regional training on the details of the SPS agreement as well as the rights and obligations of each country.

Hazard Analysis and Critical Control Point (HACCP) Training

October 2005

As part of the equivalency process, HACCP principles were outlined in a workshop organized by USDA/FAS. HACCP guidelines are an integral part of USDA requirements to export meat and meat products to the United States for both processing plants and slaughterhouses. The next two parts of this 3-part training were scheduled for 2007-08.

SPS Equivalence

September 2005

USDA/FAS organized a workshop for Salvadoran participants that detailed the practical implications of the WTO SPS agreement with regard to equivalence, and described the legal framework for the mechanism of policy change appropriate for granting equivalence.

Cochran Fellowship Program

FY2005 – FY2010

USDA/FAS has sponsored 20 Cochran fellows from El Salvador since fiscal year 2005. The fellows participated in the following trainings: Fruit and Vegetable Production and Handling, Establishing Microbiological Criteria for Food Safety, Grain Handling, Export Financing, Foreign Animal Disease Diagnosis, School Feeding, HACCP Practices and Policies, Produce Handling, Food Safety, Cold Chain Management, APHIS International Course on Transboundary Animal Diseases, FSIS Meat and Poultry Inspection I, and Table Grape Marketing and Handling.

Food for Progress Assistance

A 2004 Food for Progress, Government-to-Government agreement programming valued at \$4,425,000 strengthens trade capacity in El Salvador through broad-based and sustainable economic development activities in rural communities. Activities include introduction of potable water systems, and provision of latrines and community health education in key rural communities; rural infrastructure and technical assistance to raise incomes of rural area residents; promotion of micro and small agribusiness efforts in developing non-traditional crops; and pest-risk analysis and improvements in lab sample techniques to generate export-ready commodities.

A 2010 Food for Progress, Government-to-Government agreement programming valued at \$12 million to strengthen trade capacity in El Salvador through SPS and economic and social

development projects. The SPS activities emphasize integrated regulatory information systems, upgraded laboratory infrastructure and analytical methods, national WTO/SPS enquiry points, promotion of animal health, inspection and sanitary standards for animal products, and risk assessment methodologies. The economic and social development projects focus on training and technical assistance for small and medium-sized farmers.

A 2005 Food for Progress, Government-to-Government agreement programming valued at \$5 million strengthens trade capacity in El Salvador through broad-based and sustainable economic development activities in rural communities. Activities include introduction of potable water systems, and provision of latrines and community health education in key rural communities; rural infrastructure and technical assistance to raise incomes of rural area residents; promotion of micro and small agribusiness efforts in developing non-traditional crops; and pest-risk analysis and improvements in lab sample techniques to generate export-ready commodities.

A 2007 Food for Progress, Government-to-Government agreement programming valued at \$5,022,000 strengthens trade capacity in El Salvador through broad-based and sustainable economic development activities in rural communities. Activities include introduction of potable water systems, and provision of latrines and community health education in key rural communities; rural infrastructure and technical assistance to raise incomes of rural area residents; promotion of micro and small agribusiness efforts in developing non-traditional crops; and pest-risk analysis and improvements in lab sample techniques to generate export-ready commodities.

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Summary

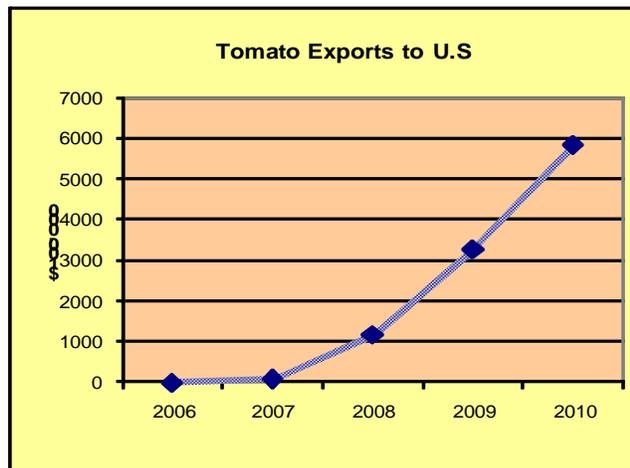
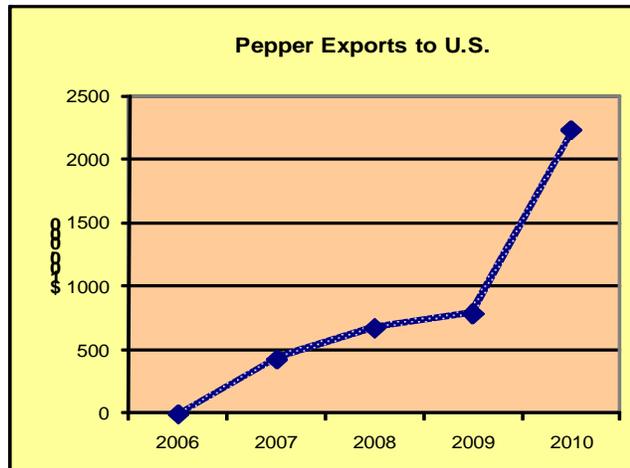
The US Department of Agriculture's (USDA) Foreign Agricultural Service (FAS), with funding from the US Agency for International Development (USAID), has worked closely with the government of Guatemala since the signing of CAFTA-DR in 2005 to provide prioritized technical assistance for both the public sector and private industry. These activities have been part of sanitary and phytosanitary (SPS) trade capacity building efforts in Guatemala which are currently in progress to improve Guatemala's agricultural trade in the international marketplace (activity details can be found in Appendix A). To date, 848 people from both the public and private sector have been trained and over 238 firms have benefited from technical assistance since 2005.

The Program has resulted in significant impact, including:

- As a result of technical assistance targeting quarantine pests in fresh produce, Guatemala fruit exporters were able to decrease port detentions in the United States. USDA's Animal and Plant Health Inspection Service estimates that at least one container a month has been saved with an economic impact of approximately \$600,000.

- SPS capacity building has helped Guatemalan organizations meet USDA Animal and Plant Health Inspection Service (APHIS) mitigating measures required for exporting peppers and tomatoes to the United States. This has resulted in imports by the United States of over \$4 million fresh peppers and \$7 million of tomatoes since 2006. According to the Guatemalan Green House Producers Association, 45,000 jobs throughout the value chain have been created in Guatemala since the US market was opened for Guatemala peppers and tomatoes.

- After technical assistance in pesticide registration and maximum residue levels, illegal traces of the insecticide methamidophos were decreased, reducing the amount of containers of fresh vegetables detained to less than 500 for FY09 from over 1000 in FY08. In addition, Guatemala passed a law banning the use of this toxic substance.



- As a result of specific technical assistance provided during Central American custom union meetings, Guatemala, along with other Central American countries, passed a Harmonized Regulation on Microbiological Residue Standards for Food. The new regulation standardizes maximum residue levels for over 95 per cent of microbiological pathogens. This will provide the Guatemalan food industry with a solid regulatory framework which will allow Guatemala to export foods that meet international standards.
- Good laboratory practices and diagnostic methodology trainings have helped Guatemala's National Laboratory for the Ministry of Health achieve ISO 17025 accreditation.
- Guatemala has joined with other CAFTA-DR countries to form a working group to harmonize laboratory procedures and standardize testing methods. With help from US experts, over 15 diagnostic protocols have been harmonized that meet internationally accepted standards.
- With the help of technical assistance, officials wrote a law that is consistent with OIE and APHIS standards that regulates Poultry Plants Regionalization and Declarations of Free of Diseases. The law was passed in July 2010, thereby meeting a requirement for future Guatemalan market access into the United States
- Guatemala has passed laws that recognize the United States meat and poultry inspection system as "equivalent"; this was a pre-condition for CAFTA implementation.
- As a result of technical assistance Guatemala has passed a new meat inspection law that complies with international standards and meets FSIS regulations for equivalency.

Institutions that received Targeted Capacity Building Activities

1. Ministry of Agriculture Animal Health Division
2. Ministry of Agriculture Plant Health Division
3. Ministry of Agriculture Food Safety Division
4. Ministry of Health National Laboratory
5. Plant Health Laboratory
6. UNGAPESA Slaughterhouse in Peten
7. Pacayal Poultry Processing Plant
8. Procasa Beef processing Plant
9. Trebolac dairy plant
10. Chivolac dairy plant
11. Pasajinac dairy cooperative
12. ILGUA dairy plant
13. Glad Yogurt dairy plant
14. Xelac dairy plant cooperative
15. Cooperativa Cuatro Pinos
16. Agroexportadora San Juan
17. Agroindustria Legumex
18. Agro Exportadora Camana
19. Toledo Swine Slaughterhouse
20. Toledo Processing Plant
21. Delicarnes Slaughterhouse
22. PIPPA (National Plant Health Organization)

Laws Passed with US Technical Assistance

1. Law creating the mechanism for Equivalence 2006
2. Law Granting the US Meat System Equivalence 2006
3. Law creating official inspection on food processing plants 2006
4. Law Increasing the Fees at National Laboratory 2007
5. Law Declaring the University of San Carlos as the Official Reference Laboratory for Bovine Tuberculosis and Brucellosis
6. Law on Pesticide Registration 2008
7. Law Prohibiting Methamidophos 2008
8. Law on Declaration of Free Zones of Newcastle and Avian Influenza 2009
9. Law on meat inspection and Slaughterhouse operations 2010

Moving Forward

In the summer of 2010, Guatemalan officials completed a survey indicating their opinions regarding the state of completion of some primary aspects of different SPS systems, (detailed data can be found in Appendix B of this report). USDA experts used the data collected from this survey to evaluate specific gaps in each system and develop recommendations for moving forward. Below are those recommendations.

Plant Health

- **Expand and strengthen the institutional capabilities of Programa Integral Para la Proteccion Agropecuario (PIPPA) to oversee all fresh products being exported.** Currently PIPPA oversees only 7 products (fruits and ornamental flowers). Expanding this to include more fresh fruits and vegetables will save millions of dollars of product currently being detained/destroyed due to pests and/or pesticide residues.
- **Establish a Public-Private Partnership program.** Create or expand PIPPA's coverage by establishing a public-private partnership that can combine government funds and industry funds to maintain adequate inspection and oversight on the export of all fresh produce.
- **Strengthen the institutional capabilities of the Ministry of Agriculture to maintain a working plant health surveillance system that includes a quarantine program, pest risk assessment division, mapping pest prevalence, and a certified plant health laboratory facility.**

Animal Health

- **Allocate sufficient funds to maintain adequate staffing and resources** for a viable animal health system that includes a quality surveillance system of animal diseases. Adequate funds and well-trained staff help to ensure the quality of all the components of an animal health and surveillance system.
- **Establish an animal health laboratory** that has well-trained staff to support the animal health system with appropriate diagnostic capability.
- **Establish a national animal identification program** within the public sector. This helps to ensure viable animal health control and eradication programs to function properly and ensure traceability of diseased animals.
- **Establish a National Indemnity Program.** This program would guarantee funding to provide incentives for people to report suspected cases of disease and to pay producers for animals taken by the State. The program must have the capabilities to address a Foreign Animal Disease Outbreak for a minimum of two weeks from specific earmarked funds for the national emergency.

- **Implement a National Veterinary Accreditation Program.** A program is necessary to accredit an adequate number of veterinarians to provide day-to-day services to livestock farmers and professionals capable of responding to immediate national outbreaks of disease.

Food Safety

- **Implement new law to govern meat inspection.** The Government of Guatemala (GoG), with help from U.S. experts has passed the new law on meat inspection. Now it must fill out the FSIS Self-Assessment Questionnaire develop a national residue program and send it to FSIS for official review.
- **Establish a meat inspection division** within the Ministry of Agriculture that will oversee meat processing. Such an operation should have sufficient veterinarian inspectors to provide oversight for all exporting plants. Inspector salaries should not be paid by plants, but through a sustainable fee for service system; El Organismo Internacional Regional de Sanidad Agropecuaria (OIRSA) has offered to help set-up such a system.
- **Develop a national food safety (pesticide maximum residue levels (MRL) program** to continue to support quality food exports (meeting food safety requirements in destination markets) by agro exporters, especially for fruit and vegetables.
- **Develop a national pesticide MRL monitoring program** that is consistent with other CAFTA-DR and Central America Customs Union (CACU) standards.
- **Implement pesticide regulations adopted by the Guatemalan Congress in 2009.**
- **Strengthen/improve the enforcement and compliance programs** for pesticide post-registration activities (good agricultural practices (GAPs), safe-use, container disposal, etc.).
- **Improve the analytical performance of the National Laboratory (LNS) (pesticide residue and pesticide formulation laboratories).** Starting with expanding the current facility to accommodate new rooms for sample preparation and extraction rooms. Expand the number of pesticide residues (analyses) that can be screened for in food and formulated pesticide samples.
- **Implement and monitor pasteurization within dairy processing plants** with GoG oversight in order to meet US regulations.

Laboratories

- **Allocate adequate funds and hire well-trained staff for all laboratories.** The national laboratory needs to utilize income earned from diagnostic services to maintain adequate supplies, buy new equipment, and hire and keep highly trained personnel.

**Guatemala
SPS Capacity Building Activities
2005-2011**

Country	Participants	Public Sector	Private Sector	Female	Firms
Guatemala	848	476	372	289	238

Increase Reviews for Codex MRLs

May 2011

FAS collaborated with the United Nation's Food and Agriculture Organization (FAO) to identify and train experts from the Latin America region on pesticide residue evaluations to establish Codex MRLs. The objective of the training is to increase the number of technical experts who can serve on FAO's technical review committee for establishing MRLs, and therefore increase the number of Codex MRLs established annually. Additionally, a collaborative program between FAS and the Latin American countries will be proposed to generate residue data and establish MRLs for targeted specialty crops. This project was support USDA trade initiatives by establishing international pesticide trade standards for U.S. specialty crops. This program is funded by the Emerging Markets Program of USDA.

Food Safety Directors Meeting

April 2011

A 3-day regional meeting was conducted in El Salvador with the participation of Food Safety Directors from all Central America Countries to review the recently passed Central American Microbiological Standards for Food. Participants included Food Directors from both Ministry of Health and Ministry of Agriculture. The purpose of this meeting was to reevaluate some standards that were set by the Ministry of Health that were not consistent with internationally accepted standards. In addition, the Ministries of Agriculture were not included in the creation of this new regulation and this meeting was to provide both working groups the opportunity to work together on the revised legislation. This activity was organized by OIRSA though funds provided by USDA for continued work on harmonizing Central American food safety standards. OIRSA also contribute its own funds to cover venue, translation, transportation and coffee breaks.

Beef Pre-Audit and Technical Assistance on FSIS Equivalency Questionnaire

March 2011

USDA/FAS sent a retired Food Safety Inspection Service (FSIS) Veterinary Inspector to provide Guatemala pre-audits of 2 beef plants. Dr. Lee provided both the GOG and the private sector with technical assistance on how to get the plants to meet FSIS regulations in order to achieve market access to the U.S. These were follow up visits to prepare them for upcoming official inspections. In addition, technical assistance was also provided to help the GOG fill out the Equivalency Questionnaire required by FSIS to begin the process.

Microbiology Laboratory training on E. coli 0:157:H7 and Salmonella

March 2011

FAS provided a specialized training to participants from Guatemala, Honduras, and El Salvador to improve the use of testing methodologies for detecting E. coli and salmonella in foods and the implementation of international standards for quality control and assurance. On-site laboratory training was conducted in Honduras. Support for this activity is part of a long-term capacity building program aimed to strengthen the CAFTA-DR national laboratories in operational and testing methods to meet U.S. and international standards. Training was conducted on both USDA and FDA methods to meet both regulatory agencies. Trainers included an expert in FSIS methodologies and two FDA employees.

Plant Health Laboratory Diagnostics Training***March 2011***

Two technical experts from the University of Florida visited Guatemala to strengthen the laboratory capacity of the National Plant Health Laboratory. The experts provided specific technical information and training on how to use Polymers Chain Reaction (PCR) equipment, which were recently purchased using Food for Progress (FOP) funding for the detection of nematodes, viruses and bacteria. This training was provided to technicians from the government, Universities and export association.

Chilean Technical Assistance***February 2011***

USDA coordinated a visit by three technical experts from Chile to Guatemala, including a representative from the Ministry of Agriculture, the Chilean Export Industry, and the Agency of International Cooperation. The purpose of the one-week visit was to monitor, assess and determine the actions required to improve the current system of inspection and certification for Guatemalan fresh produce exports. The Chilean delegation visited commercial farms, packinghouses, exporters, and ports to better understand the existing system and to determine necessary actions, both from the private sector and the government, to meet Guatemala's demand for inspection and certification services. Chile uses a public-private partnership model that could be useful for Guatemala. The activity is the result of a port inspection and quarantine facility study tour to Chile in 2009 that included Guatemalan participants. The goal of this activity is to improve Guatemalan inspection and certification procedures in order to facilitate increased agricultural exports.

Pesticide Management Follow Up***January 2011***

Experts from the Environmental Protection Agency conducted follow-up activity on pesticide Maximum Residue Levels (MRL's) in Guatemala (the 1st targeted visit was conducted in 2011) in order to address the continuing FDA detentions of Guatemalan produce and the efforts/activities that continue to be implemented to minimize this issue. Another main objective was to discuss plans to implement the expert recommendations for joint activities to be implemented with key Guatemalan stakeholders. Experts met with producer groups and cooperatives such as Cuatro Pinos and presented their recommendations for better handling and management of pesticides with small producers.

Pesticide Laboratory Training***November 2010***

USDA held a pesticide residue laboratory training to strengthen Guatemala's national laboratories in operational and testing methods to meet U.S. and international standards. Strengthening national pesticide laboratories will reduce trade barriers for U.S. exporters by ensuring that internationally compliant methods are applied to U.S. products. The trainers were two experts, one from EPA and one from FDA.

HACCP, Anti-Mortem and Post-Mortem Training***October 2010***

USDA/FAS sent a retired veterinary inspector from FSIS and an expert in HACCP from the Inter-American Institute for Cooperation on Agriculture (IICA) to provide training on HACCP and post-mortem and anti-mortem techniques for government inspectors and meat producers in Guatemala City, Guatemala. Additionally the retired FSIS veterinary inspector also conducted pre-audits of various beef plants that are seeking equivalence. This training is part of the on-going USDA-led program to assist Guatemala in achieving equivalency with the United States for processed meat products. This is a requirement by the USDA/FSIS for countries that wish to export beef and meat products to the United States. A total of 42 persons participated.

Regional Good Laboratory Practices for Pesticide Residue Laboratories***August 2010***

In collaboration with the Office of Enforcement and Compliance Assurance, Environmental Protection Agency (EPA), and Rutgers University's Interregional Research Project Number 4 (IR-4), USDA/FAS trained pesticide technicians in good laboratory practices (GLP) in San Jose, Costa Rica. The training was conducted in cooperation with the University of Costa Rica. Compliance with EPA's GLP standards ensures the quality and integrity of laboratory test data which is submitted in support of pesticide product registrations.

Regional Zebra Chip and Trips Palmi Training in Honduras**August 2010**

USDA/FAS sent partners from the Agricultural Research Service (USDA/ARS) and the University of Florida, to provide technical information on preventing Trips Palmi and Zebra Chip Plant Pests in crops to a regional workshop hosted by OIRSA. OIRSA, a regional plant and animal protection organization, sponsored the workshops to increase the strength of pest prevention in the CAFTA/DR region. Program participants, representing countries including Panama, Dominican Republic and Belize, were funded by OIRSA, while USDA provided expenses for the experts.

Residue Laboratory Training in Guatemala**June 2010**

USDA/FAS led training on pesticide residue diagnostics at the National laboratory for Ministry of Agriculture and Ministry of Health technicians. Residue experts from the U.S. Food and Drug Administration (FDA) and Environmental Protection Agency (EPA) conducted the training on residue analysis and laboratory accreditation. This activity is part of a long-term capacity building program aimed to strengthen the Central American national laboratories in operational and testing methods to meet U.S. and international standards. Proficiency in these laboratories is vital to maintaining a functional food safety system and ensures the application of internationally recognized analytical methods and tests.

Pesticide Management Program Technical Assistance**May 2010**

As a follow up from the March 2010 trip, a retired EPA expert provided technical assistance to cooperatives and producer groups on how to set up a proper pesticide management system to prevent contamination of fresh produce. The expert worked closely with four producer groups, comprised of small producers totaling over 36,000 families. The purpose of this technical assistance was to create a pesticide management program that can prevent the contamination of fresh vegetables, and create a traceability program that can be used to identify producers that do not comply. The expert helped the producer groups create a sampling method that can improve the detection of residue in-country prior to shipment to comply with EPA and Food and Drug Administration (FDA) regulations. These visits included a vegetable export cooperative, a private vegetable export company, a variety of farmers and farming operations associated with these two exporting organizations, the Guatemalan National Health Laboratory, a trade association of pesticide manufacturers (Agriquima, affiliated with the international "Crop Life" network), the pesticide registration arm of Guatemala's Department of Agriculture (MAGA), several blackberry export companies, representatives from the Snow Pea Commission, representatives of PIPPA (a MAGA-accredited program that offers inspections and pre-certification for SPS requirements) and representatives of AGEXPORT (the Guatemalan Exporters Association).

Pesticide Management Program Technical Assistance**March 2010**

A retired EPA expert provided technical assistance to cooperatives on setting up a proper pesticide management system to prevent contamination in fresh produce. The expert worked closely with Cooperative Cuatro Pinos and Agroexportadora San Juan. Both of these organizations are comprised of small producers totaling over 26,000 families. The purpose of this technical assistance was to create a pesticide management program that can prevent the contamination of fresh vegetables, as well as create a traceability program that can be used to identify those producers that do not comply. The expert also helped these cooperatives create a sampling method to improve the detection of residue in-country prior to shipment and comply with EPA and FDA regulations.

Residue Laboratory Technical Assistance in Guatemala**March 2010**

USDA led a pesticide residue laboratory training for Ministry of Health technicians in Guatemala City, Guatemala. Residue experts from FDA and EPA conducted the training on residue analysis and laboratory accreditation. This activity is part of a long-term capacity building program aimed to strengthen the Central American national laboratories in operational and testing methods to meet U.S. and international standards. Proficiency in these laboratories is vital to maintaining a functional food safety system, and ensures the application of internationally recognized analytical methods and tests. In addition, an EPA expert provided technical assistance on the design of expansion blue prints for the pesticide laboratory.

Dairy Training in Guatemala***January 2010***

FDA and USDA experts traveled to Guatemala to follow up with six major dairy plants on the implementation of recommended HACCP procedures and to work on the next steps in achieving international dairy sanitation standards required for exports. The objective of this effort was to increase the level of two-way trade in dairy products between the United States and Guatemala.

OIE Regulations on Regionalization and APHIS Veterinarian Accreditation System***November 2009***

USDA provided technical assistance to the Government of Guatemala on how to implement World Organization of Animal Health (OIE) regulations on the regionalization of exotic diseases. The expert also trained government veterinarians on the official accreditation system that APHIS employs in the United States as part of an integral Animal Health System. In addition, the expert conducted an audit of the country's Bovine Tuberculosis and Brucellosis quarantine and surveillance system and provided recommendations to the Director of Animal Health on how to improve the system.

Technical Assistance on Writing the Slaughterhouse Regulations and Filling out the Equivalence forms for Food Safety Inspection Service***November 2009***

A USDA Food Safety Inspection Service (FSIS) expert provided technical assistance to the Government of Guatemala on writing the slaughterhouse regulations in order to meet FSIS regulations for exporting meat and meat products under equivalence. In addition, the expert worked with GoG to help them fill out the FSIS packet to officially request Equivalence with the United States. This is the first official step to initiate the process to export meat and meat products to the United States. In addition to finishing the review of the regulations, pre-audits were also carried out on two slaughterhouses and a processing plant.

Pesticides Residues Training***September 2009***

Laboratory training was provided to Ministries of Health and Agriculture technicians from the national residue laboratory. They received guidance to improve testing methodologies for detecting pesticide residues in foods. USDA and the FDA also conducted a mock-audit of the laboratory in preparation of international accreditation of the laboratory. The objective of this training was to implement international standards for quality control and assurance, supporting a functional food safety system and gaining confidence in Central American laboratories for sample testing of U.S agricultural imports. This training is part of a long-term capacity building program aimed at strengthening national laboratories in the CAFTA-DR region.

Trans-boundary Animal Diseases***September 2009***

Guatemalan officials attended the Spanish speaking International Trans-boundary **Animal Disease** Course (ICTAD) at the Foreign Animal Disease Diagnostic Laboratory on Plum Island, New York. The participation of key government regulatory and veterinary officials in the workshop increased the capacity of emerging markets in Latin American countries to identify and diagnose diseases in poultry and livestock. The ability to diagnose diseases reportable to the OIE and other standard setting bodies will greatly increase compliance with and adoption of the US model as these countries develop their animal health surveillance systems, therefore increasing market access and exports to Latin America.

MRL Specialty Crop Seminar on Pesticides***August 2009***

USDA, in coordination with the Food and Agriculture Office of the United Nations, held a regional workshop in San Jose, Costa Rica to address the harmonization of pesticide MRLs. Workshop topics included international harmonization efforts, identifying specific obstacles Central American countries face regarding MRLs, discussing how to better coordinate various efforts, and providing recommendation on how countries can better engage and benefit from CODEX and other international systems.

Regional Chile Pre-clearance Study Tour**August 2009**

USDA/FAS organized a study tour of Chile's Plant Health System. Participants included Ministry of Agricultural officials from all CAFTA-DR countries, with exception of Honduras, and key private sector individuals. The purpose of this trip was to view a successful model for plant products export to the United States and to allow Chilean exporters to showcase their system and share their experiences with their CAFTA-DR neighbors. This unique third country training allows CAFTA-DR participants to gain a better understanding of how plant health surveillance, inspection, quarantine and certification is conducted, the roles of each party in that process and the infrastructure required to sustain the effort. The tour included a full review of national procedures and USDA requirements at various quarantine, inspection and processing facilities in Chile. The training was organized and coordinated by USDA/FAS USDA/APHIS, as well as FAS/Santiago, APHIS/Santiago and SAG (Ministry of Agriculture in Chile).

Regional Pesticides Residues Training**July 2009**

The EPA Office of Enforcement and Compliance Assurance trained CAFTA-DR officials in Costa Rica on good laboratory practices (GLP). Compliance with EPA's GLP standards ensures the quality and integrity of laboratory test data which is submitted in support of pesticide product registrations. The training was conducted at the pesticide analytical laboratory of the University of Costa Rica, which is currently the only pesticide laboratory in the CAFTA-DR region accredited internationally under International Organization for Standardization (ISO), regulation 17025. FAS support for this activity is part of a long-term capacity building program aimed to strengthen CAFTA-DR national laboratories in operational and testing methods to meet U.S. and international standards.

Good Agricultural Practices Training Guatemala**July 2009**

USDA and the FDA trained roughly 80 fruit and vegetable producers and processors from the private and public sectors on Good Agricultural Practices. Guatemalan food safety officials requested assistance to address recent pathogen problems associated with exports. In response to the request, USDA worked with the Joint Institute for Food Safety and Applied Nutrition (JIFSAN), an FDA partnership with the University of Maryland to provide hands-on training workshop in GAPs. The training provided Guatemala with an adaptable framework of pest practices currently available to reduce microbial food safety risks.

Technical Assistance on Writing the Slaughterhouse Regulations and Filling out the Equivalence forms for FSIS**July 2009**

A USDA/FSIS expert provided technical assistance to the Government of Guatemala on writing the slaughterhouse regulations in order to meet USDA's FSIS regulations for exporting meat and meat products under Equivalence. In addition, the expert worked with GOG to help them fill out the FSIS packet to officially request Equivalence with the United States.

Guatemala Review of Classical Swine Fever Program**May 2009**

USDA completed a review of Guatemala's classical swine fever (CSF) surveillance program. USDA assessed the disease status and provided targeted recommendations for system improvements. This was a follow up of previously provided trainings. In March 2008 regulatory officials received training on CSF surveillance measures and diagnostics through a regional train-the-trainer workshop. Afterward, training was provided in-country for other government officials and the private sector. The assessment evaluated Guatemala's preparedness for international equivalence and certification and provided recommendations for passing an APHIS audit. In addition to the audit, the expert also carried out training on Veterinarian Accreditation Program that included participation from government officials, private veterinarians, OIRSA and university professors.

Technical Assistance on Writing the Slaughterhouse Regulations and Filling out the Equivalence forms for FSIS**May 2009**

As follow-up to the January 2009 activity, USDA provided technical assistance to the Government of Guatemala on writing the slaughterhouse regulations in order to meet USDA's FSIS regulations for exporting meat and meat products under Equivalence. The expert also worked with GoG to help them fill out the FSIS packet to officially request Equivalence with the United States.

Regional Microbiology Laboratory Training**April 2009**

USDA/FAS led a training food microbiological analysis in Managua, Nicaragua for the technicians of the national testing laboratories of Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, and Nicaragua. The training covered Salmonella on meat, dairy and fresh produce as well as protocol for validation of microbiological methods. This training is part of a long-term capacity building program aimed to strengthen the CAFTA-DR national laboratories in operational and testing methods to meet U.S. and international standards. Proficiency in food microbiological methods is vital in maintaining a functional food safety system, and ensures the application of internationally-recognized analytical

Regional Pest Diagnostic Training**March 2009**

A regional plant pest diagnostic training for laboratory personnel from all the CAFTA-DR countries plant health laboratories took place in Guatemala. The training included lectures on various fungi and viruses of export importance, hands-on laboratory detection methodology and finalizing of standard operating procedures. While the primary focus of the training was on Nematodes (a plant pest) other relevant priority plant pests and diseases were also addressed. The long-term goal of this activity was to expand agricultural trade by strengthening CAFTA-DR national laboratories in accurate operational and testing methods to meet U.S. and international standards.

Regional Bovine Laboratory Training**March 2009**

USDA sent a team of animal health laboratory experts to El Salvador who conducted a regional animal health laboratory training in El Salvador. This training addressed bovine serology and PCR testing on bovine diseases Brucella, Anaplasmosis Bovine Leucosis and Bluetongue. The training included participation of all CAFTA-DR countries except for Nicaragua, who could not participate. This was part of the ongoing process to improve the Animal Health Laboratories of the CAFTA-DR countries to meet international standards and achieve certification.

Central America Laboratory Training on Pesticide Residues**February 2009**

USDA conducted a workshop in San Jose, Costa Rica for technicians from national laboratories in Costa Rica, Dominican Republic, El Salvador, Guatemala and Honduras. The purpose was to improve the use of testing methodologies for detecting pesticide residues in foods. The objective of this training was to implement international standards for quality control and assurance, thereby supporting a functional food safety system.

Technical Assistance on Writing the Slaughterhouse Regulations and Filling out the Equivalence forms for FSIS**January 2009**

An FSIS expert provided technical assistance to the Government of Guatemala on writing the slaughterhouse regulations in order to meet USDA's FSIS regulations for exporting meat and meat products under Equivalence. In addition, the expert worked with GOG to help them fill out the FSIS packet to officially request Equivalence with the United States.

OIE Regulations on Regionalization and APHIS Veterinarian Accreditation System**January 2009**

An APHIS expert provided technical assistance to the Government of Guatemala on how to implement the OIE regulations on the regionalization of exotic diseases. In addition, the expert also trained government veterinarians on the official accreditation system that APHIS employs in the United States as part of an integral Animal Health System. Participation included government officials and private sector representatives. USDA's Emerging Markets Program funded the activity.

Regional Peppers and Tomatoes Quarantine Pest Diagnostics**September 2008**

Guatemalan officials participated in a regional workshop held in Honduras for all the CAFTA-DR countries on the identification and diagnosis of the ten quarantine pests that are part of the final rule for exports of peppers and tomatoes from the CAFTA-DR countries. Participants represented both government and private sector. The course took place at the Honduran Foundation for Agricultural Investigation (FHIA) so that the experience stayed in the region with local experts.

Laboratory Assessment of Progress and Planning**August 2008**

USDA/FAS led an evaluation of the National Laboratories in Nicaragua, Honduras, El Salvador, Guatemala, the Dominican Republic, Costa Rica, and Panama. The labs evaluated were in the areas of Animal Health, Pesticide Residue, and Microbiology. In addition to the evaluation, the team convened in Costa Rica to decide upon upcoming laboratory trainings for each country. Experts from the Food Safety Inspection Service, the Environmental Protection Agency and Food and Drug Administration participated in the evaluation of the labs and in the final meeting in Costa Rica. This activity was part of a long-term capacity building program aimed to strengthen the CAFTA-DR and Panama national laboratories in operational and testing methods to meet U.S. and international standards. Proficiency in these laboratories is vital to maintaining a functional food safety system, and ensures the application of internationally recognized analytical methods and tests.

Review of Guatemala's Pesticide Registration Law**August 2008**

An EPA expert traveled to Guatemala to help them review proposed Legislation for Pesticide Registration Procedures. The purpose of this activity was to meet with interested parties and discuss the status of the Guatemalan Congressional decree 37-10 which intended to amend the national pesticide registration law. Meetings included members of the Congressional Committee reviewing the proposed law, pesticide producers and the Ministry of Agriculture. A recommendation was made to discuss this regulatory proposal as part of the customs union forum, as pesticide registration requirements needed to be harmonized on a regional and CAFTA-DR basis.

Regional Microbiology Laboratory Training**July 2008**

USDA/FAS led a training in Guatemala City on quality control in food microbiological analysis and protocol for validation of microbiological methods; technicians of the national testing laboratories of Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Nicaragua, and Panama attended. This training is part of a long-term capacity building program aimed to strengthen the CAFTA-DR and Panama national laboratories in operational and testing methods to meet U.S. and international standards. Proficiency in food microbiological methods is vital in maintaining a functional food safety system, and ensures the application of internationally recognized analytical methods and tests.

Laboratory Training Animal Health**June 2008**

A team of experts was sent to Nicaragua to provide a regional training on animal health diagnostics. Laboratory technicians from all the CAFTA-DR countries that carry out this laboratory work participated. This training is part of a long-term capacity building program aimed to strengthen CAFTA-DR and national laboratories in operational and testing methods to meet U.S. and international standards. Proficiency in disease diagnostics is vital in maintaining a functional animal health system, and ensures the application of internationally recognized analytical methods and tests.

The first two days were spent on proficiency testing and lectures on the test procedures. In addition, a one-on-one session was devoted to each group to explain and discuss their proficiency results so participants would have a thorough understanding of the test and its interpretation.

The last two days were spent on poultry diagnosis covering the four main poultry diseases (Avian Influenza, New Castle disease, Infectious Laryngotracheitis, Infectious Bronchitis), Lectures on Biosecurity and Biosafety in the laboratories, samples collection and transport, preparation of reagents for use in the diagnostic testing, and the importance of serology in poultry diagnosis.

FSIS Meat Inspection**May/June 2008**

FAS sponsored training in Puerto Rico from May 19-June 6. This course was designed by FSIS to help build capacity on meat inspection at the slaughterhouse. Three participants from Guatemala attended, two from the Ministry of Agriculture and one from the Ministry of Health. The course included site visits/assessments, classroom, and practical in-plant training on: FSIS regulatory standards for meat inspection; pathogen reduction (PR)/HACCP systems; SSOP's; Good Manufacturing Practices (GMP's) for meat products; and good safety regulatory enforcement.

Regional Swine Surveillance System**May 2008**

A regional course was provided to all the CAFTA-DR countries in Guatemala. This was set up as a train-the-trainer approach and included participation from all the Ministries of Agriculture from the CAFTA-DR countries as well as presentations from APHIS, the United Nations Food and Agriculture Organization (FAO), and OIRSA. The purpose was to review all the countries' Classic Swine Fever programs and train technicians on proven practices for the eradication of the disease. The trained personnel will now continue the training to both government officials and private sector personnel in each of the CAFTA-DR countries.

Regional Pest Risk Assessment Training**April 2008**

USDA/FAS hosted a Pest-Risk Assessment workshop in San Pedro Sula, Honduras. Participants to the workshop included regulatory officials from all the CAFTA-DR countries. FAS worked closely with APHIS to develop this training, and APHIS specialists conducted the workshop. The purpose was to provide the necessary steps needed to get a new fresh product through the U.S. regulatory system. The workshop also included a site visit to laboratories in the Honduran Agricultural Research Foundation (FHIA). The workshop builds institutional strengthening at the Ministries of Agriculture to improve their procedures and increase the speed in which new fresh plant products can achieve market access to the United States. In addition, an outline of the new Q56 regulation was provided. This is the APHIS regulation that went into effect in May of 2008 that allows for an expedited pest risk assessment (PRA) procedure and allows countries to achieve market access at an accelerated rate.

Laboratory Training for Food Microbiology**March 2008**

A team of experts traveled to El Salvador to provide training in food microbiology and trained laboratory technicians from CAFTA-DR countries on advanced analytical methods. The goal of this on-going program is to ensure that commodities entering U.S. markets from CAFTA-DR countries comply with U.S. food safety regulations and also ensure that testing methods used by CAFTA-DR countries on U.S. imports are conducted accurately, using standard international procedures. USAID and the USDA Emerging Markets Program (EMP) in support of CAFTA-DR provided funding for this program.

Regional Laboratory Training for Food Microbiology**March 2008**

A team of experts traveled to Honduras to provide training in the areas of animal health and pesticide residues and trained laboratory technicians from CAFTA-DR countries on advanced analytical methods. The goal of this on-going program is to ensure that commodities entering the United States from CAFTA-DR countries comply with U.S. food safety and animal disease regulations, and also ensure that testing methods used by CAFTA-DR countries on U.S. imports are conducted accurately, using standard international procedures. Three protocols for Real Time polymerase chain reaction (PCR) were established during this training that included Newcastle, Salmonella and Avian Influenza.

Regional Plant Pest Diagnostic Training**January 2008**

USDA and the University of Florida provided technical training to national plant laboratory personnel from the CAFTA-DR countries. The training was held in the Dominican Republic and focused on fundamental practices such as quality management systems (QMS), standard operating procedures and remote diagnostics. It also included a site visit to the Dominican Institute for Agricultural and Forest Research (IDIAF). Ten diagnostic protocols written during this training are now being applied regionally.

FDA Food Labeling Requirements**January 2008**

FAS sponsored an FDA Food Labeling regulations training in Guatemala. The course focused on general labeling requirements by FDA as well as detailed information required for specific commodities including meat, poultry, processed products and cases of fresh produce. Private sector representatives currently exporting or trying to export to the United States and local government representatives for labeling issues participated. Participants reviewed the specific regulations on labeling and brought in actual product labels to be examined by the expert.

Regional Quality Management Systems for Laboratories**December 2007**

Training was provided to the Quality Control, Animal Health, and Microbiology personnel of all the CAFTA-DR countries on setting up a quality control system for their labs. The course included certification process of ISO 17025 and the documentation needed to meet ISO standards. The course also included one day at the laboratory to review Costa Rica's experience in implementing the system. The last day training covered FSIS and FDA regulations for Salmonella testing and how to properly carry out the test. Costa Rica is certified on this procedure and a visit was also conducted at their laboratory to review the procedure in a laboratory.

Laboratory Managers Training**September 2007**

This was the second of the trainings provided to the Laboratory Managers of all the CAFTA-DR countries. This training emphasized quality control, laboratory information management systems (LIMS) and review of the SSOP's that the groups had been working on. The participants included managers of animal health, plant health and food safety laboratories of both the Ministries of Agriculture and Health.

Risk Assessment Course**August 2007**

A two week course was provided in conjunction with JIFSAN and FDA on risk assessment for processed foods. This was a regional course that included all aspects of risk assessment as well as statistical exercises on establishing risk levels. FDA also reviewed the regulations that apply to food and allowable levels of residue and testing methods.

US Regulatory System**August 2007**

This was a regional course on how the US regulatory system works. It was designed to explain the different agencies that oversee the US regulatory system. Presentations were provided by FDA, APHIS (both plant health and animal health), FSIS and Customs. This course provided the directors of animal health, plant health and food safety from all the CAFTA-DR countries the opportunity to meet their counterparts in the U.S. government and begin to resolve issues directly.

Poultry Surveillance Systems Workshop**June 2007**

USDA/FAS, in coordination with APHIS and FSIS, conducted a regional workshop in Managua on poultry surveillance systems. The overall goal of this workshop was to provide regulatory and industry officials in the CAFTA-DR countries with the knowledge to be able to begin to build poultry surveillance systems that meet OIE and APHIS standards. Building these animal health systems will not only increase trade with Central America but will also, and perhaps more importantly, especially in the short-term, help to enhance agricultural biosecurity in Central America and the United States.

FSIS Meat Inspection Training in Puerto Rico**May 2007**

USDA/FAS supported a regional course that detailed a comprehensive approach to meat inspection techniques and regulations. The course, organized by FSIS on a yearly basis, is equivalent to the course required for U.S. inspectors.

Phytosanitary Principles**May 2007**

USDA/FAS, in conjunction with APHIS, organized a regional course on phytosanitary principles that included training on pest risk assessment, Q37 and Q56. In addition, the CAFTA-DR partners were trained on how the U.S. conducts its surveillance system and port inspection procedures as well as pest database management. A total of eleven APHIS representatives conducted this intense training.

Laboratory Management Course**April 2007**

USDA/FAS provided a regional training course on laboratory management. This course addressed the laboratory directors of animal health, plant health, microbiology and residue laboratories. The course included training on GLP's, LIMS, and other management techniques.

Good Dairy Sanitation Course**March 2007**

A course on good dairy sanitation was provided to Guatemalan dairy producers. This course was designed to help small producers improve the quality and safety of their milk. Experts from Utah State University provided training for three days on all aspects of milking, including a day of practice in the field. The attendants included small producers and officials from the Ministry of Health and Ministry of Agriculture.

Pre-Inspection of beef and poultry plants**January 2007**

USDA/FAS sent a retired FSIS expert to provide pre-audits of beef and poultry slaughter plants to prepare them for equivalence. The expert also helped the GoG fill out the equivalence forms sent by FSIS.

Microbiological Seminar**November 2006**

USDA/FAS sponsored a seminar on standardizing microbiological criteria to assess food safety for regional harmonization. A panel of FDA experts explained the required microbiological tests in processed food, the criteria for considering those tests, tolerance levels for bacteria (particularly E. coli regulations), and how and why FDA testing requires total counts versus CODEX testing which uses a different procedure. They also demonstrated that FDA regulations provide protection equivalent to CODEX.

Peppers and Tomatoes Pest Risk Workshop**November 2006**

USDA/FAS, in cooperation with USDA/APHIS, provided a regional training on compliance regulations for mitigating measures to export peppers and tomatoes to the United States. This regulation was established as the final rule for admissibility as part of the Pest Risk Assessment.

Biotechnology Course**September 2006**

This three-week course in Washington D.C. was organized for the members of the National Committee for Modified Organisms. This workshop detailed international standards for Genetically Modified Organisms (GMOs) and the basic scientific methodology for identification and classification of GMOs.

Avian Pathology Workshop**September 2006**

This regional workshop concentrated on proper avian health surveillance systems and diagnostics. Emphasis was put on the top four diseases (Newcastle, Avian Influenza, Laryngotracheitis, and Infectious Bursal Disease) reportable under the OIE for exportation of poultry and poultry products.

National Laboratory Assessments**August 2006**

USDA/FAS organized an assessment of the laboratories for microbiology, and animal and plant health. This assessment resulted in specific recommendations for improvement of lab standards and provided USDA with feedback on future technical assistance needs. In addition, \$1 million was provided to USDA's CAFTA-DR partners under Food for Progress to aid in the purchase of necessary laboratory equipment and supplies.

Tuberculosis and Brucellosis Technical Assistance**May 2006**

USDA/FAS organized a regional workshop on developing an animal health surveillance system and proper diagnostics of tuberculosis and brucellosis.

Port of Miami Visit**March 2006**

USDA/FAS, in cooperation with APHIS, organized a visit for plant health inspectors to the Miami Port of Entry to review APHIS inspection procedures for acceptance of plant and plant products in the United States. This cooperative experience allowed for a hands-on view of equivalent procedures to U.S. methods for detecting pests.

World Trade Organization (WTO) SPS Agreement**December 2005**

USDA and WTO personnel provided a regional training on the details of the SPS agreement as well as the rights and obligations of each country.

Hazard Analysis and Critical Control Point (HACCP) Training**October 2005**

As part of the equivalence process, HACCP principles were outlined in a workshop organized by USDA/FAS. HACCP guidelines are an integral part of USDA requirements to export meat and meat products to the United States for both processing plants and slaughterhouses.

Cochran Fellowship Program**FY2005 – FY2010**

USDA/FAS has sponsored 48 Cochran fellows from Guatemala since fiscal year 2005. The fellows participated in the following trainings: Food Regulatory Program, Forest Products Technology, Biotechnology, Establishing Microbiological Criteria for Food Safety, Produce Handling, Chef Training, Foreign Animal Disease Diagnostic, School Feeding, HACCP Practices and Policies, FSIS Meat and Poultry Inspection I, FSIS Meat and Poultry Inspection II, FSIS Meat and Poultry Inspection III, Swine Production and Management, Sausage and Meat Processing, Agricultural Biotechnology, APHIS International Course on Transboundary Animal Diseases, Biofuels, Agricultural Biotechnology, Biotechnology Regulatory Framework, Food Ingredients, Biosafety, and Food Safety.

Food Assistance

A 2008 Food for Progress agreement with Texas A&M. Programming valued at \$10 million helps farmers obtain better yields through improved production techniques. Farmers sell their products in local and foreign markets; use less chemical fertilizers and more organic fertilizers. Also, greenhouses, irrigation systems, composting units and a food processing center were established in rural communities; and farmers have increased their knowledge about pest management, plant disease management, and food safety. Additional food processing centers and crop production facilities are being established and new markets identified for agricultural products.

2010 Food aid valued at \$3.2 million will be monetized to support: Universidad del Valle de Guatemala's Administration, Agricultural Trade Capacity Building, and Trainings (Teachers, Leadership, Farmer, and Youth)

A 2008 Food for Education Program, valued at \$24.92 million, awarded to Association SHARE de Guatemala. Activities include school feeding; take home rations, school gardens, and capacity building.

A 2010 Food for Education Program valued at \$5.73 million, awarded to Project Concern International (PCI). Terms and conditions of agreement are currently being negotiated. Activities include school feeding, health and nutrition education, teacher training, and water and sanitation improvements.

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Honduras SPS Capacity Building Report

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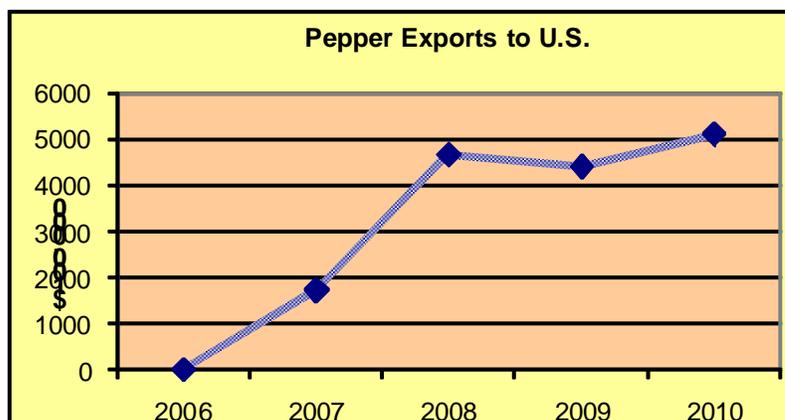
Summary

The US Department of Agriculture's (USDA) Foreign Agricultural Service (FAS), with funding from the US Agency for International Development (USAID), has worked closely with the government of Honduras since the signing of CAFTA-DR in 2005 to provide prioritized technical assistance for both the public sector and private industry. These activities have been part of sanitary and phytosanitary (SPS) trade capacity building efforts in Honduras which are currently in progress to improve Honduras' agricultural trade in the international marketplace (activity details can be found in Appendix A). To date, 915 people from both the public and private sector have been trained and over 213 firms have benefited from technical assistance since 2005.

The Program has contributed to significant impact, including:

- As a result of specific technical assistance provided during Central American Custom Union meetings, Honduras, along with other Central American countries, passed a Harmonized Regulation on Microbiological Residue Standards for Food. The new regulation standardizes maximum residue levels for over 95 percent of microbiological pathogens. This will provide the Honduran food industry with a solid regulatory framework from which to export foods that meet international standards.
- After capacity building targeting deficiencies in Honduran meat processing plants, Honduras has recovered equivalence and two plants are now eligible to export meat to the United States. The Government of Honduras and industry expect impact to be \$5-10 million a year of exports.
- Good laboratory practices and diagnostic methodology training has helped Honduras' National Residue Laboratory (LANAR) achieve ISO 17025 Certification.
- After a Good Agricultural Practices (GAP's) training and implementing expert recommendations, Honduras is once again authorized to export melons to the United States. The economic effect reached \$33.5 million for the 2009 season. Honduras exported \$32.3 million of melons between October 1, 2009 and June 30, 2010.
- Capacity building regarding USDA Food Safety Inspection Service (FSIS) standards and regulations helped Honduran meat processing plants recover equivalence in 2006 and 2010 and has led to two beef plants exporting to the United States and one poultry plant exporting to Asia. U.S. imports of meat products from Honduras have increased about 44 percent since the beginning of 2008.
- Capacity building directed at dairy processing has increased the number of plants approved to export to the U.S. from 2 plants in 2005 to 8 plants exporting in 2010. US imports of dairy products from Honduras have increased an average of 62% from 2005 to 2010.

- SPS capacity building has helped Honduran organizations meet USDA Animal and Plant Health Inspection Service (APHIS) mitigating measures required for exporting peppers and tomatoes to the United States. This has resulted in imports by the United States of over \$14.1 million fresh peppers since 2007.



- Honduras has joined with other CAFTA-DR countries to form a working group to harmonize laboratory procedures and standardize testing methods. With help from U.S. experts, over 15 diagnostic protocols have been harmonized that meet internationally accepted standards.
- The Honduran animal health laboratory has been able to successfully diagnose Exotic Newcastle disease using Real Time **polymerase chain reaction** (PCR) and is using that result as a reference for the entire region.
- Honduras has passed laws that recognize the U.S. meat and poultry inspection system as “Equivalent”; this was a pre-condition for CAFTA-DR implementation.

Institutions that received Targeted Capacity Building Activities

Ministry of Agriculture Animal Health Division
 Ministry of Agriculture Plant Health Division
 Ministry of Agriculture Food Safety Division
 National Laboratory on Animal Health
 National Laboratory on Plant Health
 Ministry of Health Laboratory
 Kobs Dairy
 Jutiquele Dairy
 El boqueron Dairy
 CADECA poultry plant
 Continental beef plant in Honduras
 Sula Dairy
 Prolaca Dairy
 Lacteos Maria Isabel Dairy
 Las delicias Dairy
 LANAR Laboratory
 La Casita Dairy
 Empacadora C & D
 Melonera Monte Libano
 FHIA

Laws Passed with US Technical Assistance

1. Law creating the mechanism for Equivalence 2006
2. Law Granting the US Meat System Equivalence 2006
3. Law creating the requirement of HACCP for slaughterhouse 2006
4. New Law on Poultry Inspection Requirements 2007

Moving Forward

In the summer of 2010, Honduran officials completed a survey indicating their opinions regarding the state of completion of some primary aspects of different SPS systems, (detailed data can be found in Appendix B of this report). USDA experts used the data collected from this survey to evaluate specific gaps in each system and develop recommendations for moving forward. Below are those recommendations.

Animal Health

- **Establish a National Indemnity Program** and guarantee funding for such a program in order to provide the incentives for people to report suspected cases of disease and pay producers for animals taken by the State. Such a program should specifically earmark funds for an initial 2 week period of a national emergency should there occur a Foreign Animal Disease (FAD) outbreak.
- **Allocate sufficient funds to maintain adequate staffing and resources** for a viable animal health system that includes a quality surveillance system of all animal diseases. Adequate funds and well-trained staff ensure the quality of all the components of an animal health and surveillance system.
- **Establish a functional National Surveillance System** to ensure animal diseases are properly controlled and/or eradicated. Such a system is also needed to guarantee that a country is indeed free of a particular disease as required by the “Rationalization and Rulemaking Process” of the United States. This is a very complex system involving many assets such as trained personnel, vehicles and other equipment, diagnostic laboratories, cooperation with industry and the population as a whole, etc.
- **Implement a National Veterinary Accreditation Program.** Such a program is necessary in order to have an adequate number of well-trained veterinarians to provide day-to-day services to livestock farmers in the country as well as provide immediate responses to national outbreaks of disease.
- **Establish a national animal identification program** within the public sector. This will help ensure viable animal health control and eradication programs to function properly and ensure traceability of diseased animals.

Food Safety

- **Update/strengthen the current pesticide regulations** to be harmonized CAFTA-DR (CACU) regulations.
- **Strengthen/improve the enforcement and compliance programs for pesticide post-registration activities** (GAPs, safe-use, container disposal, etc.).
- **Increase government oversight in the review and testing of the pasteurization systems** of plants exporting to the United States. Currently some exporting plants’ pasteurization systems are not properly functioning.
- **Collaborate with the U.S. Food and Drug Administration (FDA) to identify a heat treated, non-pasteurized cheese product that is compliant with FDA requirements** for fresh cheese exports. This would result in fewer issues of non-compliance with U.S. pasteurization requirements.
- **Develop a national food safety pesticide maximum residue level (MRL) program** that includes a national pesticide MRL monitoring program to improve government oversight.

- **Continue to improve the analytical performance of LANAR** (pesticide residue laboratory). Expand the number of pesticide residues (analyses) that can be screened for in food samples.
- **Develop a national food safety (pesticide MRL) program.**

Laboratories

- **Allocate adequate funds and hire well-trained staff for all laboratories.** The national laboratories currently charges for diagnostic services; however earned income from fees does not always remain in the budget. These funds should be used to maintain adequate supplies, buy new equipment, and hire and keep highly trained personnel.

**Honduras
SPS Capacity Building Activities
2005-2011**

Country	Participants	Public Sector	Private Sector	Female	Firms
Honduras	915	599	316	297	213

Reviews of Codex MRLs

May 2011

FAS collaborated with the United Nation’s Food and Agriculture Organization (FAO) to identify and train experts from the Latin America region on pesticide residue evaluations to establish Codex MRLs. The objective of the training is to increase the number of technical experts who can serve on FAO’s technical review committee for establishing MRLs, and therefore increase the number of Codex MRLs established annually. Additionally, a collaborative program between FAS and the Latin American countries will be proposed to generate residue data and establish MRLs for targeted specialty crops. This project was support USDA trade initiatives by establishing international pesticide trade standards for U.S. specialty crops. This program is funded by the Emerging Markets Program of USDA.

Laboratory Training Animal Health

May 2011

An expert was sent to San Pedro Sula, Honduras to provide training on animal health diagnostics. Laboratory technicians from SENASA and the private sector attended. This training is part of a long-term capacity building program aimed to strengthen CAFTA-DR and national laboratories in operational and testing methods to meet U.S. and international standards. Proficiency in disease diagnostics is vital in maintaining a functional animal health system, and ensures the application of internationally recognized analytical methods and tests. This training emphasized diagnosis covering the four main poultry diseases (Avian Influenza, New Castle disease, Infectious Laryngotracheitis, Infectious Bronchitis), Lectures on Biosecurity and Biosafety in the laboratories, samples collection and transport, preparation of reagents for use in the diagnostic testing, and the importance of serology in poultry diagnosis.

Food Safety Directors Meeting

April 2011

A 3-day regional meeting was conducted in El Salvador with the participation of Food Safety Directors from all Central America Countries to review the recently passed Central American Microbiological Standards for Food. Participants included Food Directors from both Ministry of Health and Ministry of Agriculture. The purpose of this meeting was to reevaluate some standards that were set by the Ministry of Health that were not consistent with internationally accepted standards. In addition, the Ministries of Agriculture were not included in the creation of this new regulation and this meeting was to provide both working groups the opportunity to work together on the revised legislation. This activity was organized by OIRSA though funds provided by USDA for continued work on harmonizing Central American food safety standards. OIRSA also contribute its own funds to cover venue, translation, transportation and coffee breaks.

Microbiology Laboratory training on E. coli 0:157:H7 and Salmonella

March 2011

FAS provided a specialized training to participants from Guatemala, Honduras, and El Salvador to improve the use of testing methodologies for detecting E. coli and salmonella in foods and the implementation of international standards for quality control and assurance. On-site laboratory training was conducted in Honduras. Support for this activity is part of a long-term capacity building program aimed to strengthen the CAFTA-DR national laboratories in operational and testing methods to meet U.S. and international standards. Training was conducted on both USDA and FDA methods to meet both regulatory agencies. Trainers included an expert in FSIS methodologies and two FDA employees.

Progress Review of National Poultry Surveillance System**February 2011**

A technical expert visited Honduras, as follow up to a review of Honduras' National Poultry Surveillance System. This continued technical assistance was carried out to help determine the progress made and identify the remaining requirements for equivalence and international export certification. The Honduran Poultry Industry has provided half a million dollars for a new poultry laboratory, which is also serving as the official reference laboratory for exotic new castle disease (END) in Central America. The ministry has also dedicated staff and resources towards this effort. During this trip the expert found that advances in the surveillance system and the laboratory were achieved. He also prepared a report that establishes a time line of intervention that if met could have the country ready for and official inspection in less than a year.

Meat Plant Audit Techniques, Anti-Mortem and Post-Mortem Training**February 2011**

A retired veterinary inspector from FSIS and an expert in HACCP from the Inter-American Institute for Cooperation on Agriculture (IICA) and provided training on Meat Plant Audit Techniques, HACCP, post-mortem and anti-mortem techniques for government inspectors and meat producers in San Pedro Sula, Honduras. The goal of this activity was to assist in the clarification and understanding how to carry out an official audit of a meat plant to meet FSIS regulations. This activity was carried out to better prepare both the private sector and the official inspectors on what to expect on official FSIS inspections so as to prevent Honduras from losing equivalency again for export of boneless beef to the United States.

Evaluation of National Animal Health Laboratories**February 2011**

A technical expert visited Honduras to conduct an exit evaluation of the National Animal Health laboratory's current status, evaluate progress made since the inception of the CAFTA-DR project, and identify remaining technical assistance gaps as well as progress achieved after 5 years of technical assistance.

Technical Assistance for Trips Palmi**September 2010**

FAS provided an Agricultural Research Service (ARS) expert to Honduras and Dominican Republic to help them identify ways to eradicate the pest Trips Palmi. This pest is starting to show up more often in fresh produce containers exported from CAFTA-DR countries. This is a quarantine pest. No product that is found to have trips palmi can enter the United States. This is a follow-up from the training provided in Honduras in July and carried out in collaboration with *El Organismo Internacional Regional de Sanidad Agropecuaria* (OIRSA).

Technical Assistance on FSIS Standards and Regulations for Meat Equivalency**August 2010**

USDA/FAS conducted pre-audits of two meat plants and labs in Honduras seeking re-certification with the U.S. Food Safety Inspection Service (FSIS). A retired FSIS veterinary inspector examined meat processing facilities, laboratories and met with government food regulatory officials to review Honduras' food safety inspection system. This activity allowed Honduras to re-establish its Equivalence with the United States. It is now eligible to export meat and meat products to the United States with an estimated economic impact of approximately \$10 million a year according to the GOH and the two plants.

Regional Good Laboratory Practices for Pesticide Residue Laboratories**August 2010**

USDA/FAS, in collaboration with the Office of Enforcement and Compliance Assurance, Environmental Protection Agency (EPA), and Rutgers University's Interregional Research Project Number 4 (IR-4), trained pesticide technicians in good laboratory practices (GLP) in San Jose, Costa Rica. The training was conducted in cooperation with the University of Costa Rica. Compliance with EPA's GLP standards ensures the quality and integrity of laboratory test data which is submitted in support of pesticide product registrations. This activity was jointly funded by USAID and USDA EMP funds and included participation from 19 Latin American countries, including the Dominican Republic.

Regional Zebra Chip and Trips Palmi Training in Honduras**August 2010**

USDA/FAS sent partners from the Agricultural Research Service (USDA/ARS) and the University of Florida, to provide technical information on preventing Trips Palma and Zebra Chip Plant Pests in crops to a regional workshop hosted by OIRSA. The *Organismo Internacional Regional de Sanidad Agropecuario* (OIRSA), a regional plant and animal protection organization, sponsored the workshops to increase the strength of pest prevention in the CAFTA/DR region. Program participants, representing countries including Panama, Dominican Republic and Belize, were funded by OIRSA, while USDA provided expenses for the experts.

Residue Laboratory Training in Honduras**June 2010**

FAS led a pesticide residue laboratory technical assistance for LANAR technicians in Tegucigalpa, Honduras. Residue experts from the U.S. Food and Drug Administration (FDA), the Environmental Protection Agency (EPA) conducted the training on residue analysis and laboratory accreditation. It was also the first training provided to Honduras since the political situation prevented any activities from being carried out. This activity is part of a long-term capacity building program aimed to strengthen the Central American national laboratories in operational and testing methods to meet U.S. and international standards. Proficiency in these laboratories is vital to maintaining a functional food safety system, and ensures the application of internationally recognized analytical methods and tests.

Pesticide Registration Guidance**October 2009**

USDA/FAS collaborated with the United Nations Food and Agriculture Organization (FAO) on harmonizing pesticide registration procedures for Central American countries in Panama City, Panama. Workshop topics included current regional harmonization efforts; trainers identified specific obstacles Central American countries face regarding harmonization, review of current registration legislation in each country, and guidance to harmonize legislation across the region. This will benefit two-way trade of agricultural products by establishing common pesticide standards within Central America, reducing the likelihood that exports violate pesticide residue standard of individual countries.

Maximum Residue Level's (MRL) Specialty Crop Seminar on Pesticides**August 2009**

USDA, in coordination with the Food and Agriculture Office of the United Nations, held a regional workshop in San Jose, Costa Rica to address the harmonization of pesticide maximum residue levels (MRLs). Workshop topics included international harmonization efforts, identifying specific obstacles Central American countries face regarding MRL's, discussing how to better coordinate various efforts, and providing recommendation on how countries can better engage and benefit from Codex and other international systems.

Regional Pesticides Residues Training, Costa Rica,**July 2009**

USDA, in collaboration with the Environmental Protection Agency's (EPA) Office of Enforcement and Compliance Assurance, trained laboratory officials on good laboratory practices (GLP). Compliance with EPA's GLP standards ensures the quality and integrity of laboratory test data which is submitted in support of pesticide product registrations. The training was conducted at the pesticide analytical laboratory of the University of Costa Rica, which is currently the only pesticide laboratory in the CAFTA-DR region accredited internationally under International Organization for Standardization (ISO) regulation 17025. This activity is part of a long-term capacity building program aimed to strengthen the Central American Free Trade Agreement-Dominican Republic (CAFTA-DR) national laboratories in operational and testing methods to meet U.S. and international standards.

Regional Low Acid Canned Foods Training in El Salvador**June 2009**

USDA organized a regional training on LAFC by teaching the Better Process Control School (BPCS) course in San Salvador, El Salvador. Currently, the Food and Drug Administration (FDA) regulations require all exporters of canned foods to have one supervisor on the premises whenever the processing plant is operating. This operating supervisor must have successfully completed a school approved by the FDA. The most common method of compliance is to hold the official BPCS certification. This training built capacity of the industry to implement improvements to the food safety management systems and of inspection officials to provide adequate oversight and verification of those systems. This activity was hosted in conjunction with COEXPORT with funding from IDB AgroCAFTA project.

Honduras Poultry Disease Pre-Audit Follow up**May 2009**

USDA sent a technical expert to Honduras to continue to provide guidance on the Honduran poultry surveillance system and assist Honduran preparations for an official APHIS audit. The audit includes the use of quality-controlled, standard laboratory practices, while strengthening overall poultry health surveillance efforts.

This visit is a follow-up of prior visits to see the progress and to help Ministry of Agriculture develop a plan to overcome the deficiencies. This plan was prepared with collaboration by the government and private sectors with the help of the technical expert, and will cost an estimated \$1.5 million. It demonstrated how such an investment could help the country reach export status with the U.S. and create about 13,000 new jobs. To generate support and funding, the Ministry of Agriculture and the U.S. Embassy later presented this proposal to the President of Honduras.

Laboratory Animal Disease Training in Poultry Diseases**May 2009**

USDA sent a team of animal health laboratory experts to provide specific training on poultry disease on the following topics: bio-security; vaccination; pathogens and serology testing; and disease diagnosis. Honduras is in the final phase of the equivalence process with the U.S. on poultry and its ability to properly diagnose these diseases is part of the Animal Health audit that is carried out by APHIS to declare the country free of diseases. This training was to provide Honduras the necessary knowledge on approved procedures to pass the audit.

Regional Microbiological Laboratory Methods Training in Nicaragua**April 2009**

USDA, in cooperation with Texas A & M University, conducted a regional workshop on proper laboratory techniques for testing microbiological samples for salmonella. The training focused specifically on testing for salmonella in poultry products, vegetables and dairy products. Participation included Laboratory personnel from the national laboratories of Guatemala, Costa Rica, El Salvador, Honduras, Nicaragua, and the Dominican Republic. The training provided attendees with the technical knowledge necessary to test for food borne microbiological hazards, to provide safer food and to facilitate trade between the Central American nations and the United States. The techniques taught include both FSIS and FDA approved methods.

Pre-Audit Activity in Honduras**March 2009**

From March 23-26, the USDA conducted a pre-audit of a poultry plant in Honduras (CADECA) that is seeking equivalence with the U.S. The direct focus of this activity was to prepare them for the final official audit scheduled by FSIS at the end of April 2009. This is the last of many technical assistance visits that have been made to this plant since 2005 in preparation of Honduras achieving "Equivalence" for poultry with the U.S. and thus having market access to export fresh and processed poultry meat and products to the U.S. If the plant passes the official inspection by FSIS in late April, the U.S. will start the "Final Rule" process in which a regulation is written in the Federal Code of Regulations that would allow Honduras market access. This process takes at least one year. Honduras would also have to be certified by APHIS to be free of Exotic Newcastle Disease prior to exporting their first container.

Regional Pest Diagnostic Training**March 2009**

A regional plant pest diagnostic training for laboratory personnel from all the CAFTA-DR countries plant health laboratories took place in Guatemala. The training included lectures on various fungi and viruses of export importance, hands-on laboratory detection methodology and finalizing of standard operating procedures. While the primary focus of the training was on Nematodes (a plant pest) other relevant priority plant pests and diseases were also addressed. The long-term goal of this activity is to expand agricultural trade by strengthening CAFTA-DR national laboratories in accurate operational and testing methods to meet U.S. and international standards.

Regional Bovine Laboratory Training**March 2009**

USDA sent a team of animal health laboratory experts to El Salvador who conducted a regional animal health laboratory training in El Salvador. This training addressed bovine serology and PCR testing on bovine diseases Brucella, Anaplasmosis Bovine Leucosis and Bluetongue. The training included participation of all CAFTA-DR countries except for Nicaragua, who could not participate. This is part of the ongoing process to improve the Animal Health Laboratories of the CAFTA-DR countries to meet international standards and achieve certification.

Pesticide Registration Training in Honduras**February 2009**

USDA/FAS sent an EPA expert to Honduras to help pesticide regulators in the process for registering new pesticides. The EPA official met with the Ministry officials working on the creation of these regulations, as well as with private sector representatives to discuss EPA's procedures. This technical assistance will help Honduras create internationally accepted regulations on pesticide registration procedures and maximum residue level standards.

Central America Laboratory Training on Pesticide Residues**February 2009**

USDA conducted a workshop in San Jose, Costa Rica for technicians from national laboratories in Costa Rica, Dominican Republic, El Salvador, Guatemala and Honduras. The purpose was to improve the use of testing methodologies for detecting pesticide residues in foods. The objective of this training is to implement international standards for quality control and assurance, thereby supporting a functional food safety system.

Training on new Food Safety Inspection Service-mandated E.Coli testing methods in Costa Rica**December 2008**

USDA provided training to Honduras diagnostic laboratory LANAR on new Food Safety Inspection Service (FSIS)-mandated E.Coli testing procedures. Dr. Javier Castro, a microbiologist from Texas A&M University, conducted the training, which included proper equipment, procedures, and requirements for a new method to test for E.Coli in meat. Implementation of the new FSIS testing procedures is required in order to maintain equivalency status for trade in meat products with the United States. The method also included that a sample strain was needed as part of the method and Dr. Castro was able to verify with a specific kit that said strain was correct.

Dairy Plant Evaluation in Honduras**December 2008**

USDA coordinated experts' visits to major dairy plants in Honduras to follow up on lessons learned in previous trainings, answer plant-specific questions, and provide details on the next steps for each plant in achieving international standards in dairy sanitation. Plants were selected based on several factors, including: attendance at the previous dairy processing training, their potential for implementing suggested changes, ability to export products, and ability to influence or teach other plants in the region to also follow international standards on dairy sanitation. Of the eight plants visited, the most common problem was failure to meet U.S. regulations on pasteurization. This is a persistent issue in the other countries too, because pasteurization changes the flavor and texture of the "quesillo", the exported type of cheese. Pasteurization does occur on other products as the plants have adopted the techniques taught in previous courses. The team of experts will conduct tests on how to meet FDA regulations on heat treatment without affecting the flavor or texture. They expect, however, that labels will need to be changed to "processed cheese food", one of the few category labels that are allowed by FDA to forego pasteurization.

Poultry Health Surveillance System Evaluation***December 2008***

A technical expert visited Honduras as follow-up to a review of Honduras' poultry surveillance system conducted in March 2000 to assess the status, identify needs, host targeted training, and provide recommendations for improvements. This follow-up trip helped determine the progress made and offered additional technical assistance. The expert concluded that Honduras was close to being prepared for equivalence and certification as conducted by international entities and APHIS. Once Honduras' surveillance system is recognized by APHIS as adequate and free of Exotic Newcastle disease, the country will be able to export raw poultry to the U.S.

Mediterranean Fruit Fly Identification***October 2008***

USDA sent an APHIS specialist to Honduras to teach participants how to identify the Mediterranean fruit fly. OIRSA and the Zamorano Agricultural School in Honduras created this integrated pest management course. The purpose of the course was to provide government officials, OIRSA officials and university professors a full week of training on pest management. The course gave participants hands-on experience identifying these pests and the procedures available for their control and eradication.

Regional Peppers and Tomatoes Quarantine Pest Diagnostics***September 2008***

Honduran officials participated in a regional workshop held in Honduras for all the CAFTA-DR countries on the identification and diagnosis of the ten quarantine pests that are part of the final rule for exports of peppers and tomatoes from the CAFTA-DR countries. Participants represented both government and private sector. The course took place at the Honduran Foundation for Agricultural Investigation (FHIA) so that the experience stays in the region with local experts.

Laboratory Assessment of Progress and Planning***August 2008***

USDA/FAS led an evaluation of the National Laboratories in Nicaragua, Honduras, El Salvador, Guatemala, the Dominican Republic, Costa Rica, and Panama. The labs evaluated were in the areas of Animal Health, Pesticide Residue, and Microbiology. In addition to the evaluation, the team convened in Costa Rica to decide upon upcoming laboratory trainings for each country. Experts from the Food Safety Inspection Service, the Environmental Protection Agency and Food and Drug Administration participated in the evaluation of the labs and in the final meeting in Costa Rica. This activity is part of a long-term capacity building program aimed to strengthen the CAFTA-DR and Panama national laboratories in operational and testing methods to meet U.S. and international standards. Proficiency in these laboratories is vital to maintaining a functional food safety system, and ensures the application of internationally recognized analytical methods and tests.

Good Agricultural Practices Training in Honduras***August 2008***

From August 18-22, the U.S. Department of Agriculture trained roughly 80 fruit and vegetable producers and processors from the private and public sectors on Good Agricultural Practices (GAPs). Honduran food safety officials requested assistance to address recent pathogen problems associated with exports. In response to the request, USDA worked with the Joint Institute for Food Safety and Applied Nutrition (JIFSAN), a Food and Drug Administration (FDA) partnership with the University of Maryland, to provide hands-on training workshop in GAPs. The training provided Hondurans with an adaptable framework of currently available pest practices to reduce microbial food safety risks.

Regional Microbiology Laboratory Training***July 2008***

USDA/FAS led a training in Guatemala City on quality control in food microbiological analysis and protocol for validation of microbiological methods; technicians of the national testing laboratories of Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Nicaragua, and Panama attended. This training is part of a long-term capacity building program aimed to strengthen the CAFTA-DR and Panama national laboratories in operational and testing methods to meet U.S. and international standards. Proficiency in food microbiological methods is vital in maintaining a functional food safety system, and ensures the application of internationally recognized analytical methods and tests.

Laboratory Training Animal Health**June 2008**

A team of experts was sent to Nicaragua to provide a regional training on animal health diagnostics. Laboratory technicians from all the CAFTA-DR countries that carry out this laboratory work participated. This training is part of a long-term capacity building program aimed to strengthen CAFTA-DR and national laboratories in operational and testing methods to meet U.S. and international standards. Proficiency in disease diagnostics is vital in maintaining a functional animal health system, and ensures the application of internationally recognized analytical methods and tests.

The first two days were spent on proficiency testing and lectures on the test procedures. In addition, a one-on-one session was devoted to each group to explain and discuss their proficiency results so participants have a thorough understanding of the test and its interpretation.

The last two days were spent on Poultry diagnosis covering the four main poultry diseases (Avian Influenza, New Castle disease, Infectious Laryngotracheitis, Infectious Bronchitis), Lectures on Biosecurity and Biosafety in the laboratories, samples collection and transport, preparation of reagents for use in the diagnostic testing, and the importance of serology in poultry diagnosis.

Good Dairy Processing Practices**May 2008**

USDA organized training on FDA food safety requirements for dairy processing in Honduras. This course was provided information on FDA requirements for Good Manufacturing Practices (GMP's), HACCP, and Pasteurization in advance of the FDA inspections of Honduran facilities, scheduled to occur in June 2008. The training builds capacity of the industry to implement improvements to the food safety management systems and of inspection officials to provide adequate oversight and verification of those systems. Comments from Ministry Officials after the FDA audits were very positive and increased the amount of plants that are eligible for export.

Regional Swine Surveillance System**May 2008**

A regional course was provided to all the CAFTA-DR countries in Guatemala. This was set up as a train-the-trainer approach and included participation from all the Ministries of Agriculture from the CAFTA-DR countries as well as presentations from APHIS, FAO, and OIRSA. The purpose was to review all the countries' Classic Swine Fever programs and train technicians on proven practices for the eradication of the disease. The trained personnel will now continue the training to both government officials and private sector personnel in each of the CAFTA-DR countries.

FSIS Meat Inspection**May 2008**

This course is designed by FSIS to help build capacity on meat inspection at the slaughterhouse. The course included site visits/assessments, classroom, and practical in-plant training on: FSIS regulatory standards for meat inspection; pathogen reduction/Hazard Analysis and Critical Control Point (PR/HACCP) systems; Standard Sanitation Operating Procedures (SSOP's); Good Manufacturing Practices (GMP's) for meat product; and good safety regulatory enforcement.

Regional Plant Pest Diagnostic Training**January 2008**

USDA and the University of Florida provided technical training to national plant laboratory personnel from the Central American and Dominican Free Trade Agreement (CAFTA-DR) countries. The training was held in the Dominican Republic and focused on fundamental practices such as quality management systems (QMS), standard operating procedures and remote diagnostics. It also included a site visit to the Dominican Institute for Agricultural and Forest Research (IDIAF). Ten diagnostic protocols written during this training are now being applied regionally.

Laboratory Training for Food Microbiology**March 2008**

A team of experts traveled to El Salvador to provide training in food microbiology and trained laboratory technicians from CAFTA-DR countries on advanced analytical methods. The goal of this on-going program is to ensure that commodities entering U.S. markets from CAFTA-DR countries comply with U.S. food safety regulations and also ensure that testing methods used by CAFTA-DR countries on U.S. imports are conducted accurately, using standard international procedures. USDA's Emerging Markets Program provided partial support of CAFTA-DR.

Pre-audit equivalence inspection of the Poultry Surveillance***March 2008***

A pre-audit of Honduras' poultry surveillance system was performed and focused on poultry surveillance at the farm level to establish that the country is free of Exotic Newcastle Disease. This is a pre-condition to export raw poultry to the U.S. At the end of the visit, industry and government, in cooperation with the expert, wrote an action plan that could allow Honduras to export raw poultry to the U.S. within two years. Participants included poultry inspectors from the Ministry of Agriculture and members of the Honduran poultry industry.

Laboratory Training in Animal Health and Pesticide Residues***March 2008***

A team of experts traveled to Honduras to provide training in the areas of animal health and pesticide residues and trained laboratory technicians from CAFTA-DR countries on advanced analytical methods. The goal of this on-going program is to ensure that commodities entering U.S. markets from CAFTA-DR countries comply with U.S. food safety and animal disease regulations, and that testing methods used by CAFTA-DR countries on U.S. imports are conducted accurately, using standard international procedures. Three protocols for Real Time PCR were established during this training that included Newcastle, Salmonella and Avian Influenza. USDA's Emerging Markets Program provided partial support of CAFTA-DR.

***EPA Participates in Central America Regional meeting
Pesticide Tolerance and Registration******February 2008***

USDA in collaboration with the U.S. Environmental Protection Agency (EPA) sent a pesticide expert from EPA to the a regional customs union meeting on Pesticide Registration and Tolerance standards for the Central American Region held in El Salvador. The purpose of this technical assistance was to help the Central Americans harmonize their regulations on Residue Levels and Registration Standards. The EPA official also met with government officials and discussed the current situation of pesticide registration and levels in Central America and U.S. requirements for exports.

Regional Plant Pest Diagnostic Training***January 2008***

USDA and the University of Florida provided technical training to national plant laboratory personnel from the Central American and Dominican Free Trade Agreement (CAFTA-DR) countries. The training was held in the Dominican Republic and focused on fundamental practices such as quality management systems (QMS), standard operating procedures and remote diagnostics. It also included a site visit to the Dominican Institute for Agricultural and Forest Research (IDIAF). Ten diagnostic protocols written during this training are now being applied regionally.

Slaughterhouse Pre-audit Equivalence Inspection***January 2008***

A pre-audit of a Honduras poultry plant and beef plant was performed and technical assistance provided on proper slaughterhouse inspection techniques. The technical assistance, conducted in cooperation with FSIS, focused on details of proper and equivalent poultry line inspection techniques and methods, as well as bovine carcass inspection. The poultry plant visited was the prime candidate for export to the United States. The beef plant visited is already exporting to the U.S., but was scheduled for an official audit by FSIS in February. Discussion of the plant's deficiencies and ways to address them will help facilitate equivalence certification by FSIS and allow existing plants to continue to comply with U.S. regulations. Participants included inspectors from the Ministries of Agriculture and Health in Honduras as well as key private sector stakeholders in the poultry and meat industries.

Regional Quality Management Systems for Laboratories***December 2007***

Training was provided to the Quality Control, Animal Health, and Microbiology personnel of all the CAFTA-DR countries on setting up a quality control system for their labs. The course included certification process of ISO 17025 and the documentation needed to meet ISO standards. The course also included one day at the lab to review Costa Rica's experience in implementing the system. The last day training covered FSIS and FDA regulations for Salmonella testing and how to properly carry out the test. Costa Rica is certified on this procedure and a visit was also conducted at their laboratory to review the procedure in a laboratory.

FDA Food Labeling Requirements**October 2007**

FAS sponsored an FDA Food Labeling regulations training in San Pedro Sula, Honduras. The course focused on general labeling requirements by FDA as well as detailed information required for specific commodities including meat, poultry, processed products and cases of fresh produce. The participants were a combination of private sector representatives currently exporting or trying to export to the United States, and local government representatives for labeling issues. The first two days provided review of the specific regulations on labeling, while the third day offered hands-on learning as participants brought in actual product labels to be examined by the expert.

Laboratory Managers Training**September 2007**

This was the second of the trainings provided to the Laboratory Managers of all the CAFTA-DR countries. This training emphasized quality control, LIMS and review of the SSOP's that the groups had been working on. The participants included managers of animal health, plant health and food safety laboratories of both the Ministries of Agriculture and Health.

Risk Assessment Course**August 2007**

A two week course was provided in conjunction with JIFSAN and FDA on risk assessment for processed foods. This was a regional course that included all aspects of risk assessment as well as statistical exercises on establishing risk levels. FDA also reviewed the regulations that apply to food and allowable levels of residue and testing methods.

US Regulatory System**August 2007**

This was a regional course on how the US regulatory system works. It was designed to explain the different agencies that oversee the US regulatory system. Presentations were provided by FDA, APHIS (both plant health and animal health), FSIS and Customs. This course provided the directors of animal health, plant health and food safety from all the CAFTA-DR countries the opportunity to meet their counterparts in the US government and begin to resolve issues directly.

Poultry Surveillance Systems Workshop**June 2007**

USDA/FAS, in coordination with APHIS and FSIS, conducted a regional workshop in Managua on poultry surveillance systems. The overall goal of this workshop was to provide regulatory and industry officials in the CAFTA-DR countries with the knowledge to be able to begin to build poultry surveillance systems that meet OIE and APHIS standards. Building these animal health systems will not only increase trade with Central America but also and perhaps more importantly, especially in the short-term, help to enhance agricultural biosecurity in Central America and the United States.

Ports & Containers Inspection**June 2007**

USDA/FAS, in cooperation with APHIS, conducted a regional training on regulations and inspection techniques governing the importation of plants and plant products to the U.S. in order to reduce the number of shipments from DR-CAFTA countries detained at U.S. ports of entry for phytosanitary infractions.

Phytosanitary Principles**May 2007**

USDA/FAS, in conjunction with APHIS, organized a regional course on phytosanitary principles that included training on pest risk assessment, Q37 and Q56. The CAFTA partners were trained on how the U.S. conducts its surveillance system and port inspection procedures as well as pest database management. A total of eleven APHIS representatives conducted this intense training.

Laboratory Management Course**April 2007**

USDA/FAS provided a regional training course on laboratory management. This course addressed the lab directors of animal health, plant health, microbiology and residue laboratories. The course included training on Good Laboratory Practices (GLP's), Laboratory Information Systems (LIMS), and other management techniques.

Good Dairy Sanitation Course**March 2007**

A course on good dairy sanitation was provided to Honduran dairy producers. This course was designed to help small producers improve the quality and safety of their milk. Experts from Utah State University provided training for three days on all aspects of milking, including a day of practice in the field. The attendants included small producers and officials from the Ministry of Health and Ministry of Agriculture.

Poultry Inspection Techniques**December 2006**

This training addressed proper inspection techniques for slaughterhouses with an emphasis on line-inspections. Specific topics covered include line speed, microbiological testing, chiller operation, carcass temperatures, pest control, and additional relevant USDA regulations.

Peppers and Tomatoes Pest Risk Workshop**November 2006**

USDA/FAS, in cooperation with USDA/APHIS, provided a regional training on compliance regulations for mitigating measures to export peppers and tomatoes to the U.S. This regulation was established as the final rule for admissibility as part of the Pest Risk Assessment.

Poultry Surveillance Systems Assessment**November 2006**

USDA/FAS, in cooperation with the Honduran Government provided a baseline assessment of the public poultry inspection system as well as poultry slaughter plants in Honduras. The Avian Pathology training and Poultry Inspection Techniques Workshop were follow-on activities to this assessment.

Biotechnology Course**September 2006**

This three-week course in Washington D.C. was organized for the members of the National Committee for Modified Organisms. This workshop detailed international standards for genetically modified organisms (GMO's) and the basic scientific methodology for identification and classification of GMOs.

Avian Pathology Workshop**September 2006**

This regional workshop concentrated on proper avian health surveillance systems and diagnostics. Emphasis was put on the top four diseases (Newcastle, Avian Influenza, Laryngotracheitis, and Infectious Bursal Disease) reportable under the OIE for exportation of poultry and poultry products.

National Laboratory Assessments**August 2006**

USDA/FAS organized an assessment of the laboratories for microbiology, and animal and plant health. This assessment resulted in specific recommendations for improvement of lab standards and provided USDA with feedback on future technical assistance needs. In addition, \$1 million has been provided to USDA's CAFTA-DR partners under Food for Progress to aid in the purchase of necessary laboratory equipment and supplies.

Poultry Inspection Techniques**May 2006**

This training addressed proper inspection techniques for slaughterhouses with an emphasis on HACCP, SSOP, FSIS rules of practice, risk assessment, and U.S. regulations on salmonella.

Tuberculosis and Brucellosis Technical Assistance**May 2006**

USDA/FAS organized a regional workshop on developing an animal health surveillance system and proper diagnostics of tuberculosis and brucellosis.

FSIS Meat Inspection Training in Puerto Rico**May 2006**

USDA/FAS supported a regional course that detailed a comprehensive approach to meat inspection techniques and regulations. The course, organized by FSIS on a yearly basis, is equivalent to the course required for U.S. inspectors.

U.S. Meat Inspection System Audit**March 2006**

A team of inspectors from Honduras traveled to the United States to audit U.S. meat and poultry plants to verify that the U.S. inspection systems comply with international food safety standards in order for the countries to recognize them as equivalent. The teams also learned about and observed first-hand the details of compliance with international food safety standards so they could use the standards in equivalence auditing of other countries.

World Trade Organization (WTO) SPS Agreement**December 2005**

USDA and WTO personnel provided a regional training on the details of the SPS agreement as well as the rights and obligations of each country.

SPS Equivalence**September 2005**

USDA/FAS organized a workshop for Honduran participants that detailed the legal and practical implications of the WTO SPS agreement with regard to equivalence and described the legal framework for the policy change appropriate for granting equivalence.

Overview of U.S. Regulations Workshop**December 2004**

In cooperation with FDA, APHIS, FSIS, and U.S. Customs, FAS organized a workshop to cover U.S. agricultural trade regulations.

Cochran Fellowship Program**FY2005 – FY2010**

USDA/FAS has sponsored 38 Cochran fellows from Honduras since fiscal year 2005. The fellows participated in the following trainings: Foreign Animal Disease Diagnosis, HACCP Practices and Policies, Food Retail, Pest Risk Assessment II, FSIS Meat and Poultry Inspection I, Agricultural Market News, Chemical and Microbiological Residue Analysis, Table Grape Marketing and Handling, Food Safety, Use of Soy in Food Processing, Food Testing Quality Systems, Milk Quality, Handling and Processing, Plant Pathology, Basic Plant Risk Analysis, FSIS Meat and Poultry Inspection III, Fumigation and Quarantine Treatment, Fresh Fruit and Vegetable Production and Handling, Cattle Financing Options.

Food for Progress Assistance

2008 Food for Progress agreement with TechnoServe. Programming valued at \$5.6 million assist smallholder farmers implement diversification programs that integrate biofuel feedstock with other high value products like fine cocoa, roots and tubers, and dairy, to help agribusinesses access export markets for these products under the CAFTA framework.

2006 Food for Progress agreement with TechnoServe. Programming valued at \$3 million increases the competitiveness of coffee and cocoa producer groups, through technical assistance, marketing support, business development, and financial linkages for investments and working capital. In the fine cocoa component, the program revitalizes the Honduran cocoa industry that was damaged between 1998 and 2002 by Hurricane Mitch, the arrival of monilia (a fungal disease destroying most of the fruit), and low prices in the international market. TS has identified fine cocoa varieties that command a premium in the international market and will enable Honduras to compete in niche markets rather than regular cocoa markets.

2006 Food for Progress Government-to-Government agreement. Programming valued at \$4.5 million improves infrastructure, access to resources and market conditions for small and medium-sized producers and agribusinesses by supporting the "Strategic Plan of the Agriculture Food Sector and Rural Areas 2007-2009"; and carrying out trade capacity building activities developed in the context of the U.S.-Dominican Republic-Central American Free Trade Agreement (DR-CAFTA).

2006 Food for Progress agreement with CARE valued at \$1.2 million is focused on market development, training teachers, farmers leaders and youth; irrigation, micro-credit and technical assistance for farmers and agribusinesses.

2010 Monetized funds used to support FINCA International micro-finance programs in country. The program in Honduras is for \$7.8 million in FY 2010.

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Nicaragua SPS Capacity Building Report

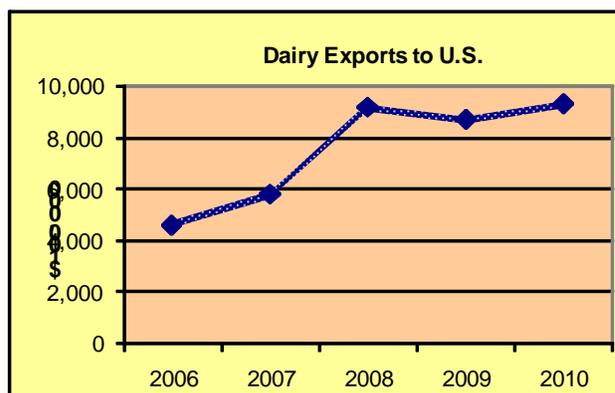
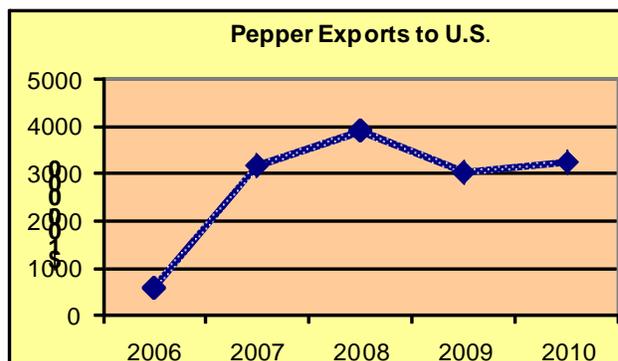
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Summary

The US Department of Agriculture’s (USDA) Foreign Agricultural Service (FAS), with funding from the US Agency for International Development (USAID), has worked closely with the government of Nicaragua since the signing of CAFTA-DR in 2005 to provide prioritized technical assistance for both the public sector and private industry. These activities have been part of SPS trade capacity building efforts in Nicaragua which are currently in progress to improve Nicaragua’s agricultural trade in the international marketplace (activity details can be found in Appendix A). To date 1038 people from both the public and private sector have been trained and over 293 firms have benefited from technical assistance since 2005.

The Program has contributed to significant impact, including:

- Sanitary and Phytosanitary (SPS) capacity building has helped Nicaraguan organizations meet USDA Animal and Plant Health Inspection Service (APHIS) mitigating measures required to export to the U.S., resulting in imports by the United States of over \$14 million fresh peppers since 2006.
- Technical assistance provided during Central American custom union meetings, assisted Nicaragua, along with other Central American countries, to pass a Harmonized Regulation on Microbiological Residue Standards for Food. The new regulation standardizes maximum residue levels for over 95% of microbiological pathogens. This has helped provide the Nicaraguan food industry build a solid regulatory framework to export foods that meet international standards.
- Nicaragua has joined with other CAFTA-DR countries to form a working group to harmonize laboratory procedures and standardize testing methods. With help from U.S. experts, over 15 diagnostic protocols have been harmonized that meet internationally accepted standards to date.
- Capacity building directed at dairy processing has contributed to an increased number of dairy plants approved to export to the U.S. from 3 plants in 2006 to 16 plants in 2010. U.S. imports of dairy products from Nicaragua have increased an average of 61% from 2005 to 2011.
- Nicaraguan officials have rewritten poultry inspection laws and regulations to meet USDA requirements for exporting to the United States.



- Nicaragua has passed laws, which recognize that, the United States meat and poultry inspection system is “Equivalent”. Adopting these laws was a pre-condition for implementation of CAFTA-DR.
- The Nicaraguan meat industry estimates that the Meat Cuts Training contributed to an increase of revenue by \$30 per carcass. This represents an estimated economic benefit of \$24,000 a day, or approximately \$3 million per year since April 2006.

Institutions that Received Targeted Capacity Building Activities

1. Ministry of Agriculture Animal Health Division
2. Ministry of Agriculture Plant Health Division
3. Ministry of Agriculture Food Safety Division
4. National Animal Health Laboratory
5. National Plant Health Laboratory
6. National Food Safety Laboratory
7. Ministry of Health Laboratory
8. Avícola Hermanos Rosales Poultry Plant
9. Pollo Rico Poultry Plant
10. Tip-Top Industrial Poultry Plant
11. Avícola La Estrella Poultry Plant
12. Camoapan Dairy Cooperative
13. El Masiguito Dairy
14. Quesería Benítez Dairy
15. Lacteos Matiguas Dairy
16. Coproleche Dairy Cooperative
17. La Montaña Dairy
18. Parmalact Dairy
19. San Martin slaughterhouse
20. Novaterra slaughterhouse
21. Nuevo Carnic slaughterhouse
22. Matadero Macesa slaughterhouse

Laws Passed with US Technical Assistance

1. Law creating the mechanism for Equivalence 2006
2. Law creating the requirement of HACCP for slaughterhouse 2006
3. New Law on Poultry Inspection Requirements 2008

Moving Forward

In the summer of 2010, Nicaraguan officials completed a survey indicating their opinions regarding the level of completion of primary aspects of the SPS systems, (detailed data in Appendix B). USDA experts used the data collected from this survey to evaluate specific gaps in each system and develop recommendations for moving forward. Below are those recommendations.

Animal Health

- **Allocate sufficient funds to maintain adequate staffing and resources.** A viable animal health system requires a quality surveillance system of animal diseases. Adequate funds and well-trained staff ensure the quality of an animal health and surveillance system.
- **Implement a National Veterinary Accreditation Program.** A program is necessary to accredit an adequate number of well-trained veterinarians to provide day-to-day services to livestock farmers and professionals capable of responding to immediate national outbreaks of disease.
- **Establish a national animal identification program** within the public sector. Such a program will help ensure animal health and eradication programs function properly and oversee traceability of animals.

- **Establish a National Indemnity Program.** This program would guarantee funding to provide incentives for people to report suspected cases of disease and to pay producers for animals taken by the State. The program must have the capabilities to address a Foreign Animal Disease Outbreak for a minimum of two weeks from specific earmarked funds for the national emergency.
- **Establish a functional National Surveillance System.** To ensure animal diseases are properly controlled and/or eradicated. Such a system is needed to guarantee that a country is free of particular diseases as required by the “Rationalization and Rulemaking Process” of the United States. This complex system requires many assets working in coordination such as; trained personnel, vehicles and other equipment, diagnostic laboratories, cooperation with industry and the population as a whole, etc.

Food Safety

- **Increase government oversight in the review and testing of pasteurization systems** for plants exporting to the U.S. Currently some exporting plants’ pasteurization systems are not properly functioning.
- **Collaborate with the Food and Drug Administration (FDA) to identify a heat treated, non-pasteurized cheese product that complies with FDA requirements** for fresh cheese exports. The development, manufacturing and export of such a cheese would result in fewer issues of non-compliance with U.S. pasteurization requirements.
- **Update/strengthen the current pesticide regulations** and to harmonize with CAFTA-DR and the Central America Customs Union (CACU) regulations.
- **Establish national pesticide MRL policies and regulations;** consistent with other CAFTA-DR and CACU standards.
- **Strengthen/improve the enforcement and regulatory programs for pesticide post-registration activities** such as; Good Agricultural Practices, safe-use, container disposal, etc.
- **Develop a national food safety (pesticide Minimum Residual Levels) program and pesticide formulation-testing program.**

Laboratories

- **Allocate adequate funds and hire well-trained staff for all laboratories.** The national laboratory currently charges for diagnostic services; however earned income from fees does not always remain in the budget. These funds should be used to maintain adequate supplies, buy new equipment, and hire and keep highly trained personnel.

**Nicaragua
SPS Capacity Building Activities
2005-2011**

Country	Participants	Public Sector	Private Sector	Female	Firms
Nicaragua	1038	523	515	263	293

Food Safety Directors Meeting

April 2011

A 3-day regional meeting was conducted in El Salvador with the participation of Food Safety Directors from all Central America Countries to review the recently passed Central American Microbiological Standards for Food. Participants included Food Directors from both Ministry of Health and Ministry of Agriculture. The purpose of this meeting was to reevaluate some standards that were set by the Ministry of Health that were not consistent with internationally accepted standards. In addition, the Ministries of Agriculture were not included in the creation of this new regulation and this meeting was to provide both working groups the opportunity to work together on the revised legislation. This activity was organized by OIRSA though funds provided by USDA for continued work on harmonizing Central American food safety standards. OIRSA also contribute its own funds to cover venue, translation, transportation and coffee breaks.

Poultry Pre-Audi

November 2010

A retired Food Safety Inspection Service (FSIS) Veterinary Inspector to provide Nicaragua pre-audits of 3 poultry plants. Dr. Lee provided both the GON and the private sector with technical assistance on how to get the plants to meet FSIS regulations in order to achieve market access to the U.S. The plants visited were: Tiptop, PIPASA and Pollo Rico. This training is part of the on-going USDA-led program to assist Nicaragua in achieving equivalency with the United States for poultry and processed poultry products. This is a requirement by the USDA/FSIS for countries that wish to export to the United States.

Regional Good Laboratory Practices for Pesticide Residue Labs

August 2010

In collaboration with the Office of Enforcement and Compliance Assurance, Environmental Protection Agency (EPA), and Rutgers University's Interregional Research Project Number 4 (IR-4), USDA/FAS trained pesticide technicians in good laboratory practices (GLP) in San Jose, Costa Rica. The training was conducted in cooperation with the University of Costa Rica. Compliance with EPA's GLP standards ensures the quality and integrity of laboratory test data, which is submitted in support of pesticide product registrations. This activity was jointly funded by USAID and USDA EMP funds and included participation from 19 Latin American countries, including Nicaragua.

Regional Zebra Chip and Trips Palmi Training in Honduras

August 2010

USDA/FAS sent partners from the Agricultural Research Service (USDA/ARS) and the University of Florida, to provide technical information on preventing Trips Palmi and Zebra Chip Plant Pests in crops to a regional workshop hosted by OIRSA. The Organismo Internacional Regional de Sanidad Agropecuario (OIRSA), a regional plant and animal protection organization, sponsored the workshops to increase the strength of pest prevention in the CAFTA/DR region. Program participants, representing countries including Panama, Dominican Republic and Belize, were funded by OIRSA, while USDA provided expenses for the experts.

Poultry Health Surveillance System Review

July 2010

USDA/FAS supported a technical veterinary expert to conduct a review of Nicaragua's poultry surveillance system and to provide assistance to the Nicaraguan Ministry of Agriculture and Forestry (MAGFOR), poultry industry leaders and top producers. The expert evaluated the current status of the poultry surveillance system, identified needs, gave targeted training, and provided recommendations for improvements for future equivalence and certification conducted by international entities. The program furthers the Sanitary and Phytosanitary (SPS) capacity building objectives of the Dominican Republic-Central American Free Trade Agreement (CAFTA-DR) and is funded through a participating agency agreement with the U.S. Agency for International Development (USAID) and USDA.

Veterinarian Accreditation Training in Nicaragua**April 2010**

USDA/FAS provided a technical veterinary expert to conduct a veterinary accreditation training course and provide assistance to the Nicaraguan Ministry of Agriculture and Forestry (MAGFOR) on reviewing their current programs and plans. This training improved the national veterinary service by standardizing the protocols for certification in veterinary medicine and animal disease control. The training was conducted at the University of Leon in cooperation with the Honduran Veterinarian Association and OIRSA. Participants included MAGFOR officials, OIRSA officials, Private Veterinarians and students.

Residue Laboratory Technical Assistance in Nicaragua**March 2010**

USDA led a pesticide residue laboratory technical assistance for Ministry of Agriculture technicians in Managua, Nicaragua. Residue experts from the U.S. Food and Drug Administration (FDA) and the Environmental Protection Agency (EPA) conducted the training on residue analysis and laboratory accreditation. This activity is part of a long-term capacity building program aimed to strengthen the Central American national laboratories in operational and testing methods to meet U.S. and international standards. Proficiency in these laboratories is vital to maintaining a functional food safety system, and ensures the application of internationally recognized analytical methods and tests.

Dairy Training for Processing Industry in Nicaragua**December 2009**

USDA/FAS sponsored training on FDA food safety requirements for dairy processing in Managua, Nicaragua. These courses provided Nicaragua with information on FDA requirements for Good Manufacturing Processes (GMPs), Hazard Analysis and Critical Control Points (HACCP), and Pasteurization in advance of the FDA inspections of Nicaraguan facilities. The training built industry capacity to implement improvements to the food safety management systems and of inspection officials to provide adequate oversight and verification of those systems.

Regional Chile Pre-clearance Study Tour**August 2009**

USDA/FAS organized a study tour of Chile's Plant Health System. Participants included Ministry of Agricultural Officials from all CAFTA-DR countries, with exception of Honduras, and key private sector individuals. The purpose of this trip was to view a successful model for plant products export to the U.S. and to allow Chilean exporters to showcase their system and share their experiences with their CAFTA-DR neighbors. This unique third country training allows CAFTA-DR participants to gain a better understanding of how plant health surveillance, inspection, quarantine and certification is conducted, the roles of each party in that process and the infrastructure required to sustain the effort. The tour included a full review of national procedures and USDA requirements at various quarantine, inspection and processing facilities in Chile. This training was coordinated by USDA/FAS and USDA/APHIS, as well as FAS/Santiago, APHIS/Santiago and SAG (Ministry of Agriculture in Chile).

Regional MRL's Specialty Crop Seminar on Pesticides**August 2009**

USDA, in coordination with the Food and Agriculture Office of the United Nations, held a regional workshop in San Jose, Costa Rica to address the harmonization of pesticide maximum residue levels (MRLs). Workshop topics included international harmonization efforts, identifying specific obstacles Central American countries face regarding MRLs, discussing how to better coordinate various efforts, and providing recommendation on how countries can better engage and benefit from Codex and other international systems. *The USDA Emerging Markets Program funded this activity.*

Regional Pesticides Residues Training, Costa Rica**July 2009**

USDA, in collaboration with the Environmental Protection Agency's (EPA) Office of Enforcement and Compliance Assurance, trained laboratory officials on good laboratory practices (GLP). Compliance with EPA's GLP standards ensures the quality and integrity of laboratory test data which is submitted in support of pesticide product registrations. The training was conducted at the pesticide analytical laboratory of the University of Costa Rica, which is currently the only pesticide laboratory in the CAFTA-DR region accredited internationally under International Organization for Standardization (ISO) regulation 17025. This activity is part of a long-term capacity building program aimed to strengthen the Central American Free Trade Agreement-Dominican Republic (CAFTA-DR) national laboratories in operational and testing methods to meet U.S. and international standards.

Quality Control in Food Microbiology Laboratory, Nicaragua**July 2009**

USDA, in cooperation with Texas A&M University and Mexico's Universidad Autonoma de Hidalgo, conducted a workshop for laboratory technicians in the national laboratories of Nicaragua. The training focused on quality control in food microbiology analysis, and is part of a larger series of trainings designed to increase the capacity of the national laboratories in Central America and the Dominican Republic to test for food, plant, and animal-borne pathogens using internationally recognized scientific standards. This will decrease the amount of arbitrary detentions experienced by U.S. exporters to the region and better protect the American consumer.

Regional Microbiological Laboratory Methods Training in Nicaragua**April 2009**

USDA, in cooperation with Texas A & M University conducted a regional workshop on proper laboratory techniques for testing microbiological samples for salmonella. The training focused specifically on testing for salmonella in poultry products, vegetables and dairy products. Participation included laboratory personnel from the national laboratories of Guatemala, Costa Rica, El Salvador, Honduras, Nicaragua, and the Dominican Republic. The training provided attendees with the technical knowledge necessary to test for food borne microbiological hazards, thus providing for safer food, and facilitating trade between the Central American nations and the United States. The techniques taught include both FSIS and FDA approved methods.

Nicaragua USAID Sponsored CAFTA-DR Fair**March 2009**

USAID's Nicaragua Mission co-sponsored a CAFTA-DR Fair with the Inter-American Development Bank's (IDB) AgroCAFTA project. The purpose of the fair was to outline the advances that have taken place under the trade agreement. The fair included stands and professional seminars on a wide area of topics. The Regional Coordinator of the Participating Agency Program Agreement (PAPA) between USAID and USDA attended the fair to pass out brochures detailing some of the successes the region has experienced due to the Agreement and to answer questions regarding US regulations and market access issues. A presentation was also given in conjunction with OIRSA on procedures to export food and agricultural products to the United States. In addition, an APHIS expert gave a presentation on exporting fresh produce to the United S

Central America Laboratory Training on Pesticide Residues**February 2009**

USDA conducted a workshop in San Jose, Costa Rica for technicians from national laboratories in Costa Rica, Dominican Republic, El Salvador, Guatemala and Honduras. The purpose was to improve the use of testing methodologies for detecting pesticide residues in foods. The objective of this training is to implement international standards for quality control and assurance, thereby supporting a functional food safety system.

Pesticide Registration Technical Assistance in Nicaragua**January 2009**

From Jan 16-18, the USDA Foreign Agricultural Service sent an EPA expert to Nicaragua to help pesticide regulators in the process for registering new pesticides. The purpose of this technical assistance was to help Nicaragua prepare for the Customs Union scheduled for March 2009 in Managua. Nicaragua has worked on creating internationally accepted regulations on pesticide registration procedures and maximum residue levels standards and wanted to ensure they would be harmonized with the standards other Central American countries would present at the meeting. The EPA official met with the Ministry officials that are working on the creation of these regulations as well as those that are participating in the technical committee of the customs union.

Dairy Training and Technical Assistance in Nicaragua**January 2009**

From January 14- 21, the USDA/FAS sent experts to Nicaragua to follow up with dairy plants on their implementation of recommended HACCP procedures, pasteurization, good manufacturing practices and the use of proper equipment. This was done to achieve international dairy sanitation standards required for exports and to help plants meet FDA regulations. The objective of this effort is to increase the level of two-way trade in dairy products. A total of 7 dairy plants were visited and provided with technical assistance.

***Food Safety Inspection Service-mandated E.Coli
Testing Methods in Nicaragua***

January 2009

From January 12-16, in Managua, Nicaragua, the USDA Foreign Agricultural Service provided training to Nicaraguan diagnostic laboratories on the new Food Safety Inspection Service (FSIS)-mandated E.Coli testing procedures. Dr. Javier Castro, a microbiologist from Texas A&M University, conducted the training. Specifically, the training demonstrated proper equipment, procedures, and requirements for the new method to test for E.Coli in meat. Implementation of the new FSIS testing procedures is required in order to maintain equivalency status for trade in meat products with the United States. Without this training the country was at risk of losing meat exports to the U.S. valuing over \$100 million annually.

Regional Peppers and Tomatoes Quarantine Pest Diagnostics

September 2008

Nicaraguan officials participated in a regional workshop held in Honduras for all the CAFTA-DR countries on the identification and diagnosis of the ten quarantine pests that are part of the final rule for exports of peppers and tomatoes from the CAFTA-DR countries. Participants represented both government and private sector. The course took place at the Honduran Foundation for Agricultural Investigation (FHIA) so that the experience stays in the region with local experts.

Laboratory Assessment of Progress and Planning

August 2008

USDA/FAS led an evaluation of the National Laboratories in Nicaragua, Honduras, El Salvador, Guatemala, the Dominican Republic, Costa Rica, and Panama. The labs evaluated were in the areas of Animal Health, Pesticide Residue, and Microbiology. In addition to the evaluation, the team convened in Costa Rica to decide upon upcoming laboratory trainings for each country. Experts from the Food Safety Inspection Service, the Environmental Protection Agency and Food and Drug Administration participated in the evaluation of the labs and in the final meeting in Costa Rica. This activity is part of a long-term capacity building program aimed to strengthen the CAFTA-DR and Panama national laboratories in operational and testing methods to meet U.S. and international standards. Proficiency in these laboratories is vital to maintaining a functional food safety system, and ensures the application of internationally recognized analytical methods and tests.

Classic Swine Fever Training in Nicaragua

July 2008

A workshop was held in Nicaragua to provide information and hands on lab practical training to regulatory officials on classical swine fever and control measures. This workshop is an outcome of the larger regional train-the-trainer workshop held in May which trained country experts who took information back to be shared and replicated in each of their own countries. This training was tailored to fit Nicaragua's needs and specific situation.

Bovine Semen and Embryo Evaluation for Nicaragua

July 2008

USDA/FAS sent a technical expert to Managua, Nicaragua, to review the possibility of the exportation of bovine semen and embryos from the Seminole Indian Tribe (SIT) facilities and donor bulls. The expert assessed the current status of the facility and provided recommendations for two protocols that would help the facility meet OIE standards on animal health surveillance, be declared free of various diseases, and be approved to export. A protocol for exporting and importing must be in place and would represent a significant economic impact for the region.

Regional Microbiology Laboratory Training

July 2008

USDA/FAS Foreign Agricultural Service led training on quality control in food microbiological analysis and protocol for validation of microbiological methods, for the technicians of the national testing laboratories of Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Nicaragua, and Panama. This training is part of a long-term capacity building program aimed to strengthen the CAFTA-DR and Panama national laboratories in operational and testing methods to meet U.S. and international standards. Proficiency in food microbiological methods is vital to maintaining a functional food safety system, and ensures the application of internationally-recognized analytical methods and tests.

Laboratory Training Animal Health**June 2008**

A team of experts was sent to Nicaragua to provide a regional training on animal health diagnostics. Laboratory technicians from all the CAFTA-DR countries that carry out this laboratory work participated. This training is part of a long-term capacity building program aimed to strengthen CAFTA-DR and national laboratories in operational and testing methods to meet U.S. and international standards. Proficiency in disease diagnostics is vital in maintaining a functional animal health system, and ensures the application of internationally-recognized analytical methods and tests.

The first two days were spent on proficiency testing and lectures on the test procedures. In addition, a one-on-one session was devoted to each group to explain and discuss their proficiency results so participants have a thorough understanding of the test and its interpretation.

The last two days were spent on Poultry diagnosis covering the four main poultry diseases (Avian Influenza, New Castle disease, Infectious Laryngotracheitis, Infectious Bronchitis), Lectures on Biosecurity and Biosafety in the laboratories, samples collection and transport, preparation of reagents for use in the diagnostic testing, and the importance of serology in poultry diagnosis.

Laboratory Training Pesticide Residue**June 2008**

A team of experts from EPA was sent to El Salvador to provide a regional training on pesticides residue diagnostics and the formulation of testing protocols. This training is part of a long-term capacity building program aimed to strengthen CAFTA-DR and national laboratories in operational and testing methods to meet U.S. and international standards. Proficiency in pesticide residue analyses is vital in maintaining a functional food safety system, and ensures the application of internationally-recognized analytical methods and tests.

Regional Swine Surveillance System**May 2008**

A regional course was provided to all the CAFTA-DR countries from May 12-16, in Guatemala. This was set up as a train-the-trainer approach and included participation from all the Ministries of Agriculture from the CAFTA-DR countries as well as presentations from APHIS, FAO, and OIRSA. The purpose was to review all the countries' Classic Swine Fever programs and train technicians on proven practices for the eradication of the disease. The trained personnel will now continue the training to both government officials and private sector personnel in each of the CAFTA-DR countries.

Regional Pest Risk Assessment Training**April 2008**

USDA/FAS hosted a Pest-Risk Assessment workshop in San Pedro Sula, Honduras. Participants to the workshop included regulatory officials from all the CAFTA-DR countries. FAS worked closely with the Animal and Plant Health Inspection Service (APHIS) to develop this training, and APHIS specialists conducted the workshop. The purpose was to provide the necessary steps needed to get a new fresh product through the US regulatory system. The workshop also included a site visit to laboratories in the Honduran Agricultural Research Foundation (FHIA). The workshop builds institutional strengthening at the Ministries of Agriculture to improve their procedures and increase the speed in which new fresh plant products can achieve market access to the US. In addition, an outline of the new Q56 regulation was provided. This is the new APHIS regulation that went into effect in May of 2008 that allows for an expedited PRA procedure and allows countries to achieve market access at an accelerate rate.

EPA Participates in Central America Regional meeting on Pesticide Tolerance and Registration**February 2008**

USDA/FAS, in collaboration with the U.S. Environmental Protection Agency (EPA), sent a pesticide expert from EPA to the a regional customs union meeting on Pesticide Registration and Tolerance standards for the Central American Region held in El Salvador. The purpose of this technical assistance was to help the Central Americans harmonize their regulations on Residue Levels and Registration Standards. In addition, the expert met with government officials and discussed the current situation of pesticide registration, levels in Central America, and US requirements for exports.

Regional Plant Pest Diagnostic Training**January 2008**

From January 21-25, USDA and the University of Florida provided technical training to national plant laboratory personnel from the Central American and Dominican Free Trade Agreement (CAFTA-DR) countries. The training was held in the Dominican Republic and focused on fundamental practices such as quality management systems (QMS), standard operating procedures and remote diagnostics. It also included a site visit to the Dominican Institute for Agricultural and Forest Research (IDIAF). Ten diagnostic protocols written during this training are now being applied regionally.

Good Agricultural Practices (GAPS)**September 2007**

This five-day food safety in fresh produce course was provided in conjunction with JIFSAN and FDA. It included one day in the field and addressed issues such as SSOPs, HACCP, and others that may affect the indirect contamination of fresh produce. In addition, an expert also went down to present on aflatoxin management. This expert also spent a day and half in the field reviewing what the problems were and how to address them. Nicaragua has problem with aflatoxins that limits its ability to export peanuts and could endanger cheese exports.

Poultry Plant Pre-Audits**September 2007**

This was a follow up of the ongoing training that is being provided to both the public and private sector in Nicaragua. The goal of this review of the plants was to establish how much of the training that has been provided in the last two years has been incorporated in the country. In addition, it provided the opportunity to both the government and the plants to continue to improve prior to an official inspection by FSIS.

Laboratory Managers Training**September 2007**

This was the second of the trainings provided to the Laboratory Managers of all the CAFTA-DR countries. This training emphasized quality control, LIMS and review of the SSOP's that the groups had been working on. The participants included managers of animal health, plant health and food safety laboratories of the Ministries of Agriculture and Health.

US Regulatory System**August 2007**

This was a regional course on how the US regulatory system works. It was designed to explain the different agencies that oversee the US regulatory system. Presentations were provided by FDA, APHIS (both plant health and animal health), FSIS and Customs. This course provided the directors of animal health, plant health and food safety from all the CAFTA-DR countries the opportunity to meet their counterparts in the US government and begin to resolve issues directly.

Dairy Training**August 2007**

This 3-day course focused on food safety issues at the processing level. Large and small processors as well as a small one were invited to participate in this course. The course included seminars and visits to plants to provide training on pasteurization, HACCP for dairy plants, proper equipment, Standard Operating Procedures and a section on aflatoxins.

Risk Assessment Course**August 2007**

A two week course was provided in conjunction with JIFSAN and FDA on risk assessment for processed foods. This was a regional course that included all aspects of risk assessment as well as statistical exercises on establishing risk levels. FDA also reviewed the regulations that apply to food and allowable levels of residue and testing methods.

FDA Labeling Training**July 2007**

A course was organized in Nicaragua to explain the FDA regulations on labeling. This was a two day course that discussed regulations on packaged food, fruits and vegetables, and meat. The goal of this training is to help the Nicaraguan industry reduce the level of detentions due to improper labeling which was still at 69% of exports.

Swine Surveillance Workshop**July 2007**

USDA/FAS coordinated with APHIS to provide training on swine surveillance. This overall objective was to help the Nicaraguans establish a surveillance system that will help them eradicate Classic Swine Fever and pass an APHIS audit in order to be able to export pork product to the U.S.

Poultry Surveillance Systems Workshop**June 2007**

USDA/FAS in coordination with APHIS and FSIS conducted a regional workshop in Managua on poultry surveillance systems. The overall goal of this workshop was to provide regulatory and industry officials in the CAFTA-DR countries the knowledge to begin to build poultry surveillance systems that meet OIE and APHIS standards. Building these animal health systems will not only increase trade with Central America but also and perhaps more importantly, especially in the short-term, help to enhance agricultural biosecurity in Central America and the United States.

Phytosanitary Information Principles**May 2007**

USDA/FAS in conjunction with APHIS, organized a regional course on phytosanitary principles that included training on pest risk assessment, Q37 and Q56. In addition, the CAFTA partners were trained on how the U.S. conducts its surveillance system, port inspection procedures and databases for pest. A total of eleven APHIS presenters were on hand to provide this intense training.

Laboratory Management Course**April 2007**

USDA/FAS provided a regional training course on laboratory management. This course was directed to the lab directors of animal health, plant health, microbiology and residue. The course included training on Good Laboratory Practices (GLP's), Laboratory Information Systems (LIMS), and other management techniques.

Good Dairy Sanitation Course**March 2007**

A course on good dairy sanitation was provided to the Nicaraguan dairy producers sector. This course was designed to help small producers improve the quality and safety of their milk. Experts from Utah State University provided training for 3 days on all aspects of milking, including a day of practice in the field. The attendants included small producers and officials from the Ministries of Health and Agriculture.

National Laboratory Assessment**February 2007**

A USDA-led team of experts was sent to Nicaragua to assess its national agricultural laboratories. The team consisted of experts in pesticide residue, food and dairy microbiology, animal health and plant health. The purpose of this assessment was to determine the condition of the laboratories, identify training needs, and provide recommendations for the Ministry of Agriculture to achieve certification on specific testing methods.

Biotechnology Course**September 2006**

This three-week course in Washington D.C. was organized for members of the National Committee for Modified Organisms. The workshop detailed international standards for genetically modified organisms (GMO's) as well as the basic scientific methodology for identification and classification of GMO's.

Avian Pathology Workshop**September 2006**

This regional workshop concentrated on proper avian health surveillance systems and diagnostics. Emphasis was given to the top four diseases (Newcastle, Avian Influenza, Laryngotracheitis, and Infectious Bursal Disease) reportable under the OIE for exportation of poultry and poultry products.

Peppers and Tomatoes Pest Risk Workshop**November 2006**

USDA/FAS, in cooperation with USDA/APHIS, provided a regional training on compliance regulations for mitigating measures to export peppers and tomatoes to the U.S. This regulation was established as the final rule for admissibility as part of the Pest Risk Assessment.

FSIS Meat Inspection Training in Puerto Rico**May 2006**

USDA/FAS supported a regional course that detailed a comprehensive approach to meat inspection techniques and regulations. The course, organized by FSIS on a yearly basis, is equivalent to the course required for U.S. inspectors.

Tuberculosis and Brucellosis Technical Assistance**May 2006**

USDA/FAS organized a regional workshop on developing an animal health surveillance system and proper diagnostics of tuberculosis and brucellosis.

U.S. Meat Carcass Processing and Choice Cut training**April 2006**

USDA/FAS provided a processing/choice cut workshop to the meat slaughtering industry to harmonize with U.S. preferences for choice cuts of meat as well as to increase meat carcass yield for exportable product.

Poultry Surveillance Systems Assessment in Nicaragua**March 2006**

USDA/FAS, in cooperation with the Nicaraguan Government, provided a baseline assessment of the public poultry inspection system as well as poultry slaughter plants in Nicaragua. The Avian Pathology training (see below) was follow-on to this assessment. Additional workshops for poultry surveillance are planned for FY2007.

U.S. Meat Inspection System Audit**January 2006**

A team of inspectors from Nicaragua traveled to the United States to audit U.S. meat and poultry plants to verify that the U.S. inspection systems comply with international food safety standards in order for the countries to recognize them as equivalent. The teams also learned about and observed first-hand the details of compliance with international food safety standards for implementation of such standards in equivalence auditing of other countries.

World Trade Organization (WTO) SPS Agreement**December 2005**

USDA and WTO personnel provided a regional training on the details of the SPS agreement as well as the rights and obligations of each country.

SPS Equivalence**September 2005**

USDA/FAS provided a workshop to Nicaraguan participants that detailed the legal and practical implications of the WTO SPS agreement with regard to equivalence, as well as described the legal framework for the mechanism of policy change appropriate for granting equivalence.

Cochran Fellowship Program**FY2005 – FY2010**

USDA/FAS has sponsored 27 Cochran fellows from Nicaragua since fiscal year 2005. The fellows participated in the following trainings: Foreign Animal Disease Diagnostic, Food Retail, FSIS Meat and Poultry Inspection I, Swine Production and Management, Agricultural Biotechnology, Veterinary Epidemiology, Dairy Herd Management, Trading Opportunities: CAFTA-US, Supermarket Management and Food Retail.

Food for Progress Assistance

Food for Progress agreement signed in 2008 with Project Concern International. Programming valued at \$6.7 million builds capacity of local producers with raising, production and sale of agricultural products, promoting animal health, and improving access to quality foods by vulnerable populations.

Monetized funds used to support GON SPS programs in country. The approved program value for Nicaragua is for \$11.4 million in FY 2010.

Monetized funds used to support FINCA International micro-finance programs in country. The program in Nicaragua is for \$5.6 million in FY 2007.

Food for Progress Government to Government agreement signed in 2005 monetized funds of \$4.5 million were used to support GON SPS programs in country. The projects have had significant impact in addressing SPS issues in Nicaragua and facilitating regional and international trade by promoting animal health (PROVESA), plant health (PROVESAVE) and establishing good agricultural practices.

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