

NICARAGUA ARAP

Agriculture Reconstruction Assistance Program

Expansion of Produce and Marketing Opportunities, US Import Permit Requirements

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Submitted by:
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To:
United States Agency for International Development
Managua, Nicaragua

Under RAISE IQC Contract No. PCE-I-00-99-00003-00
Task Order No. 802
November, 2001

Acronyms

Acronym	Meaning
AGEXPRONT	Asociación Gremial de Exportadores de Productos no Tradicionales (Guatemala)
APENN	Asociación Nacaragüense de Productores y Exportadores de Productos no Tradicionales
APHIS	Animal Plant Health Inspection Service
ARAP	Agricultural Reconstruction and Assistance Program
CTE	Centro de Tramites de Exportaciones (El Salvador)
CTO	Cognizant Technical Officer
FIDE	Fundación para la Inversion y Desarrollo de Exportaciones (Honduras)
FOB	Free on Board
OMB	Office of Management and Budget
PPQ	Plant Protection and Quarantine
PRA	Pest Risk Assessment
PROCOMER	Promotora del Comercio Exterior (Costa Rica)
SAC	Sistema Arancelario Centroamericano
USA	United States of America
USAID	United States Agency for International Development
USDA	United States Department of Agriculture

Currency Conversion

US \$1.00 = 13.70 Nicaraguan Córdoba

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Chemonics International Inc.

Nicaragua Agricultural Reconstruction & Assistance Program (ARAP)

Expansion of Produce and Marketing Opportunities, US Import Permit Requirements

I. Executive Summary

The Nicaragua Agricultural Reconstruction & Assistance Program (ARAP) requested an agribusiness consultant with experience in traditional and non-traditional agricultural exports from Latin America to analyze possible means for expanding the export of horticultural products from Nicaragua, with particular emphasis on United States import permit requirements. The consultant conducted this study over a seventeen-day period during October - November 2001.

The study methodology was to make a side-by-side comparison of those fresh fruit and vegetable commodities that are admissible into the United States from Nicaragua and its four neighboring countries: Costa Rica, El Salvador, Guatemala and Honduras. In completing the analysis, the consultant compared the export value of the admissible fresh products for the five countries. He also compared the export values for the five countries of those fresh products that are not admissible from Nicaragua into the United States, but are admissible from other countries in Central America.

The following conclusions resulted from the analysis:

Nicaragua does indeed lag its neighbors in terms of the admissibility of its fresh fruit and vegetables into the United States. There is a need to pursue the admissibility of additional fresh produce items from Nicaragua, to provide this country with equal opportunities to access US markets that its neighboring countries have. Based on the value of these exports from neighboring countries, the potential annual benefit to Nicaragua would be approximately US \$19 million.

There is also a need to pursue admissibility into the United States for other fresh fruit items for which US market opportunities are available. Fresh, exotic tropical fruit such as mangosteen, guava, sweetsop, passion fruit, sapodilla, lychee, and granadilla enjoy an increasing demand in US markets. Few of these products are presently admissible into the United States from any country in Central America. Should fresh, exotic fruit items become admissible into the United States, the potential economic benefit to Nicaragua is estimated to be US \$5 million annually.

However, far greater benefits would accrue to Nicaragua if its exporters were capable of exporting admissible products of equal value as its neighboring countries. An order-of-magnitude estimate of the annual FOB market value for the "top-10" admissible commodities exported from other countries in Central America is US \$817 million. With the support of an effective export program, Nicaragua's exporters could likely capture \$50 million of this total market value.

Nicaragua's ability to compete in external, fresh fruit and vegetable markets is constrained by a number of factors:

- A lack of knowledge and information on post-harvest management, and marketing.
- The limited availability in Nicaragua of facilities and equipment for pre-cooling, cold storage and transporting fresh products.
- Inadequate farm to market roads, particularly in the highlands areas.
- The lack of port facilities on Nicaragua's Atlantic coast.
- Limited availability of capital for new agribusinesses.
- Economic and political uncertainty in the country, which discourages foreign investment.

Three major opportunities exist for fresh fruit and vegetable exports:

- The production and export of high-volume commodities shipped in refrigerated containers as ocean freight. Priority should be given to shipments through Pacific ports to western US markets.
- The production and export of high-value commodities shipped as air cargo to the United States.
- Organic production and marketing of these high-volume and high-value commodities.

The following recommendations are presented for the consideration of ARAP's managers, its collaborating organizations and by USAID:

- 1) ARAP should encourage and support efforts by the Nicaraguan Government to apply for admissibility into the United States for citrus fruit, papaya, pigeon peas and certain culinary herbs and spices.
- 2) ARAP should also support and encourage the Nicaraguan Government to apply for admissibility of a number of exotic, tropical fruit items for which markets exist in the United States.
- 3) ARAP, as well as any USAID-funded successor projects should assist Nicaragua exporters of fresh fruit and vegetables to realize their full export potential by helping to remove the constraints that hamper exports. This would be realized through a comprehensive program to support private, as well as public sector initiatives for the development of private agribusinesses in Nicaragua.

II. Introduction

A. Study Requirements

The Nicaragua Agricultural Reconstruction & Assistance Program (ARAP) requested an agribusiness consultant with experience in traditional and non-traditional agricultural exports from Latin America to analyze possible means for expanding the export of horticultural products from Nicaragua, with particular emphasis on United States import permit requirements. The consultant conducted this study over a seventeen-day period during October - November 2001. In carrying out the study, he interviewed officials at the United States Department of Agriculture - Animal and Plant Health Inspection Service (USDA-APHIS) in Riverdale, Maryland and conducted extensive Internet research at the USDA website, and websites of other international organizations. During this period the consultant several days in Nicaragua where he interviewed ARAP project officials, the Cognizant Technical Officer (CTO) responsible for the project at the US Agency for International Development (USAID), senior officials at the Nicaraguan Association of Producers and Exporters of Non Traditional Products (APENN), project managers and technicians at other development projects in Nicaragua, government officials, private exporters, farmers, and horticulture processors. The consultant's Terms of Reference for the study is shown in Appendix VII. A list of persons met is shown in Appendix VIII.

B. Methodology

The study methodology was to first make a side-by-side comparison of those fresh fruit and vegetable commodities that are admissible into the United States from Nicaragua and its four neighboring countries: Costa Rica, El Salvador, Guatemala and Honduras. Second, the consultant compared the export value of the admissible fresh products for the five countries. Finally, he made a similar comparison of export values of those fresh fruit and vegetable commodities that are not admissible from Nicaragua into the United States, but are admissible from other countries in Central America.

The comparison of free on board (FOB) export values between Nicaragua and its neighboring countries for those commodities admissible into the United States gives an indication of the relative market strength of each country, and highlights those export products for which Nicaragua is lagging its neighbors. The comparison of FOB export values between Nicaragua and its neighboring countries for those commodities that are not admissible into the United States from Nicaragua (but are admissible from neighboring countries) determines the opportunity cost to Nicaragua resulting from its inaccessibility to US markets.

Export data for the five countries were obtained from the organization in each country engaged in export promotion.¹ The means used for identifying and comparing export commodities was the *Sistema Arancelario Centroamericano* (SAC). The SAC is composed of ten-digit numbers that are assigned to individual products. The SAC number progressively moves from a general to a specific identification with an increasing number of digits employed.

- a) The first two digits identify the SAC Chapter, or general product classification (e.g. 01 corresponds to "live animals"; 07 identifies "vegetables").
- b) The next two-digit set identifies the product category (e.g. 0102 relates to "live cattle"; 0708 is for "leguminous vegetables").
- c) The third two-digit set identifies the product sub-category (e.g. 0105.11 identifies "roosters and hens", while 07.04.10 means "cauliflower and broccoli").
- d) The fourth two-digit set identifies specific products (e.g. 0103.01.00 relates to "pig brood stock", and 07.09.60.20 identifies "Tabasco Chile").
- e) Finally, the ninth and tenth digits identify the size or condition of the product (e.g. 0103.91.00.00 corresponds to "live pigs under 50 kilograms in weight", and 0803.00.20.90 indicates "dried plantains").

This methodology is considered to be technically sound and utilizes the only source of export data for the five countries that was found readily available. However, a number of weaknesses limit the effectiveness of the SAC data:

1. The SAC coding system is not highly refined. Not all fruit and vegetable products are identified specifically by name, with a code assigned. Many product categories and almost all product sub-categories contain a line item corresponding to "other" commodities that cover many items not otherwise identified.
2. In some cases, a number of commodities are listed within a four-digit product category, but few of these are actually assigned an eight-digit code number, which results in many of the listed items falling into the "other" category by default.
3. In a few cases, a single eight-digit code corresponds to two different commodities, without differentiating between the two items (i.e. 0704.10.00 relates to "cauliflower and broccoli").
4. In a number of cases, the SAC code reported by the different agencies for a particular export commodity was obviously incorrect. For example, several varieties of fresh tropical fruit were reported as exports to the United States, yet the USDA does not allow them into the United States. Many of these items were likely processed/frozen commodities erroneously encoded as fresh products.
5. A large number of commodities contained within the USDA's list of items admissible into the United States are minor produce items (i.e. Swiss chard; yard-long bean) that are not specifically identified by the SAC coding system. These, too, are categorized as "other" commodities.

Despite these limitations on the use of export data, the consultant drew a number of conclusions that are presented in later sections of this report.

¹ For Nicaragua, the source of data was the Asociación Nicaragüense de Productores y Exportadores de Productos no Tradicionales (APENN). For El Salvador, the Centro de Trámites de Exportaciones (CTE) provided export information. The source of the information for Honduras was the Fundación para la Inversión y Desarrollo de Exportaciones (FIDE). For Guatemala, the Asociación Gremial de Exportadores de Productos no Tradicionales (AGEXPRONT) provided the data. Information on Costa Rican exports was obtained from the Promotora de Comercio Exterior (PROCOMER).

C. Export Trade Profile - Nicaragua

The annual US dollar, FOB value of all exports from Nicaragua between 1996 - 2001 is shown in the following table. The decline from 1998 - 2000 is attributed primarily to hurricane Mitch, which struck Nicaragua in October 1998. Although the value of non-traditional exports is gradually increasing, the amount estimated for 2001 (US \$330 million) would be approximately 25 percent below the pre-Mitch level reported for 1997.

Year	Non-Traditional Exports		Traditional Exports		Total Exports	
	FOB Value <u>US\$ mm</u>	% Total <u>Exports</u>	FOB Value <u>US\$ mm</u>	% Total <u>Exports</u>	FOB Value <u>US\$ mm</u>	% Total <u>Exports</u>
1996	411.3	56.0	322.6	44.0	733.8	100.0
1997	437.2	57.0	329.7	43.0	766.8	100.0
1998	264.4	42.6	356.3	57.4	620.7	100.0
1999	250.5	43.0	331.9	57.0	572.6	100.0
2000	287.2	45.6	342.1	54.4	629.3	100.0
2001	192.1	46.8	218.4	53.2	410.5	100.0

2001 figures are partial year, January 1 - July 31

Source: Asociación Nicaragüense de Productores y Exportadores de Productos no Tradicionales (APENN)

The "traditional" category includes exports of coffee, cotton, sugar, tobacco products, marine shrimp, fish, dairy products, sawn logs, and minerals such as gold and silver. Non-traditional exports include newer export commodities such as bananas and other fruit, vegetables, cultured shrimp, milled wood products, and value-added products such as beef and processed food products.

The United States is the largest importer of Nicaragua's export items. A comparison of the FOB value exported by Nicaragua during 2000 to different countries and regions is as follows:

<u>Importing Country/Region</u>	<u>Value</u>	<u>% of Total</u>
USA	237,894.6	37.8
Central America	168,617.1	26.8
Europe	126,326.0	20.1
Canada	25,425.8	4.0
Mexico	23,341.7	3.7
Asia	5,753.1	0.9
Other	41,992.7	6.7
Total	629,351.1	100.0

Source: APENN

Of the entire amount of 2000 exports from Nicaragua to the United States, the ten most important items were the following:

2000 Primary Export Items Nicaragua - United States (\$000)

<u>Rank</u>	<u>Item</u>	<u>Export Value</u>	<u>% Total Exports</u>
1	Coffee	63,048.5	26.5
2	Frozen lobsters and lobster parts	59,755.5	25.1
3	Frozen shrimp	44,792.4	18.8
4	Fresh and frozen meat and meat products	15,248.1	6.4
5	Cane sugar	10,571.0	4.4
6	Fresh and frozen fish and fish products	8,280.0	3.5
7	Gold	7,415.5	3.1
8	Raw sugar	6,688.6	2.8
9	Cigars and tobacco products	5,780.6	2.4
10	Bananas	1,788.7	0.8
	Subtotal	223,368.9	93.9
	Total USA exports	237,894.6	100.0

Source: APENN

III. Analysis

A. Comparison of Agriculture and Food Exports - Nicaragua and Neighboring Countries

Table 1, Annex I compares the export value of agriculture-based products for the year 2000 by product category for Nicaragua, Costa Rica, El Salvador, Guatemala and Honduras. The information in Table 1 is consolidated into three agriculture export categories - animal, vegetable and agro-industrial - and presented below for easy reference.

Agriculture and Food Exports - Nicaragua and Neighboring Countries 2000 (US \$mm)

<u>Country</u>	<u>Animal Products</u> <u>(SAC Chapters 1 - 5)</u>			<u>Vegetable Products</u> <u>(SAC Chapters 6 - 10)</u>			<u>Agro-industrial Products</u> <u>(SAC Chapters 11 - 24)</u>		
	World	USA	%	World	USA	%	World	USA	%
Nicaragua	231.8	129.3	55.8	197.5	69.0	35.0	109.2	24.7	22.6
Costa Rica	160.8	92.9	57.8	963.8	519.1	53.9	420.6	120.6	28.7
El Salvador	47.2	22.2	47.0	319.1	151.4	47.4	19.3	36.2	187.5
Guatemala	N/A	14.8	N/A	N/A	553.1	N/A	N/A	68.8	N/A
Honduras	198.5	183.4	92.4	548.1	326.9	59.7	124.3	38.3	30.8

A review of Table 1, Annex 1 and the underlying data provides the following information:

Nicaragua is a major exporter of animal products (including marine products) to the United States. As shown in the earlier description of its "top 10" export products, most of these exports include fresh and frozen meat, fish, shrimp, and lobster. In the category of agricultural products, two crops - coffee and bananas - are the main commodities exported to the United States. Major agro-industrial exports to the United States include refined and raw sugar and cigars.

Costa Rica is also a major supplier of fresh and frozen ocean fish and crustaceans to the United States, and provides substantial exports of frozen beef. It is also a major exporter of ornamental plants, ferns and cuttings, as well as cut flowers (roses, chrysanthemums and lilies) and orchid plants. Its primary vegetable exports are edible roots (yams, dasheen and cassava) and hard, as well as soft squash. It is the largest exporter of pineapples and bananas from Central America, and it exports substantial quantities of winter melons and watermelons to the United States. In terms of agro-industrial products, it is a major supplier of refined sugar, essential oils, fruit juice concentrate, jams, jellies, hearts of palm and ethyl alcohol to US markets.

Similar to its neighbors to the south, *El Salvador* is a major supplier of ocean fish and lobster to the United States. Coffee is its primary agricultural export, and sugar is its major agro-industrial export. It also exports substantial quantities of sesame seed, dried beans, beer, and ethyl alcohol.

Guatemala's primary exports to the United States are coffee, bananas and plantains, sugar and molasses, fresh and processed fruit and vegetables, waxes and candles, detergents and soaps, cultivated shrimp, tobacco, furniture and other wood products, flowers and foliage and paper/carton products.

Honduras is a substantial exporter of seafood, including cultivated shrimp, ocean fish, frozen lobster tails, tilapia fillet and crabs. Its major agricultural exports include bananas, pineapple, mangos, citrus, melons, watermelons and cucumbers. Its agro-industrial exports consist primarily of sugar cane, molasses, cacao butter, fruit juice concentrate, cigars and tobacco products, and canned tomatoes.

B. Comparison of Fresh Fruit and Vegetable Exports - Nicaragua and Neighboring Countries

A comparison of the value of different categories of fresh products exported from the five Central American countries during 2000 is shown in Table 2, Annex I. The information contained in Table 2 has been consolidated into the general categories of fresh fruit and fresh vegetable exports and is presented in the following table:

2000 Fresh Vegetable and Fruit Exports - Nicaragua and Neighboring Countries (US \$000)

<u>Country</u>	<u>Fresh Vegetables</u>			<u>Fresh Fruit</u>		
	World	USA	% to USA	World	USA	% to USA
Nicaragua	4,607.4	1,064.5	23.1	13,892.6	4,490.6	32.3
Costa Rica	55,942.1	39,027.8	69.8	734,376.8	420,998.2	57.3
El Salvador	598.4	455.8	76.2	916.8	577.7	63.0
Guatemala	78,066.4	28,449.2	36.4	241,288.3	208,370.8	86.4
Honduras	14,885.5	11,636.4	78.2	156,714.9	135,338.8	86.4

Costa Rica is the largest exporter of fruit and Guatemala is the largest vegetable exporter of the five countries considered. Honduras is the third most important exporter of fresh produce, with Nicaragua in fourth place and El Salvador in last place. The following observations are made regarding each country's exports, based on Table 2, Annex I and the underlying data.

Nicaragua

During 2000 the value of fresh vegetable exports from Nicaragua was only US \$4.6 million, with 23 percent destined to the United States. Nicaragua's vegetable exports were primarily edible tubers (e.g. yam; dasheen), onions and tomatoes, with lesser shipments of melons, green beans, okra and celery. A new crop - fresh asparagus - that is exported as air cargo to the United States shows considerable promise. Nicaragua's primary fruit exports were bananas, mangos, plantains and melons. Its leading vegetable and fruit exports for 2000 are shown in the following table:

Primary Fruit and Vegetable Exports from Nicaragua 2000 (US \$mm)

Rank	1	2	3	4	5	6	7	8	9	10
Item	<u>Ban</u>	<u>Mang</u>	<u>Tuber</u>	<u>Plant</u>	<u>Oni</u>	<u>Tom</u>	<u>Melo</u>	<u>Bean</u>	<u>Okra</u>	<u>Cele</u>
Export value	8.78	2.89	2.31	1.31	0.70	0.60	0.55	0.36	0.16	0.14
Value to USA	1.79	2.14	.33	0.00	0.03	0.00	0.53	0.12	0.16	0.14
% to USA	20.4	74.0	14.3	0.0	3.8	0.0	96.1	33.1	99.7	100.0

Legend: Ban = bananas; Mang = mangos; Tuber = root crops; Plant = plantains; Oni = onions; Tom = tomatoes; Melo = melons; Bean = green beans; Okra = okra; Cele = celery

Costa Rica

Costa Rica is the dominant exporter of fresh produce from Central America. Its major export items are bananas and pineapples, which are produced primarily on large plantations and marketed by international agribusiness firms. Costa Rica also exports considerable quantities of melons, watermelons, mangos and raspberries. Its primary vegetable exports include edible tubers, hard, as well as soft squash, and "other" vegetables that are largely composed of fresh culinary herbs and spices.

Primary Fruit and Vegetable Exports from Costa Rica 2000 (US \$mm)

Rank	1	2	3	4	5	6	7	8	9	10
Item	<u>Ban</u>	<u>Pine</u>	<u>Melo</u>	<u>Tuber</u>	<u>Squa</u>	<u>Plant</u>	<u>Mang</u>	<u>Wat Mel</u>	<u>Rasp</u>	<u>Herb</u>
Export value	531.50	121.25	62.85	43.62	9.61	6.24	4.81	4.30	1.26	1.24
Value to USA	301.38	69.67	41.13	29.32	8.34	4.41	0.57	1.86	.99	1.12
% to USA	56.7	57.5	65.4	67.2	86.8	70.7	11.8	43.1	78.7	94.2

Legend: Ban = bananas; Pine = pineapples; Melo = melons; Tuber = root crops; Squa = squash; Plant = plantains; Mang = mangos; Wat Mel = watermelons; Rasp = raspberries; Herb = culinary herbs

El Salvador

Of the five countries considered, El Salvador has the least developed export industry for fresh products. Its total amount of fresh fruit and vegetable exports reported for 2000 was only US \$ 1.5 million. Limes were the primary fresh export, followed by "other" vegetables, composed largely of fresh culinary herbs and spices.

Primary Vegetable and Fruit Exports from El Salvador 2000 (US \$mm)

Item	<u>Limes</u>	<u>Culinary Herbs</u>
Export value	0.71	0.49
Value to USA	0.47	0.44
% to USA	66.0	88.7

Guatemala

As was the case for Costa Rica, bananas are Guatemala's primary export crop. Other important fruit and vegetable exports are melons, melons, cauliflower/broccoli, peas, "other" vegetables (composed largely of culinary herbs and spices), plantains, potatoes, tomatoes, mangos and onions.

Primary Fruit and Vegetable Exports from Guatemala 2000 (US \$mm)

Rank	1	2	3	4	5	6	7	8	9	10
<u>Item</u>	<u>Ban</u>	<u>Melo</u>	<u>Caul</u>	<u>Peas</u>	<u>Herb</u>	<u>Plant</u>	<u>Potat</u>	<u>Tom</u>	<u>Mang</u>	<u>Onio</u>
Export value	167.5	48.2	20.5	10.5	9.7	7.8	7.6	7.6	4.9	4.9
Value to USA	153.1	47.0	14.8	9.0	0.5	2.0	0.04	0.07	3.4	0.7
% to USA	91.4	97.5	72.2	85.7	5.2	25.6	0.5	0.1	69.4	14.3

Legend: Ban = bananas; Melo = melons; Caul = cauliflower; Peas = green peas; Herb = culinary herbs; Plant = plantains; Potat = potatoes; Tom = tomatoes; Mang = mangos; Onio = onions;

Honduras

Honduras is the third largest exporter of fresh vegetables and fruit of the five countries considered, but it lags far behind both Costa Rica and Guatemala. Similar to Costa Rica, its traditional exports of fresh bananas and pineapples are marketed primarily by international agribusiness companies. Honduras also exports substantial quantities of melons, watermelons, garden and lima beans, edible tubers, oranges, eggplant and squash.

Primary Fruit and Fruit Exports from Honduras 2000 (US \$mm)

Rank	1	2	3	4	5	6	7	8	9	10
<u>Item</u>	<u>Ban</u>	<u>Melo</u>	<u>Pine</u>	<u>Bean</u>	<u>Cuke</u>	<u>Wat Mel</u>	<u>Tuber</u>	<u>Oran</u>	<u>Eggp</u>	<u>Sqsh</u>
Export value	103.96	37.60	11.64	3.56	2.75	2.21	1.54	0.61	0.49	0.37
Value to USA	87.10	35.05	11.34	1.79	2.75	1.54	.45	0.06	0.49	0.34
% to USA	83.8	93.2	97.4	50.3	100.0	69.4	29.6	10.4	100.0	91.4

Legend: Ban = bananas; Melo = melons; Pine = pineapples; Bean = green beans; Cuke = cucumbers; Wat Mel = watermelons; Tuber = root crops; Oran = orange; Eggp = eggplant; Sqsh = squash

C. Admissible Fresh Fruit and Vegetables from Nicaragua and Neighboring Countries into the United States

A side-by-side comparison of those fruit and vegetables that the United States Department of Agriculture - Animal Plant and Health Inspection Service (USDA-APHIS) will permit entry into the United States is shown in Tables 1, 2 and 3, Annex II. Table 1 lists the fresh fruit and vegetables that are admissible from Nicaragua, as well as other countries in Central America. Table 2 lists the fresh products that are not admissible from Nicaragua, but are admissible from at least some of the neighboring countries. Table 3 is a consolidation of Tables 1 and 2.

A review of the three tables in Annex II provides the following information:

The list of admissible fresh products from Nicaragua (Table 1, Annex II) contains 43 items. However, a number of plant species are listed in the table (*Brassica* spp; *Chichorium* spp) that covers multiple products, so the actual number of admissible vegetable commodities is greater. Table 1 also specifies "cucurbit" as an admissible product, which covers numerous fruit and vegetables such as hard and soft squash, Chinese vegetables (gourds), bitter melons, cucumbers, cantaloupe melons, honeydews and watermelons. Consequently, around 60 different fresh fruit and vegetable commodities that can potentially be produced in Nicaragua are permitted entry into the United States.

Table 1, Annex II specifies that treatment against harmful pests will be required before certain products can be admitted into the United States. For example, Mangos require heat treatment from an USDA-approved facility, which already exists in Nicaragua. Green beans and peas in pods, as well as yams,

require fumigation with methyl bromide before they are permitted entry. In some cases, cold treatment, instead of fumigation can be used as a means for ensuring against the entry of harmful pests. For some products, such as certain cucurbits, the USDA places limitations on the port of entry into the United States. In the case of Nicaragua, however, the only effect on the importation of cucurbits is that ivy gourd (*Coccinia grandis*) cannot be shipped to Hawaii. Given the long shipping distance to Hawaii and the limited market for ivy gourd in that state, this restriction is of negligible importance to Nicaragua.

The list of fresh products that are not admissible from Nicaragua (but are admissible from at least one of the other Central American countries considered) is shown in Table 2, Annex II. This list contains a total of 56 line items. Of the 56 line items in Table 2, the Animal Plant Health Inspection Service (APHIS) of the US Government is presently conducting pest risk analyses on five commodities (beet, oregano, papaya, parsnip, and tarragon) that will likely lead to their eventual admissibility into the United States. Of the remaining 51 items, many correspond to common leafy vegetables (mustard greens; pak choy) that are produced throughout the year in different regions of the United States. The availability of these commodities in the United States year round makes it extremely unlikely that similar products from Nicaragua could compete in US markets, so their inadmissibility has no practical economic effect on the country's exports. Of those inadmissible products from Nicaragua that are not presently being considered for entry, those with the greatest potential economic impact are the following:

- a) Citrus products: sweet orange, tangerines and grapefruit
- b) Fresh culinary herbs and spices.
- c) Fresh tomatoes
- d) Beets
- e) Pigeon peas

D. Status of Pending Requests for Admissibility of Fresh Products from Nicaragua

USDA-APHIS presently has a backlog of requests from Nicaragua to conduct Pest Risk Assessments (PRAs) on numerous fresh fruit and vegetable commodities to determine their admissibility into the United States. As is the case for those products currently admissible from Nicaragua, the new products may either be a) freely admissible, b) admissible with prior treatment, such as fumigation, or c) admissible for import into certain locations of the United States, only. The additional products for which pest risk analyses are being carried out (or pending) to determine their admissibility from Nicaragua are listed in the following table. Results of the PRAs should be published by the USDA during the coming months. As described in a later section of this report, the completion of a PRA does not necessarily classify the commodity as admissible for importation into the United States. Once the PRA has been completed to identify potential harmful pests, USDA-APHIS must then determine what mitigation factors must be put into effect to minimize the risk.

The following table shows the commodities for which pest risk assessments are pending initiation, presently active, and completed. None of the commodities for which PRAs have been completed are yet admissible into the United States.

Nicaragua Fresh Products for which PRAs are Under Consideration

	<u>Pending PRAs</u>	<u>Active PRAs</u>	<u>Completed PRAs (Products not yet admissible)</u>
Beets	Genep	Longbean	Pityaya
Morrito	Oregano	Pitaya	Lotus
Parsnip	Parsley	Tarragon	German Chamomile

Rosemary	Eggplant	Watercress	Sage
Papaya			Fennel
			Loroco

Source: APHIS website - <http://www.aphis.usda.gov>

E. Comparison of Export Values for Admissible and Non-admissible Products from Nicaragua

The following analysis was carried out to provide an estimate of the opportunity cost to Nicaragua of not having access to US markets for those products described in Table 2. The hypothesis put forward is that a) if Nicaragua's neighboring countries have access to the US market for those commodities that cannot be shipped from Nicaragua, and b) if the neighboring countries have developed viable businesses to export these commodities to the United States, then c) Nicaraguan exporters are denied a business opportunity as a result of the non-admissibility of those products from Nicaragua. The value of the "lost" business would be the opportunity cost to Nicaragua for the inadmissible products.

The following analysis is presented in two parts: a) A comparison of 2000 export values for Nicaragua and its neighboring countries for those commodities that are admissible from Nicaragua, and b) a comparison of 2000 export values for Nicaragua and its neighboring countries for those commodities that are not admissible from Nicaragua for export to the United States. The first comparison indicates the magnitude of the benefits that could potentially be derived if Nicaragua was able to fully compete with its neighboring countries in foreign markets. The second comparison indicates the magnitude of the penalty suffered by Nicaragua as a result of the inadmissibility of some of its horticultural products.

Comparison of export values of admissible products

A comparison of 2000 export statistics by SAC number for Nicaragua and its neighboring countries for the list of admissible products is shown in Table 1, Annex III. Table 3, Annex III lists the admissible products from Central America by their common names and indicates their corresponding SAC numbers.

Summary data from Table 1 is presented as follows:

2000 FOB Export Value of Admissible Fresh Products (US\$ 000)

<u>Country</u>	<u>Fresh Vegetables</u>	<u>Fresh Fruit</u>	<u>Total Fresh Exports</u>	<u>Exports to USA</u>	<u>% USA</u>
Nicaragua	4,008.0	13,711.8	17,719.8	5,529.3	31.2
Costa Rica	56,282.9	732,289.3	788,572.2	452,640.4	57.4
El Salvador	70.6	747.5	818.1	483.9	59.2
Guatemala	49,171.1	236,651.5	285,822.6	235,717.1	82.5
Honduras	5,279.7	155,582.5	160,862.2	139,224.8	86.5
Total	65,641.1	902,331.0	967,972.1	597,878.4	61.8

A number of conclusions can be derived from the above table and its underlying data:

This table confirms the previous comparison of major export commodities: Nicaraguan exporters lag far behind their counterparts in Costa Rica, Guatemala and Honduras in their total exports of admissible products. El Salvador is a minor exporter of these fresh fruit and vegetable items.

Costa Rica not only exports a greater diversity of fresh vegetables than does Nicaragua (Table 1, Annex III), but also its export value for certain crops such as hard squash, soft squash and edible root crops is quite large. Costa Rica's export of fresh fruit is more than 50 times that of Nicaragua, largely due to its fruit exports of plantation crops (bananas and pineapples). Even if the value of Costa Rica's fruit exports from plantation crops was discounted (since they are largely the result of external investment), the value

of other fruit exports (melons, watermelons, mangos and raspberries) was almost US \$80 million in 2000 - still nearly six times the value of Nicaragua's fruit exports.

Exports of this category of fresh vegetables from Honduras in 2000 was nearly one-third greater than those from Nicaragua. While Nicaragua has a greater diversity of fresh vegetable exports than does Honduras, the latter country exports a much greater volume of a fewer number of products. The total value of this category of fresh fruit shipments from Honduras was US \$155 million in 2000, or more than eleven times the value of fruit shipments from Nicaragua. Similar to Costa Rica, much of Honduras' fruit exports are provided by its traditional banana and pineapple plantation crops. If the value of these export crops is discounted, however, other crops such as melons, watermelons, mangos and limes accounted for exports valued at nearly US \$40 million, or two-and-one-half times the value of Nicaragua's fruit exports.

Of the five countries analyzed, Guatemala is the second largest exporter of admissible fresh fruit and vegetables, behind Costa Rica. Unlike its neighboring countries, Guatemala exports substantial quantities of cool weather crops such as cauliflower. Similar to its neighboring countries along the Atlantic coast, it is a major exporter of bananas and melons.

The information contained in Table 1 clearly shows that Nicaraguan exporters do not fully capitalize on the opportunities that currently exist to export admissible fruit and vegetables to the United States, or to alternate markets.

Comparison of exports of non-admissible fresh products

Table 2, Annex III compares the value of exported fresh products that Nicaraguan exporters are not permitted to ship to the United States. The results of Table 2 are consolidated and shown below for easy reference:

2000 Export Value of Fresh Products NOT Admissible from Nicaragua (US\$ 000)

<u>Country</u>	<u>Fresh Vegetables</u>	<u>Fresh Fruit</u>	<u>Total Fresh Exports</u>	<u>Exports to USA</u>	<u>% USA</u>
Nicaragua	597.2	14.0	611.2	0.0	0.0
Costa Rica	214.	745.8	960.0	451.2	47.0
El Salvador	24.5	25.0	49.5	0.2	0.4
Guatemala	7,558.8	673.3	8,232.1	16.3	0.2
Honduras	352.2	1,016.9	1369.1	215.9	15.8
Total	8,746.7	2,475	11,221.9	683.6	6.1

A review of Table 2, Annex III shows the following:

Nicaragua's vegetable exports consisted of fresh tomatoes sold to its neighboring countries, only. Its fruit exports were composed of sweet oranges, also exported to Central America.

Costa Rica's fresh vegetable exports were composed of beets and tomatoes. None of these products were exported to the United States. Its fruit exports were composed of sweet oranges, grapefruit, tangerines and papaya. Only papaya fruit was exported to the United States. The value of these exports was US \$451,000.

El Salvador exported small amounts of sweet oranges to the United States. Small amounts of pigeon peas, radishes, tomatoes and tangerines were exported to neighboring countries.

Fresh vegetable exports from Honduras to the United States included relatively small quantities of pigeon peas and tomatoes. Fresh fruit exports to the United States consisted of grapefruit and sweet oranges. Honduras also exported fresh papaya fruit, but not to the United States.

The conclusions derived from Table 2 is that Nicaragua could potentially benefit if tomatoes, beets, pigeon peas, radishes, papaya and citrus products (grapefruit, sweet oranges and tangerines) were declared admissible for import into the United States.

F. Export Opportunities for Other Fresh Products

As described earlier, Table 2, Annex II, lists a number of fresh herbs and spices that are not permitted entry into the United States from Nicaragua, but are admissible from neighboring countries. Unfortunately, the SAC export data are not sufficiently precise to track the export value of each commodity. However, a comparison can be made of the "all other vegetable" category that is largely composed of culinary herbs and spices (see Table 1, Annex III). These exports for 2000 are shown in the following table:

2000 Comparison of "Other Vegetable" Export Values (US \$000)

<u>Country</u>	<u>Total Exports</u>	<u>USA Exports</u>	<u>% USA</u>
Nicaragua	2.1	0.9	42.9
Costa Rica	1,238.1	1,166.3	94.2
El Salvador	490.9	435.4	88.7
Guatemala	9,682.6	527.4	5.4
Honduras	251.1	250.2	99.6
Total	11,664.8	2,380.2	20.4

As shown by this table, Nicaragua lags far behind its neighboring countries in exporting this category of products. The table strongly suggests that Nicaragua would benefit if a wider range of its culinary herbs and spices could be exported to the United States.

Another category of fresh products for which a substantial market exists in the United States is that of exotic tropical fruit. Under the SAC system, this fruit is classified within the "all other" fruit category and includes guanabana (*Anona suricata*), atemoya (*Anona squamosa*), passion fruit (*Passiflora edulis var. flavicarpa*), granadilla (*Passiflora edulis var. gima*) and pitahaya (*Hylocereus undatus*).

The following table compares the value of "all other" fruit exported during 2000 by the five countries considered (refer to Table 1, Annex III).

2000 Comparison of "Other Fruit" Exports (US \$000)

<u>Country</u>	<u>Total Exports Worldwide</u>
Nicaragua	134.9
Costa Rica	256.7
El Salvador	104.5
Guatemala	339.7
Honduras	25.6
Total	861.4

In general, these fruit varieties are not presently admissible into the United States from any country in Central America. Within this fruit category, USDA-APHIS is presently conducting a PRA for pitahaya. While the process of obtaining USDA approval to import a number of these fruit varieties into the United States would undoubtedly be lengthy, the process should be initiated in light of the good market potential of this fruit category.

G. Constraints to Nicaragua Fresh Fruit and Vegetable Exports

As described in the previous section, exports of admissible fresh fruit and vegetables from Nicaragua in 2000 was only a fraction of the value of similar commodities from either Costa Rica, Guatemala, or Honduras. This indicates that Nicaragua's ability to export these commodities was constrained by other factors, not related to their admissibility into the United States. This section describes the most important constraints on fresh fruit and vegetable exports from Nicaragua.

A number of market studies carried out under the ARAP project identified a series of market opportunities for products which Nicaragua, given its climate, soils and water resources, should have a comparative advantage in production vis-à-vis other Central American countries. However, the technology for post-harvest management (including sorting, grading, packaging, cooling and storage) and marketing for most of these products is not currently known in Nicaragua. These constraints limit the export of admissible fresh products to the United States.

Another constraining factor is that Nicaragua has no Atlantic port, which requires that container shipments to the eastern United States must be routed through Atlantic ports in Costa Rica, Honduras, or Guatemala. This extra haul distance increases the transportation cost to Nicaraguan exporters by approximately US \$1,000 per container load more than the cost to those exporters of similar products in neighboring countries. As a result, Nicaraguan products have a cost disadvantage in eastern markets of the United States.

Since Nicaragua has a suitable Pacific coast port at Corinto, it should be possible for Nicaraguan exporters to effectively compete with fresh produce exporters from neighboring countries, as well as those from South America, in markets located in the western United States. However, Nicaraguan exporters are faced with a chicken-and-egg situation where fresh products are not exported because shipping services are not available, and ships do not make regular calls at Nicaragua's Pacific port because there is little cargo.

Air cargo service from Managua to Miami is reliable, and is relatively low-cost (since most air cargo is inbound to Managua, outbound cargo is treated as back haul and enjoys lower haul rates). However, this benefit is eroded somewhat for distances considerably beyond Miami, since the second leg is charged full fare. Air cargo shipments to Europe are constrained since most continuing air connections must be made in Miami, which increases travel time as well as freight cost. Furthermore, if a commodity is not admissible into the United States, it cannot be trans-shipped through Miami.

Another constraining factor is the lack of post-harvest "infrastructure" - that is, facilities and equipment for pre-cooling, cold storage and transporting fresh products. With the exception of a small hydrocooler for asparagus located at the exporter's farm, there is no pre-cooling equipment in the entire country. Available cold storage facilities are also limited: APENN owns three small cold storage rooms at the Managua airport, and one within the production area at Sébaco. While these are suitable for small export volumes, they would be inadequate for large-scale exports.

In many areas of Nicaragua, farm-to-market roads are deficient. For example, a good market exists in the United States for blackberries, raspberries and strawberries that could be produced in the highlands of Nicaragua. However, the poor condition of the access roads to many producing areas discourages investment since the fruit would suffer excessive damage during transit, thereby reducing its market value.

The limitations on infrastructure, as well as facilities and equipment for packaging, cooling and shipping fresh products is further exacerbated by the limited availability of rural credit in Nicaragua. The country is still recovering from a severe banking crisis that has effectively stopped credit to the agriculture sector. Limitations on long-term credit are a severe constraint to agribusiness investments.

As noted earlier, a large proportion of fresh fruit and vegetable exports from Honduras and Costa Rica is composed of pineapples and bananas, which are plantation crops whose output is controlled by large, international agribusiness firms. A large part of the banana and pineapple exports is the result of direct foreign investments and/or joint ventures made by these firms in the two countries. While it would be possible for Nicaragua to attract similar foreign investors who have access to capital, markets and technology, this is not likely in today's environment of political and economic uncertainty in the country. Specifically, the uncertainty over land tenure and the general administrative chaos that exists regarding land titling makes large-scale agribusiness investments unlikely.

Another factor affecting export commodities is that past economic policies of the Nicaraguan government to support an overvalued exchange rate has encouraged commodity imports at the expense of exports. Furthermore, policies designed to protect small producers of basic grain crops from external competition have encouraged the continued production of grain crops at the expense of other crops, including horticulture. Unhelpful government policies have undoubtedly had a secondary, negative effect on the production and export of fresh fruit and vegetables.

H. Opportunities for the Production and Export of Fresh Fruit and Vegetables

The greatest opportunity for fruit and vegetable exports lies with those commodities that can be produced and shipped in sufficiently large quantities to permit efficient, low cost post-harvest handling and shipping. Fresh fruit and vegetable shipments from Nicaragua to external markets must be competitive with other exporting countries in terms of product quality and delivered cost. Product quality depends on timely and effective farming practices and post harvest handling of these perishable products. Competitive delivered cost must consider not only the cost of crop production, but also the costs of packaging, handling, transportation and marketing of export products. For most fresh fruit and vegetables produced in Central America and marketed in the United States, the cost of packaging, post harvest handling and transportation exceeds the cost of production. Market competitiveness requires an efficient crop production - post-harvest handling - transportation "system".

For Nicaraguan exporters, fresh fruit and vegetable shipments must be developed around an efficient, relatively low-cost means of transport. A general rule of thumb is that regular ocean shipping volumes (even for a relatively short season) of around 20 - 25 containers would be required to divert a ship to a particular port of call. This production-transportation linkage would favor high volume commodities such as bananas, pineapples, mangos, limes, sweet onions, cucumbers, hard and soft squash, cantaloupes, honeydew melons, watermelons and edible root crops such as yams. Given Nicaragua's ready access to Pacific ports, this production-transportation linkage would also favor shipping to markets in the western United States. To overcome the "chicken-and-egg" limitation on exporting through Nicaragua's western port at Corinto, exporters could ship their products through Corinto whenever refrigerated container ships are available. During those periods when ships are not available at Corinto, commodities could be exported through Guatemala's Pacific port at Puerto Quetzal. Eventually, as export volumes increase, shipping lines would routinely call at Corinto.

All the high-volume fresh products listed in the previous paragraph are admissible from Nicaragua into the United States, and can be produced in Nicaragua during the winter season when there is no US production. Other potential high-volume commodities (that are not presently admissible from Nicaragua) include tomatoes, papaya, grapefruit, oranges and tangerines. However, as described earlier, these crops are admissible into the United States from other countries of Central America.

Should Nicaraguan exporters be able to ship admissible fresh products in quantities that approach the value of exports from its neighboring countries, the benefit to the country would be in the hundreds of millions of dollars. The following table provides an estimate of the potential export value to Nicaragua of the "top 10" export commodities from its neighboring countries:

Estimated Market Potential for Nicaragua of Major Admissible Products

<u>Product</u>	<u>Export Potential (US \$mm)</u>	<u>Based On</u>
Bananas	531.1	Costa Rica 2000 exports
Pineapples	121.3	Costa Rica 2000 exports
Melons	62.9	Costa Rica 2000 exports
Yams and other root crops	43.6	Costa Rica 2000 exports
Cauliflower	20.5	Guatemala 2000 exports
Peas	10.5	Guatemala 2000 exports
Squash	9.6	Costa Rica 2000 exports
Plantains	7.8	Guatemala 2000 exports
Mangos	4.9	Guatemala 2000 exports
Onions	4.9	Guatemala 2000 exports
Total	817.1	

As shown by this table, the FOB value of the ten most important export commodities from Central America is approximately \$817 million. How much of this potential market could Nicaraguan exporters reasonably expect to capture in the future? The answer, unfortunately, is “very little” - given the present array of constraints faced by Nicaraguan agribusinesses and exporters, and the country’s general lack of competitiveness in overseas markets, particularly in North America. If, however, Nicaraguan agribusinesses were provided comprehensive, effective development support to make its export horticulture sector more competitive, then it would be reasonable to assume that Nicaraguan exporters could capture the lion’s share of the natural growth of these exports to Central America’s traditional markets. Assuming a) a two percent annual growth rate in exports of the “top ten” commodities and that b) Nicaragua would capture 60 percent of the value of the annual increase, within a five-year period, the annual value of Nicaraguan exports of these ten items would have increased by approximately US \$50 million over current levels. This appears to be a reasonable goal for Nicaraguan exporters of horticultural products.

A second area of opportunity for fresh fruit and vegetable exports is the result of the availability of reliable and relatively low-cost air cargo service between Managua and Miami. This export scenario follows the model provided by fresh asparagus: Asparagus is grown near Managua, Nicaragua's capital city, where it is harvested, packed, pre-cooled and delivered to the international airport. It is held in cold storage at the airport for shipment as air cargo to the United States, to be marketed by specialized brokers. In addition to asparagus, other high value crops for which this model would be appropriate include fresh berries (raspberries, black berries, blue berries and strawberries) and fresh herbs (basil, oregano, rosemary, thyme, sage, savory, etc.).

A third category of potential fresh fruit and vegetable exports is a subset of the two export scenarios described in the previous paragraphs: organic production. Organic products are shipped in the same manner as traditional commodities, and for US import requirements, organic fresh products are treated the same as traditional fresh products. Given the accelerating demand and premium prices paid in US markets for organic fruit and vegetables, organically grown commodities provides a good opportunity for Nicaraguan exporters. However, their production and certification processes are much more demanding than traditional fresh products.

I. Estimated Opportunity Cost to Nicaragua for Inadmissible Products

The following estimates are based on the export value of those primary fresh products that are not admissible into the United States from Nicaragua, but are admissible from neighboring countries. The underlying assumption is that Nicaragua would be capable of exporting similar products of equal value if it had access to the U.S. market².

Estimated Annual Opportunity Cost to Nicaragua of Inadmissible Products

<u>Product</u>	<u>Estimated Cost (US \$000)</u>	<u>Based On</u>
Beets	30	Costa Rica 2000 exports
Grapefruit	400	Honduras 2000 exports
Sweet orange	600	Honduras 2000 exports
Tomato	7,600	Guatemala 2000 exports
Papaya	660	Guatemala 2000 exports
Pigeon pea	50	Honduras 2000 exports
Fresh herbs	9,680	Guatemala 2000 exports
Total estimate	19,020	

As noted earlier, the ability of Nicaragua's exporters to capture external markets for these commodities will be dependent on their competitiveness vis-à-vis other suppliers, in terms of product quality and delivered cost. For example, tomatoes exported to the United States from Nicaragua during the winter season must compete with tomatoes from Mexico; fresh herbs must compete with similar products from Guatemala and Costa Rica, and fresh papaya fruit must be competitive with production from Hawaii. Consequently, to the extent that Nicaragua can establish a competitive advantage for these products in export markets, its shipments could far exceed the estimate of US \$19 million per year.

In addition to the above items, export markets exist for fresh, exotic tropical fruit produced in Nicaragua. The consultant's estimate of the potential export value of this fruit category is shown in the following table:

Estimated Annual Market for Fresh, Exotic Tropical Fruit Produced in Nicaragua

<u>Product</u>	<u>Estimated Market (US \$000)</u>	<u>Based On</u>
Pitaya fruit	1,000	ARAP project estimate
Other exotic tropical fruit	4,000	Consultant's estimate
Total estimate	5,000.0	

In summary, the estimated, potential FOB value of Nicaraguan exports of inadmissible fresh fruit and vegetable products is slightly more than US \$24 million. Of this total amount, approximately US \$19 million correspond to those fresh exports from neighboring countries that are permitted entry into the United States. The remaining amount of approximately US \$5 million is the estimated potential FOB value for fresh, exotic tropical fruit exports from Nicaragua.

² Note that this analysis considers the total export values of the different commodities, and does not limit the value of potential exports to the amount shipped to the United States. The reason is because once an export market exists within a particular country, it can serve as a platform for expanding exports to other countries.

J. Procedures for Obtaining US Approval to Import Fresh Fruit and Vegetables

The importation of fresh fruit and vegetables into the United States is subject to the requirements described in "Quarantine 56" of the US Code of Federal Regulations (CFR), otherwise known as CFR Title 7, Volume 5, Part 319.56 through 319.56-8, Fruit and Vegetables. As specified in Part 319.56-3 of the regulations, a person must apply, in advance of any proposed shipment, for a permit to import any fruit or vegetables that are already authorized entry under the regulations. The application must include information such as the country or locality of origin of the fruit or vegetables, the port of first arrival, and the name and address in the United States of the importer to whom a permit would be issued. Since the commodity is admissible, a permit for importation will normally be issued. A copy of the procedures governing the importation of admissible fruit and vegetables is shown in Annex IV. Annex V provides a listing of web sites and contact information for APHIS officials who can be consulted for additional information on USDA operating procedures and the status of pest risk assessments carried out in support of applications to import fresh fruit and vegetables into the United States.

A US importer would normally request an import permit, although a foreign government may submit a request on behalf of its exporting community. Requests for import permits can be made directly to the responsible officer at USDA/APHIS in Maryland, or the request can be submitted to APHIS online, through the Internet (Annex V).

Import permits are issued free of cost, and are valid for five years. Once a permit has been issued, it is not necessary for the importer to re-apply for subsequent shipments, providing there is no special treatment for the permitted fruit or vegetable. If a commodity must receive treatment as a condition for entry, USDA will include treatment instructions within the conditions of the approved permit. For each shipment, importers must provide a copy of the approved permit to the PPQ officials at the port of entry, along with the notice of arrival.

If a commodity is not admissible and if USDA-APHIS does not have available a currently accurate pest risk assessment (PRA) for the commodity in the location where it is grown, a PRA must be prepared before a decision is made about the enterability of the particular commodity. The purpose of the PRA is to determine what pest risks would be associated with the importation of a particular commodity. If the PRA reveals that importation of the commodity into the United States would result in an unacceptable level of risk of introduction of a plant pest, then APHIS must determine whether the risks can be mitigated to an acceptable level. If the risks can be so mitigated, then USDA would issue a proposed rule to amend the fruit and vegetable regulation to allow importation under specified conditions.

APHIS receives an overwhelming number of requests for evaluation of the enterability of fruits and vegetables commodities. The increasing volume of these requests has significantly lengthened the time frame within which these requests can be answered. One of the APHIS officials contacted by the consultant conducting this study estimated that there is presently a three-year backlog of requests for PRAs. Consequently, APHIS is offering requestors the opportunity to expedite responses by assisting the Plant Protection and Quarantine PRA process. Requestors now have the option of conducting the pest risk assessment according to the PPQ/ PRA guidelines or contracting private parties to conduct the PRA. Completed PRAs are then submitted to APHIS for review and response. Alternatively, requestors may choose not to complete the PRA, but still aid the PRA process significantly by providing a list of pests known to attack the commodity plant species in the area from which the commodity is to be exported. Thus, by helping to conduct the PRA, the potential exporter can greatly speed the analytical process that APHIS must follow. In addition, requestors should stay in frequent contact with the APHIS/PPQ official responsible for conducting the analysis. Contact information for the APHIS official with general responsibility for PRAs is shown in Annex V.

The entire process of conducting pest risk assessments, analyzing the results, and mitigating risk is known as a pest risk analysis. Pest risk analyses are carried out by APHIS under the responsibility of its Plant

Protection and Quarantine (PPQ) Programs. Under USDA Guidelines³, an overall pest risk analysis should be carried out in three states. The pest risk assessment (PRA) is carried out as the second of the three stages. The three stages of a pest risk analysis are the following:

- a) Initiating the process for analyzing pest risk (identifying pests for which the PRA is needed, and their means for entering and spreading).
- b) Assessing pest risk by determining which potential harmful pests can be introduced and characterized in terms of likelihood of entry, establishment, spread and economic importance.
- c) Develop means to manage pest risk by formulating, evaluating, comparing and selecting options for dealing with the risk.

PPQ conducts pest risk assessments at both the qualitative and quantitative levels. The quantitative assessment examines pests in greater detail and typically utilizes field trials to provide information on the likelihood of introduction.

Qualitative Assessment

Under the guidelines, PPQ completes seven basic steps in its pest risk assessments:

1. *Document the initiating events for the PRA:* This step sets forth the reasons for conducting a pest risk analysis. For example, the importation of a particular commodity from a specific area provides a potential danger of introducing plant pests into the United States.
2. *Assess weediness potential:* This step screens the commodity being imported in terms of its risk as a weed pest. This considers whether the species is new to, or not widely prevalent in the United States, and if it is generally classified as noxious weed.
3. *Compile background information:* This considers information such as previous risk assessments, current status of importation of the commodity, and pertinent pest interceptions. For example, previous pest risk assessments from the same country/region for the same, or related commodity are identified. If there is an existing risk assessment that adequately assesses the risks in question, the risk assessment stops. Current importation of similar commodities from other countries are analyzed, as well as other commodities being imported from the same country. Pertinent pest interceptions at US ports of entry are also documented.
4. *Pest categorization and identification:* This step begins with a comprehensive listing of potentially damaging pests known to occur in the country or region from which the commodity is to be exported, including those known to be associated with the parent species of the proposed export commodity. Pertinent information must be included for each pest, including a) its scientific name, b) literature references, c) its regulatory status, as determined by APHIS or other US Agencies, d) the pest biology, life history and climatic tolerance, e) geographic distribution, and f) history of interceptions at US ports. Once known pests have been categorized, those pests likely to enter the United States with the related commodity must be identified.
5. *Assessment of consequences of introduction:* After identifying those potentially harmful pests that could reasonably be expected to enter the United States with commodity shipments, the PRA continues by considering the potentially negative impacts resulting from their introduction. The potential consequences are rated using five Risk Elements. These elements reflect a) the interaction of the climate with host plants in the new area, b) the range of host plants in the new area, c) the dispersal potential of the pest, d) the direct and indirect economic impact of introducing the pest, and

³ *Guidelines for Pathway-Initiated Pest Risk Assessments*, USDA, APHIS, PPQ, Permits and Risk Assessment, Commodity Risk Analysis Branch, October 17, 2000

- e) the potential environmental damage caused by the pest in the new area through factors such as ecological disruptions and reduced bio-diversity.
6. *Pest opportunity*: This step considers the pest's likelihood of survival and its access to suitable habitat and hosts in the new area. Factors to be considered in this analysis are a) the quantity of the proposed commodity that is imported annually into the United States, b) the likelihood that the pest would survive postharvest treatment, c) the likelihood that the pest would survive under normal shipping conditions, d) the probability that the pest would not be detected at the port of entry, e) the amount of the imported commodity that would be subsequently moved to an area with an environment suitable for pest survival, and f) the availability of suitable plant hosts in the new location to permit the pest's reproduction.
7. *Determine pest risk potential and identify phytosanitary measures*: Based on the results of the analyses carried out under the previous six steps, a cumulative assessment is made for the likelihood of introduction of the pest into the United States. Under this step, the Pest Risk Potential is rated as low, medium, or high. For low risk potential ratings, specific mitigation measures would normally not be required; inspections at the port of entry of the commodity would provide sufficient phytosanitary security. For medium risk potential ratings, specific phytosanitary measures (i.e. fumigation) may be necessary. For high-risk potential ratings, specific phytosanitary measures are normally required.

Quantitative Assessment

The purpose of a quantitative assessment is to determine if the imported commodity is a host to harmful pests under field and laboratory conditions, and to provide guidance on mitigation procedures. Field evaluations and laboratory testing are carried out concurrently. The quantitative assessment provides information to assess the likelihood of introduction of the pest into the United States, carried by the imported commodity. This supplements the information obtained from the qualitative assessment as described in step 6 of the previous section.

Field evaluations

Field evaluations and laboratory testing typically include the following activities:

- a) Samples of the ripe commodity are taken during the harvest season. To cover any variations in natural pest populations, samples are taken during the early season, mid-season and late season harvests.
- b) Samples of a predetermined number of ripe fruit are taken at random during the three harvests for laboratory examination. In addition, during field sampling a certain number of fruits will be examined in the field. Any fruit showing possible insect marks will be examined in the laboratory for the presence of larvae. An additional fruit sample will be held in the laboratory and examined at weekly intervals for the presence of insect larvae and puparia.
- c) Continuous trapping of insects will be carried out in the producing area throughout the harvest season. Twin traps will be placed on every hectare of a sample area amounting to ten percent of the plantation. The traps will be baited with solutions to attract insects.

Laboratory testing

Laboratory tests will be carried out to determine if insect infestation can be forced in the ripe commodity. Healthy fruit, as well as artificially damaged fruit is exposed to insect pests and the rate of infestation is monitored. Laboratory tests will be conducted during three phases termed early season, mid-season and late season to correspond to the field sampling. Fruits harvested during the field sampling are used to compare with the laboratory tests.

Different species of insects to be used in the laboratory experiments will be collected and held in a favorable environment to create insect colonies. Upon reaching maturity the insects are utilized for the forced infestation tests inside the laboratory.

The forced infestation tests consist of placing a fixed number of pieces (say, 10) of the trial commodity in an enclosed cage containing a specified number of (e.g., 200) insect pests. In addition to the trial commodity, fruits that are known hosts of the insect pests are also placed in the test cage. At the end of the trial period the number of oviposition holes and insect larvae found in the trial commodity as well as the known host fruits are recorded.

A second treatment is conducted in a similar manner, except that no known host fruit is present. This is to ensure that the insect pests have the opportunity to infest the trial commodity without being influenced by the presence of the known host fruit.

The results of the field trials and the laboratory tests supplement the information derived from the qualitative pest risk assessment described in the previous section.

In view of the intensive study and the complexity of the analyses required for the PRAs, several years' effort may be needed to obtain approval to import a particular commodity into the United States.

After Completion of the Pest Risk Analysis

Once the pest risk analysis has been completed for a given commodity and the decision made as to the treatment required to minimize the perceived risk of introducing new pests, PPQ begins the process of writing the proposed rules under which the commodity can be imported. The rule drafted by the PPQ is subjected to an intensive internal peer review, as well as an external review by agencies such as the Office of Management and Budget (OMB). The process of reviewing and re-drafting the proposed rule takes, on average, eighteen months to complete. The proposed rule is then published in the Federal Register, and is available for comments by the general public for a period of 60 days. After the comments are addressed, the final rule is published in the Federal Register and becomes effective within a thirty-day period.

A flowchart summarizing the entire process is shown in Annex VI.

IV. Conclusions and Recommendations

A. Conclusions

The analysis of possible produce and marketing opportunities for Nicaragua led to the following conclusions:

Nicaragua does indeed lag its neighbors in terms of the admissibility of its fresh fruit and vegetables into the United States. There is a need to pursue the admissibility of additional fresh produce items from Nicaragua, to provide this country with equal opportunities to access US markets that its neighboring countries have. Priority crops include citrus (grapefruit, sweet oranges and tangerines), papaya, beets, tomatoes, pigeon peas, and fresh culinary herbs. Nicaragua would undoubtedly derive positive, long-term economic benefits should these commodities become admissible as imports into the United States. Based on the value of these exports from neighboring countries, the potential annual benefit to Nicaragua would be approximately US \$19 million.

There is a need to pursue admissibility into the United States for other fresh fruit items for which market opportunities exist. Fresh, exotic tropical fruit such as guava, sweetsop, soursop, sapodilla, quince, lychee, and mangosteen enjoy an increasing demand in US markets. Few of these products are presently admissible into the United States from any country in Central America. Within this fruit category, the USDA is presently conducting PRAs on only two items that will benefit Nicaragua: Rambutan and Pitahaya. Should fresh, exotic fruit items become admissible into the United States, the potential economic benefit to Nicaragua is estimated to be US \$5 million annually.

Far greater benefits would accrue to Nicaragua if its exporters were capable of exporting admissible products of equal value as its neighboring countries. An order-of-magnitude estimate of the FOB market value for the "top-10" admissible commodities exported from other countries in Central America is US \$817 million. Of this total market value, Nicaraguan exporters could likely capture around \$50 million annually, provided that an internationally-funded program to support export horticulture was put into effect.

Nicaragua's ability to compete in external markets is constrained by a number of factors:

- A lack of knowledge and information on post-harvest management, handling and marketing of fresh products.
- The limited availability in Nicaragua of facilities and equipment for pre-cooling, cold storage and transporting fresh products.
- Inadequate farm to market roads, particularly in the highlands areas.
- The lack of port facilities on Nicaragua's Atlantic coast requires that products from Nicaragua are shipped through ports in neighboring countries, thereby increasing their delivered cost to eastern US markets and reducing their competitiveness.
- Institutional weakness in the banking sector severely limits the availability of capital for new agribusinesses. Rural credit is generally not available. This severely slows the development of fresh fruit and vegetable exports.
- Past economic policies of the Nicaraguan Government have worked to favor imports at the expense of exports, and the present economic and political uncertainty in the country discourages foreign investment.

Provided that the production - export commodity chain can be effectively managed by Nicaraguan exporters, three major opportunities exist for fresh fruit and vegetable exports:

- The production and export of high-volume commodities such as cantaloupes, watermelons, honeydews, hard and soft squash, edible tubers and cucumbers shipped in refrigerated containers as ocean freight. Since Nicaragua has no Atlantic port, it is at a disadvantage in eastern US markets compared to its neighboring countries. Consequently, priority should be given to shipments through Pacific ports to western US markets.
- The production and export of high-value commodities such as asparagus, berries, culinary herbs and spices and snow peas that are stored under refrigeration and shipped as air cargo to the United States. These shipments would take advantage of favorable air cargo rates between Managua and Miami.
- Organic production of any of these high-volume and high-value commodities.

B. Recommendations

The following recommendations are presented for the consideration of ARAP's managers over the project's remaining life. Given the short, remaining life span of ARAP, the activities should also be considered for implementation by ARAP's collaborating organizations and partners. Longer-term

activities are also presented for consideration by USAID as follow-on work after the ARAP project ends later this year.

ARAP and/or its local partners should maintain frequent contact with USDA-APHIS to encourage timely action on the PRAs that are presently underway. The organization presently has a three-year backlog of PRAs, and frequent expressions of interest and concern would help to keep Nicaragua’s commodity list in the forefront of USDA-APHIS activities.

To provide equal access by Nicaraguan exporters to US markets as that of neighboring exporters, ARAP should encourage and support efforts by the Nicaraguan Government to apply for admissibility for the following items (these are in addition to those commodities for which PRAs are presently underway):

Recommended Commodities for Admissibility Applications

<u>Fruit</u>	<u>Vegetables</u>	<u>Culinary herbs and spices</u>	
Grapefruit	Pigeon peas	Chervil	Fennel
Sweet oranges		Dill	Savory
Tangerines		Oregano	

ARAP should also support and encourage efforts by the Nicaraguan Government to apply for admissibility for the following exotic, tropical fruit items for which markets exist in the United States. For greater efficiency and to favorably impact the entire Central American peninsula, regional PRAs should be conducted for these commodities whenever possible:

Recommended Exotic Tropical Fruit for Admissibility Application

Mangosteen	Passion fruit	Guava
Sugar apple (Sweetsop)	Sapodilla	Durian
Granadilla	Anonas (<i>Annona squamosa</i>)	Lychee

- 4) ARAP, and any USAID-funded successor projects should assist Nicaragua exporters of fresh fruit and vegetables to realize their full export potential by working to remove the constraints that hamper exports. This would be realized by supporting private, as well as public sector initiatives for the development of private agribusinesses in Nicaragua. A comprehensive program is recommended to provide a) access to technology, information and equipment on crop production and post-harvest handling of export commodities, b) market linkages and marketing information, c) investment promotion and linkages with foreign and local investors, d) business services, including training and consulting services to solve technical, as well as management problems, e) financial linkages, and support to provide “bankable” investment proposals, and f) policy analysis and advocacy to improve the agribusiness investment climate.

CHEMONICS INTERNATIONAL, INC

SAC Code	Description	Nicaragua			Costa Rica			El Salvador			Guatemala			Honduras		
		World	USA	%	World	USA	%	World	USA	%	World	USA	%	World	USA	%
01	Live animals	25,180.6	282.1	1.1	1,259.3	403.6	32.1	4,434.0	453.3	10.2	N/A	61.5	N/A	366.9	95.9	26.1
02	Meat	55,603.0	15,248.1	27.4	34,498.3	12,956.2	37.6	5,635.5	6.2	0.1	N/A	2.8	N/A	2,105.4	625.8	29.7
03	Fish and Seafood	127,845.7	113,185.5	88.5	102,876.0	79,216.0	77.0	23,561.9	21,289.0	90.4	N/A	14,775.1	N/A	192,267.9	181,972.1	94.6
04	Dairy, eggs, honey	22,805.8	584.5	2.6	20,564.4	184.1	0.9	13,256.2	385.4	2.9	N/A	5.3	N/A	3,685.4	731.1	19.8
05	Other of animal origin	398.4	0.0	0.0	1,600.9	128.9	8.1	305.1	59.6	19.5	N/A	1.0	N/A	39.3	0.0	0.0
Subtotal	Animal products	231,833.5	129,300.1	55.8	160,798.8	92,888.8	57.8	47,192.7	22,193.6	47.0	N/A	14,845.7	N/A	198,464.8	183,424.9	92.4
06	Live trees and plants	1,089.5	101.2	9.3	141,744.1	47,699.4	33.7	2,394.7	1,085.5	45.3	N/A	23,206.3	N/A	4,799.5	1,924.1	40.1
07	Vegetables	10,916.7	1,130.4	10.4	56,927.8	39,226.3	68.9	7,381.5	5,403.8	73.2	N/A	42,261.8	N/A	23,766.9	11,736.4	49.4
08	Edible fruit and nuts	14,468.1	4,499.1	31.1	746,457.7	428,921.2	57.5	5,072.6	3,942.6	77.7	N/A	210,442.0	N/A	175,767.5	149,353.7	85.0
09	Spices, coffee and tea	170,922.7	63,299.8	37.0	17,823.7	3,242.2	18.2	300,018.4	140,927.9	47.0	N/A	277,182.7	N/A	343,153.3	163,779.0	47.7
10	Cereals	53.9	7.7	14.3	862.0	2.2	0.3	4,200.5	0.0	0.0	N/A	10.7	N/A	564.2	125.7	22.3
Subtotal	Agricultural Products	197,450.8	69,038.2	35.0	963,815.3	519,091.3	53.9	319,067.7	151,359.7	47.4	N/A	553,103.5	N/A	548,051.3	326,918.9	59.7
11	Milling, malt, starch	806.7	9.3	1.2	10,100.8	11.8	0.1	9,523.8	140.0	1.5	N/A	17.2	N/A	796.5	5.9	0.7
12	Misc. grains, feed, fruit	32,948.3	820.1	2.5	12,893.2	6,879.7	53.4	3,768.5	2,684.6	71.2	N/A	15,516.9	N/A	2,044.3	694.9	34.0
13	Lac, vegetable sap, extract	0.0	0.0	n/a	7,778.4	7,257.5	93.3	684.0	136.8	20.0	N/A	0.0	N/A	1,565.3	255.8	16.3
14	Other vegetable	10.8	3.4	31.3	34.2	17.0	49.6	86.5	49.9	57.6	N/A	372.7	N/A	39.1	0.3	0.8
15	Fats and oils	653.1	40.6	6.2	44,548.5	52.1	0.1	15,369.0	79.3	0.5	N/A	101.8	N/A	32,205.2	3,770.4	11.7
16	Prepared meat, fish, etc.	3,338.3	40.6	1.2	18,750.7	70.8	0.4	1,410.5	30.6	2.2	N/A	0.0	N/A	11.4	2.0	17.7
17	Sugars	36,301.5	17,273.3	47.6	43,555.1	19,376.3	44.5	69,897.0	15,793.7	22.6	N/A	31,980.7	N/A	22,768.7	9,847.9	43.3
18	Cocoa	180.9	8.1	4.5	7,897.4	316.5	4.0	2,870.3	168.8	5.9	N/A	7.8	N/A	5,848.6	4,585.6	78.4
19	Baking related	4,653.7	27.5	0.6	25,631.5	523.9	2.0	25,802.2	2,070.3	8.0	N/A	270.5	N/A	3,013.9	73.9	2.5
20	Preserved food	166.5	9.2	5.6	130,251.4	56,417.3	43.3	10,998.9	1,578.0	14.3	N/A	4,113.5	N/A	30,725.0	10,433.2	34.0
21	Miscellaneous food	11,143.3	460.5	4.1	84,942.0	9,264.6	10.9	41,378.3	3,984.3	9.6	N/A	4,424.8	N/A	10,144.3	5.1	0.1
22	Beverages	4,016.7	198.4	4.9	23,014.3	17,745.4	77.1	28,125.6	9,500.4	33.8	N/A	930.0	N/A	867.9	718.7	82.8
23	Food waste; animal feed	2,011.7	0.0	0.0	5,713.5	0.1	0.0	2,506.9	0.2	0.0	N/A	0.1	N/A	757.9	0.1	0.0
24	Tobacco	12,943.1	5,780.6	44.7	5,496.5	2,679.9	48.8	51.5	0.2	0.3	N/A	11,020.5	N/A	13,500.0	7,915.2	58.6
Subtotal	Agroindustrial products	109,174.7	24,671.4	22.6	420,607.5	120,612.9	28.7	212,473.2	36,216.9	17.0	N/A	68,756.4	N/A	124,288.0	38,309.0	30.8
Total Food		538,459.0	223,009.7	41.4	1,545,221.6	732,593.0	47.4	578,733.6	209,770.2	36.2	N/A	621,865.2	N/A	870,804.2	548,652.8	63.0

SAC	Description	Nicaragua			Costa Rica			El Salvador			Guatemala			Honduras		
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Annex I

Table 2: Comparison of Export Value of Fresh Fruit and Vegetables to the World and to the USA by Product Category for Five Central American Countries - Year 2000 (US \$000)

Code	World	USA	%	World	USA	%	World	USA	%	World	USA	%	World	USA	%
0701 Potato, n sweet, fr/chilled	0.0	0.0	N/A	77.9	6.3	8.1	17.7	0.9	4.9	7,628.6	0.0	0.0	2,323.9	2,322.5	99.9
0702 Tomatoes fresh/chilled	597.2	0.0	0.0	178.3	0.0	0.0	7.7	0.0	0.0	7,558.8	0.1	0.0	304.3	11.9	3.9
0703 Onion, shallot, garlic, etc.	697.1	26.8	3.8	178.8	0.0	0.0	16.2	0.0	0.0	5,442.6	982.1	18.0	1.3	0.0	0.0
0704 Cabbages, cauliflower, etc.	21.8	0.0	0.0	135.6	7.9	5.9	28.9	0.0	0.0	24,127.0	14,802.1	61.4	0.3	0.0	0.0
0705 Lettuce; chicory, fr/chilled	0.0	0.0	N/A	32.3	0.0	0.0	0.0	0.0	N/A	2,516.0	546.0	21.7	23.4	0.0	0.0
0706 Carrots, turnips, other roots	0.1	0.1	100.0	453.6	0.0	0.0	4.9	0.0	0.0	2,631.3	215.9	8.2	0.0	0.0	0.0
0707 Cucumbers, gherkins, fr/chilled	70.7	65.4	92.6	2.8	0.0	0.0	0.0	0.0	N/A	1,107.7	293.5	26.5	2,747.8	2,747.8	100.0
0708 Leguminous vegetables	359.6	119.0	33.1	91.0	0.0	0.0	18.4	6.5	35.4	12,209.6	10,036.3	82.2	3,610.4	1,817.9	50.4
0709 Other vegetables, fr/chilled	546.2	521.7	95.5	11,171.5	9,694.6	86.8	504.6	448.4	88.9	14,711.9	1,572.8	10.7	4,368.7	4,286.3	98.1
0714 Cassava, Arrowroot, etc.	2,314.5	331.4	14.3	43,620.3	29,318.9	67.2	0.0	0.0	N/A	132.9	0.5	0.4	1,505.5	450.0	29.9
Subtotal vegetables fr/chilled	4,607.4	1,064.5	23.1	55,942.1	39,027.8	69.8	598.4	455.8	76.2	78,066.4	28,449.2	36.4	14,885.5	11,636.4	78.2
0803 Bananas; plantains	10,113.5	1,788.9	17.7	538,092.1	305,800.0	56.8	8.9	0.0	0.0	178,074.7	155,102.3	87.1	103,985.2	87,111.7	83.8
0804 Dates, figs, pineapples, etc.	2,972.3	2,142.2	72.1	126,610.5	70,567.0	55.7	3.0	0.0	0.0	5,772.0	3,390.0	58.7	11,797.2	11,383.0	96.5
0805 Citrus, fresh or dried	96.1	1.4	1.4	180.6	40.0	22.1	738.4	471.0	63.8	1,231.0	68.3	5.6	1,067.6	235.0	22.0
0806 Grapes, fresh or dried	1.0	0.1	8.0	129.8	0.0	0.0	24.7	1.4	5.8	17.9	1.4	8.0	5.2	0.0	0.0
0807 Melons, papayas, fresh	574.7	531.6	92.5	67,775.0	43,435.2	64.1	22.3	0.0	0.0	52,689.6	47,260.5	89.7	39,834.0	36,588.0	91.9
0808 Apple, pear, quince, fresh	0.0	0.0	N/A	46.3	0.0	0.0	12.8	0.0	0.0	46.8	0.0	0.0	0.0	0.0	N/A
0809 Various fresh fruit	0.0	0.0	N/A	11.3	0.0	0.0	2.3	1.3	56.8	241.1	0	0.0	0.0	0.0	N/A
0810 Other fresh fruit	134.9	26.5	19.7	1,531.1	1,155.9	75.5	104.5	104.0	99.5	3,215.2	2,548.2	79.3	25.6	21.0	82.2
Subtotal fruit	13,892.6	4,490.6	32.3	734,376.8	420,998.2	57.3	916.8	577.7	63.0	241,288.3	208,370.8	86.4	156,714.9	135,338.8	86.4
Total	18,499.9	5,555.1	30.0	790,318.8	460,026.0	58.2	1,515.2	1,033.6	68.2	319,354.7	208,664.2	65.3	171,600.5	146,975.2	85.6

Commodity Name	Nicaragua	Costa Rica	El Salvador	Guatemala	Honduras
Allium spp.	X	X	X	X	X
Artichoke, globe (floral head)	X	L	L	X	L
Asparagus	X	X	X	X	X
Banana	X	X	X	X	X
Basil	X	X	X	X	
Bean, faba (pod)	T				
Bean, faba (shelled)	X				
Bean, garden (<i>Phaseolus vulgaris</i>)		T,L	T	X	T,L
Bean, green (<i>Phaseolus</i> spp) (pod)	T				
Bean, green (<i>Phaseolus</i> spp) (shelled)	X				
Bean, lima		L	X		
Blackberry	X	X		X	X
<i>Brassica oleracea</i>	X	X	X	X	X
<i>Brassica</i> spp.	X		X		
Carrot	X	X	X	X	X
Cassava	X	X	X	X	X
Celery	X	X	X	X	X
<i>Cichorium</i> spp.	X	X		X	
Cilantro	X	X	X		X
Corn, green	X	X	X	X	X
Cucurbit	L	L	L	L	L
Dasheen (tuber)	X	X	X	X	X
Eggplant	X	X	X	X	X
Lettuce	X	X	X	X	X
Lime, sour	X	X	X	X	X
Mango	T	T		T	
Mint	X			X	
Mung bean (pod)	T				
Mung bean (shelled)	X				
Okra	X	X	X	X	X
Palm heart	X	X	X	X	X
Parsley	X	X		X	
Pea (pod)	T	X	X	X	X
Pea (shelled)	X	X	X	X	X
Pineapple	X	X	X	X	X
Radicchio	X				
Raspberry	X	X	X	X	X
Rosemary	X	X		X	
Salsify	X	X	X	X	X
Spinach	X	X	X	X	X

Annex II

Table 1: Agricultural Commodities Approved for Import into the United States from Nicaragua and Certain Other Central American Countries

Commodity Name	Nicaragua	Costa Rica	El Salvador	Guatemala	Honduras
Strawberry	X	X	X	X	X
Thyme	X	X	X	X	X
Turnip	X	X	X	X	X
Yam	T	T	T	T	X
Notes:					
X = Approved for entry into the United States					
T = Treatment required for entry into the United States					
L = Limitations placed on the port of entry of the commodity into the United States.					
Commodity Name	Nicaragua	Costa Rica	El Salvador	Guatemala	Honduras
<i>Acrocomia</i> spp.			X	X	X
Arrowroot		X	X	X	X
Artichoke, jerusalem		L	L	L	L
<i>Artocarpus</i> spp.					X
Arugula		X			
Ayale		X		X	X
Bean, hyacinth (pod)					T
Bean, hyacinth (shelled)					X
Beet		X	X	X	X
Black palm nut			X	X	X
Cacao bean pod		L	L	L	L
Chervil		X			
Chickpea		L			L
Chicory					X
Chinese Kale					
Coconut		X			
Cornsalad					
Dill		X	X	X	
Durian		X	X	X	X
Ethrog		L	L	L	L
False coriander		X			
Fennel		X			
Grapefruit		T,L	T	T	T
Jicama (root)		X		X	
Lemon		L	L	L	L
Loroco				X	
Lotus root				X	
Marang			X	X	X
<i>Mentha</i> spp.		X			
Miner's lettuce		X			
Mustard greens		X			
Naranjilla				L	
Orange, sweet		T	T	T	T
Oregano				X	

Annex II

Table 2: Agricultural Commodities Approved for Import into the United States from Other Central American Countries, but not Nicaragua

Commodity Name	Nicaragua	Costa Rica	El Salvador	Guatemala	Honduras
<i>Origanum</i> spp.		X			
Pak choi		X			
Papaya		L			
Parsnip		X			
Pigeon pea (pod or shelled)		L	L	L	L
Peppercorn, fresh		X			
Plum				T	
Radish (root)				X	X
Rhubarb				X	
Roselle (calix)			X	X	X
Rutabega		X	X	X	X
Sage		X			
Sorrel		X	L	L	L
Summer savory		X			
Swiss chard		X	X	X	X
Tangerine		T	T	T	T
Tarragon		X		X	
Tomato, green		X	X	X	X
Tuna fruit				T	
Watercress		X	X	X	X
Yard long bean (pod)					T
Yard long bean (shelled)					X
Watercress		X	X	X	X
Notes:					
X = Approved for entry into the United States					
T = Treatment required for entry into the United States					
L = Limitations placed on the port of entry of the commodity into the United States.					

Commodity Name	Nicaragua	Costa Rica	El Salvador	Guatemala	Honduras
<i>Acrocomia</i> spp.			X	X	X
<i>Allium</i> spp.	X	X	X	X	X
Arrowroot		X	X	X	X
Artichoke, globe (floral head)	X	L	L	X	L
Artichoke, jerusalem		L	L	L	L
<i>Artocarpus</i> spp.					X
Arugula		X			
Asparagus	X	X	X	X	X
Ayale		X		X	X
Banana	X	X	X	X	X
Basil	X	X	X	X	
Bean, faba (pod)	T				
Bean, faba (shelled)	X				
Bean, garden (<i>Phaseolus vulgaris</i>)		T,L	T	X	T,L

Annex II

Table 3: Agricultural Commodities Approved for Import into the United States from Five Central American Countries

Commodity Name	Nicaragua	Costa Rica	El Salvador	Guatemala	Honduras
Bean, green (<i>Phaseolus</i> spp) (pod)	T				
Bean, green (<i>Phaseolus</i> spp) (shelled)	X				
Bean, hyacinth (pod)					T
Bean, hyacinth (shelled)					X
Bean, lima		L	X		
Beet		X	X	X	X
Blackberry	X	X		X	X
Black palm nut			X	X	X
<i>Brassica oleracea</i>	X	X	X	X	X
<i>Brassica</i> spp.	X		X		
Cacao bean pod		L	L	L	L
Carrot	X	X	X	X	X
Cassava	X	X	X	X	X
Celery	X	X	X	X	X
Chervil		X			
Chickpea		L			L
Chicory					X
Chinese Kale					
<i>Cichorium</i> spp.	X	X		X	
Cilantro	X	X	X		X
Coconut		X			
Corn, green	X	X	X	X	X
Cornsalad					
Cucurbit	L	L	L	L	L
Dasheen (tuber)	X	X	X	X	X
Dill		X	X	X	
Durian		X	X	X	X
Eggplant	X	X	X	X	X
Ethrog		L	L	L	L
False coriander		X			
Fennel		X			
Ginger root	X		X	X	X
Grapefruit		T,L	T	T	T
Jicama (root)		X		X	
Lemon		L	L	L	L
Lettuce	X	X	X	X	X
Lime, sour	X	X	X	X	X
Loroco				X	
Lotus root				X	
Mango	T	T		T	
Marang			X	X	X

Annex II

Table 3: Agricultural Commodities Approved for Import into the United States from Five Central American Countries

Commodity Name	Nicaragua	Costa Rica	El Salvador	Guatemala	Honduras
<i>Mentha</i> spp.		X			
Mint	X			X	
Miner's lettuce		X			
Mustard greens		X			
Mung bean (pod)	T				
Mung bean (shelled)	X				
Naranjilla				L	
Okra	X	X	X	X	X
Orange, sweet		T	T	T	T
Oregano				X	
<i>Origanum</i> spp.		X			
Pak choi		X			
Palm heart	X	X	X	X	X
Papaya		L			
Parsley	X	X		X	
Parsnip		X			
Pea (pod)	T	X	X	X	X
Pea (shelled)	X	X	X	X	X
Pigeon pea (pod or shelled)		L	L	L	L
Peppercorn, fresh		X			
Pineapple	X	X	X	X	X
Plum				T	
Radicchio	X				
Radish (root)				X	X
Raspberry	X	X	X	X	X
Rhubarb				X	
Roselle (calix)			X	X	X
Rosemary	X	X		X	
Rutabega		X	X	X	X
Sage		X			
Salsify	X	X	X	X	X
Sorrel		X	L	L	L
Spinach	X	X	X	X	X
Strawberry	X	X	X	X	X
Summer savory		X			
Swiss chard		X	X	X	X
Tangerine		T	T	T	T
Tarragon		X		X	
Thyme	X	X	X	X	X
Tomato, green		X	X	X	X
Tuna fruit				T	
Turnip	X	X	X	X	X
Watercress		X	X	X	X

Annex II**Table 3: Agricultural Commodities Approved for Import into the United States from Five Central American Countries**

Commodity Name	Nicaragua	Costa Rica	El Salvador	Guatemala	Honduras
Yam	T	T	T	T	X
Yard long bean (pod)					T
Yard long bean (pod)					T
Notes:					
X = Approved for entry into the United States					
T = Treatment required for entry into the United States					
L = Limitations placed on the port of entry of the commodity into the United States.					

CHEMONICS INTERNATIONAL, INC

Admissible Product	Nicaragua		Costa Rica		El Salvador		Guatemala		Honduras	
	World	USA	World	USA	World	USA	World	USA	World	USA
<i>Allium</i> spp.:										
a. Onions	660.9	26.7	95.1	0.0			4,903.3	745.7	1.3	0.0
b. Bunching onions	36.1	0.0	60.1	0.0	0.6	0.0	38.0	0.3		
c. Challots			2.6	0.0			11.2	0.0		
d. Garlic	0.1	0.1	17.7	0.0	15.6	0.0	227.7	40.5		
e. Leeks			3.2	0.0			262.4	195.6		
Artichoke, Globe			764.8	0.0			46.9	5.2		
Asparagus	87.9	87.0	24.3	20.0			380.0	279.5		
Banana	8,779.5	1,788.9	531,496.9	301,379.8	4.3	0.0	167,448.7	153,145.0	103,964.3	87,107.7
Banana (plantain)	1,314.9	0.0	6,240.6	4,412.5	4.5	0.0	7,843.9	1,957.4	20.8	4.1
Basil										
Beans, faba										
Bean, garden & lima			84.7	0.0			944.2	874.7	1,769.9	0.0
			5.3	0.0	6.5	6.5	753.8	115.2	1,792.7	1,792.7
Beans, green	359.6	119.0								
Beans, mung										
Blackberry										
<i>Brassica</i> spp:										
a. Cauliflower	6.9	0.0	75.0	7.7			20,507.5	14,800.3		
b. Broccoli										
c. Brussel Sprouts			1.2	0.0			19.6	0		
d. Other <i>Brassica</i>					28.9	0.0	3,600.0	1.8	0.3	0.0
<i>Brassica oleracea</i>	13.0	0.0							X	
All other <i>Brassica oleracea</i>	2.0	0.1	59.4	0.2						
Carrot			419.5	0.0			1,846.7	77.8	0.0	0.0
Cassava	51.6	0.0	22,657.9	16,390.2					1.5	1.5
Celery	141.2	141.2	27.0	0.0			476.8		1.4	1.4
Cichorium			1,386.1	0.0			547.4	540.8		
Cilantro										
Corn, green	1.9	0.0	70.2	0.4	13.1	13.1	107.7	0.3		
Cucurbit:										
a. Squash (soft)	20.6	19.6	8,515.0	7,346.9	0.6	0.0	833.7	712.4	3.1	0.0

Annex III

Table 1: 2000 Export Value of Fruit and Vegetables Admissible from Nicaragua and Other Central American Countries (US\$000)

Admissible Product	Nicaragua		Costa Rica		El Salvador		Guatemala		Honduras	
	World	USA	World	USA	World	USA	World	USA	World	USA
b. Squash (hard)			1,100.0	999.7			19.2	0.3	372.1	343.2
c. Cucumbers (large)	69.0	65.4	2.8	0.0			1,107.7	293.5	2,747.8	2,747.8
d. Cucumbers (small)	1.7	1.7								
e. Melons	553.2	531.6	62,850.1	41,128.0	0.6	0.0	48,202.3	47,025.8	37,607.5	35,050.0
f. Watermelons	21.5	0.0	4,303.9	1,856.1	21.8	0.0	3,829.7	218.5	2,216.6	1,538.0
Dasheen	2,234.5	322.2	10,265.0	7,803.7					3.7	3.7
Eggplant	134.5	115.5	3.5	0.0			56.8	16.5	489.8	489.8
False Coriander										
Ginger root										
Lettuce, head			22.4	0.0			55.9	0.0		
Lettuce, other			10.0	0.0			1,912.4	5.1	23.4	0.0
Lime	82.2	1.4	54.3	40.0	713.4	470.8	1,215.0	68.1	59.1	56.4
Mango	2,887.8	2,138.0	4,815.3	568.2	2.4	0.0	4,926.6	3,386.2	120.8	42.6
Mint										
Okra	158.0	157.5					0.6	0.1	28.1	28.1
Pea			1.0	0.0	11.9	0.0	10,511.6	9,046.4	47.9	25.2
Pineapple	72.6	4.1	121,253.6	69,666.4	0.2	0.0	309.8	3.8	11,648.1	11,340.4
Radicchio										
Raspberry	0.1	0.1	1,258.1	990.6			2,600.9	2,160.5	0.0	0.0
Rosemary										
Salsify										
Spinach			1.7	0.0						
Strawberry			16.3	1.6	0.4	0.0	274.6	0.0	4.4	0.1
Thyme										
Turnip										
Yam (T)	28.4	9.2	10,697.3	28.4					1,500.2	444.7
Total	17,719.8	5,529.3	788,662.2	452,640.4	824.6	490.4	285,822.6	235,717.3	164,424.7	141,017.4

Annex III

Table 1: 2000 Export Value of Fruit and Vegetables Admissible from Nicaragua and Other Central American Countries (US\$000)

Admissible Product	Nicaragua		Costa Rica		El Salvador		Guatemala		Honduras	
	World	USA	World	USA	World	USA	World	USA	World	USA
Memo items:										
Various spices	2.1	0.9	1,238.1	1,166.3	490.9	435.4	9,682.6	527.4	251.1	250.2
Exotic tropical fruit	134.9	26.5	256.7	163.7	104.5	104.0	339.7	387.7	25.6	21.0

Admissible Product	Nicaragua		Costa Rica		El Salvador		Guatemala		Honduras	
	World	USA	World	USA	World	USA	World	USA	World	USA
Acrocomia										
Arrowroot										
Artichoke, je rusalem			0.8	0.0						
<i>Artocarpus</i> spp.:										
a. Breadfruit										
b. Jackfruit										
Arugula										
Ayale										
Beet			34.1	0.0						
Black palm nut										
Cacao bean pod										
Chervil										
Chickpea										
Chickory										
Chinese Kale										
Coconut										
Cornsalad										
Dill										
Durian										
Ethrog										
False Coriander										
Fennel										
Grapefruit			0.2	0.0			1.4		399.8	115.5
Hyacinth bean			9							
Jicama (root)										

Annex III

Table 2: 2000 Export Value of Fruit and Vegetables from Five Central American Countries NOT Admissible into the United States from Nicaragua (US\$000)

Admissible Product	Nicaragua		Costa Rica		El Salvador		Guatemala		Honduras	
	World	USA	World	USA	World	USA	World	USA	World	USA
Lemon										
Lorocco										
Lotus root										
Marang										
<i>Menthaspp.</i>										
Miner's Lettuce										
Mustard greens										
Orange, sweet	12.5	0.0	118.3	0.0	24.4	0.2	10.3		607.1	63.2
Oregano										
Origanum spp										
Pak choi										
Papaya	0.1	0.0	621.0	451.2			657.3	16.2	10.0	0.0
Parsnip										
Pigeon pea			1.0	0.0	11.9	0.0			47.9	25.2
Piper nigrum (peppercorn)										
Plum										
Radish					4.9	0.0				
Rhubarb										
Roselle										
Rutabega										
Sage										
Sorrel										
Summer savory										
Swiss chard										
Tangerine	1.4	0.0	6.3	0.0	0.6	0.0	4.3			
Tarragon										
Tomato	597.2	0.0	178.3	0.0	7.7	0.0	7,558.8	0.1	304.3	11.9
Tuna fruit										
Turnip										
Watercress										
Yard long bean										

Annex III

Table 2: 2000 Export Value of Fruit and Vegetables from Five Central American Countries NOT Admissible into the United States from Nicaragua (US\$000)

Admissible Product	Nicaragua		Costa Rica		El Salvador		Guatemala		Honduras	
	World	USA	World	USA	World	USA	World	USA	World	USA
Total Exports	611.2	0.0	960.0	451.2	49.5	0.2	8,232.1	16.3	1,369.0	215.9

Admissible Product	SAC Code	Description
Acrocomia		
Allium spp.:		
a. Onions	0703.10.1	Cebollas
	0703.10.11.00	Amarillas
	0703.10.12.00	Blancas
	0703.10.13.00	Rojas
b. Bunching onions	0703.10.19.00	Las demas
c. Challots	0703.10.20.00	Chalotes
d. Garlic	0703.20.00.00	Ajos
e. Leeks	0703.90.00.00	Puerros y demas hortalizas aliaceas
Arrowroot	0714.10.00.90	Raices de arrurruz - Las demas
Artichoke, Globe	0709.10.00.00	Alcachofas (alcauciles)
Artocarpus spp.:		
a. Breadfruit	0802.90.90.00	Las demas (Fruta del arbol de pan)
b. Jackfruit	0802.90.90.00	Fruta Jak
Arugula		
Asparagus	0709.20.00.00	Esparragos
Ayale		
Banana	0803.00.11.00	Bananas frescas
Banana	0803.00.20.10	Platanos frescos
Basil		Albahaca
Bean, garden & lima	0708.20.00.00	Frijoles (Phaseolus spp.)
	0708.90.00.00	Otros frijoles
Beet	0706.90.0010	Remolacha
Blackberry	0810.20.00.00	Zarzamora
Black Palm Nut		
Brassica spp:		
a. Cauliflower	0704.10.00.00	Cauliflores y brecoles ("broccoli")
b. Broccoli	0704.10.00.00	Cauliflores y brecoles ("broccoli")
c. Brussel Sprouts	0704.20.00.00	Coles (repollitos) de Bruselas
d. Others	0704.90.00.00	Los demas
Brassica oleracea (heading cabbage)	0704.90.00.10	Repollo
All other Brassica oleracea	0704.90.00.90	Los demas
Carrot	0706.10.00.10	Zanahorias
Cassava	0714.00.10.10	Raices de Yuca (mandioca), etc. frescas
Celery	0709.40.00.00	Apio, excepto el apionabo
Chervil		Perifolio (Anthriscus cerefolium)
Chickory	705.29.00.00	Radicchio (Chichorium spp.) (achicorias)
Chinese Kale	0704.90.00.00	Brocoli Chino (Brassica alboglabra)
Cichorium	705.29.00.00	Radicchio (Chichorium spp.) (achicorias)
Cilantro		Cilantro
Corn, green	0709.90.10.00	Maiz dulce (en elote; maiz tierno)

Annex III

Table 3: SAC Code for Fresh Fruit and Vegetable Commodities Admissible from Central America

Admissible Product	SAC Code	Description
Cornsalad	0705.19.00.00	Lechuga canoniga
Cucurbit:		
a. Squash	0709.90.20.00	Ayote
	0709.90.30.00	Chayote
	0709.90.90.00	Otros
b. Cucumbers (large)	0707.00.00.10	Pepinos
c. Cucumbers (small)	0707.00.00.90	Pepinillos
d. Melons	0807.10.10	Melones
e. Watermelons	0807.10.20	Sandias
Dasheen	0714.90.30	Quiquisque (yautia); malanga
Dill		Eneldo (Anthem Graveolens)
Durian	0810.90.90	Otros - Durian (Durio zibethinus)
Eggplant	0709.30.00.00	Berenjenas
Faba bean	0713.50.00.00	Habas (Vicia faba)
False Coriander		
Ginger root	0910.10	Jengibre
Grape	0806.10.00	Uvas
Grapefruit	0805.40.00	Toronjas o pomelos
Green bean	0708.90.00.00	Ejote; vainita
Hyacinth bean	0708.90.00.00	Frijoles - las demas
Jicama		Jicama
Lettuce	0705.11.00.00	Lechugas repolladas
	0705.19.00.00	Las demas lechugas
Lime	0805.30.00	Lima agria (Citrus aurantifolia)
Lorocco		Loroco
Lotus root	0706.90.00	Loto (raiz) (Nelumbo nucifera)
Mango	0804.50.10	Mango
Marang		
Mentha		Menta
Mint		Menta
Miner's Lettuce		
Mustard greens		Mostaza de hoja (Brassica juncea)
Mung beans		Frijol Mungo (Phaseolus aureus)
Okra	0709.90.40.00	Okras
Orange, sweet	0805.10.00.10	Naranjas
Oregano		Oregano
Origanum spp		Oregano
Pak choi	7409.90.00.00	Repollo chino (Brassica chinensis)
Palm heart		Corazon de palma, palmito
Papaya	0807.20.00	Papaya
Parsley		Perejil
Parsnip		Chirivia
Pea	0708.10.00.00	Guisante, arveja, chicharo

Annex III

Table 3: SAC Code for Fresh Fruit and Vegetable Commodities Admissible from Central America

Admissible Product	SAC Code	Description
Pineapple	0804.30.00	Piña
Piper nigrum (peppercorn)		Pimienta negra
Plum	0809.40.00	Ciruela
Radicchio		Radicchio (<i>Chichorium</i> spp.) (achicorias)
Radish	0706.90.00.10	Remolachas y rabanos
Raspberry	0810.200.00	Frambuesas
Rhubarb		Ruibarbo (<i>Rheum rhabarbarum</i>)
Roselle		Rosa de Jamaica
Rosemary		Romero
Rutabaga	0706.10.00.20	Nabo sueco
Sage		Salvia
Salsify		
Sorrel		
Spinach	0709.70.00.00	Espinacas
Strawberry	0810.10.00	Fresas (frutillas)
Summer savory		Ajedrea de jardin (<i>Satureja hortensis</i>)
Swiss chard		Acelgas
Tangerine	0805.20.20	Tangerinas
Tarragon		Estragon
Thyme		Tonillo
Tomato	0702.00.00.00	Tomate
Yard long bean		Ejote rienda (<i>Vigna sineusis</i> , var. <i>sesquipedalis</i>)
Yam (T)	0714.20.00.10	Camotas (batatas, boniatos) frescas
Various spices	0709.90.90.00	Other
Exotic tropical fruit	0810.00	Other fresh fruit

[63 FR 65656, Nov. 30, 1998]

Sec. 319.56-3 Applications for permits for importation of fruits and vegetables.

(a) Persons contemplating the importation of fruits or vegetables the entry of which is authorized in the regulations in this subpart shall first make application to the Plant Protection and Quarantine Programs for a permit, stating in the application the country or locality of origin of the fruits or vegetables, the port of first arrival, and the name and address of the importer in the United States to whom the permit should be sent.

(b) Applications for permits should be made in advance of the proposed shipments; but if, through no fault of the importer, a shipment should arrive before a permit is received, the importation will be held in customs custody at the port of first arrival, at the risk and expense of the importer, for a period not exceeding 20 days pending the receipt of the permit.

(c) Application may be made by telegraph, in which case the information required above must be given.

(d) A separate permit must be secured for shipments from each country and for each port of first arrival in the United States.

(Approved by the Office of Management and Budget under control number 0579-0049)

Annex IV Procedures for Importing Admissible Fruit and Vegetables into the United States

(44 U.S.C. 35)

[24 FR 10788, Dec. 29, 1959, as amended at 48 FR 57466, Dec. 30, 1983]

Sec. 319.56-4 Issuance of permits.

Upon receipt of an application and upon approval by an inspector a permit will be issued specifying the conditions of entry and the port of entry to carry out the purposes of this subpart, and a copy will be supplied to the importer.

Sec. 319.56-5 Notice of arrival by permittee.

(a) Immediately upon the arrival of fruits or vegetables, from the countries specified in Sec. 319.56, at the port of first arrival, the permittee or his agent shall submit a notice, in duplicate, to the Plant Protection and Quarantine Programs, through the United States Collector of Customs, or, in the case of Guam, through the Customs officer of the Government of Guam, on forms provided for that purpose, stating the number of the permit; the kinds of fruits or vegetables; the quantity or the number of crates or other containers included in the shipment; the country or locality where the fruits or vegetables were grown; the date of arrival; the name of the vessel, the name and the number, if any, of the dock where the fruits or vegetables are to be unloaded, and the name of the importer or broker at the port of first arrival, or, if shipped by rail, the name of the railroad, the car numbers, and the terminal where the fruits or vegetables are to be unloaded.

(b) Permits may be revoked and other permits refused if the permittee or his agent fails to submit the notice of arrival or gives a false notice or in any other way violates the quarantine.

(Approved by the Office of Management and Budget under control number 0579-0049)

(44 U.S.C. 35)

[24 FR 10788, Dec. 29, 1959, as amended at 48 FR 57466, Dec. 30, 1983]

Sec. 319.56-6 Inspection and other requirements at the port of first arrival.

(a) Inspection and treatment. All imported fruits or vegetables shall be inspected, and shall be subject to such disinfection at the port of first arrival as may be required by an inspector, and shall be subject to reinspection at other locations at the option of an inspector. If an inspector finds a plant pest or evidence of a plant pest on or in any fruit or vegetable or its container, or finds that the fruit or vegetable may have been associated with other articles infested with plant pests, the owner or agent of the owner of the fruit or vegetable shall clean or treat the fruit or vegetable and its container as required by an inspector, and the fruit or vegetable shall also be subject to reinspection, cleaning, and treatment at the option of an inspector at any time and place before all applicable requirements of this subpart have been accomplished.

(b) Assembly for inspection. The owner or agent of the owner shall assemble imported fruits and vegetables for inspection at the port of first arrival, or at any other place prescribed by an inspector, at a place and time and in a manner designated by an inspector.

(c) Refusal of entry. If an inspector finds that an imported fruit or vegetable is prohibited or is so infested with a plant pest that, in the judgment of the inspector, it cannot be cleaned or treated, or contains soil or other prohibited contaminants, the entire lot may be refused entry into the United States.

(d) Release for movement. No person shall move from the port of first arrival any imported fruit or vegetable unless and until an inspector notifies the person (in person, in writing, by telephone, or through electronic means) that the fruit or vegetable:

(1) Has been released; or

(2) Requires reinspection, cleaning, or treatment of the fruit or vegetable at that port or at a place other than the port of first arrival, or is prohibited and must be exported from the United States.

**Annex IV
Procedures for Importing Admissible Fruit and Vegetables into the United States**

(e) Notice to owner of actions ordered by inspector. If an inspector orders any disinfection, cleaning, treatment, reexportation, or other action with regard to imported fruits or vegetables, the inspector shall file an emergency action notification (PPQ Form 523) with the owner of the fruits or vegetables or an agent of the owner. The owner must, within the time specified in the PPQ Form 523, destroy the fruits and vegetables, ship them to a point outside the United States, move them to an authorized site, and/or apply treatments or other safeguards to the fruits and vegetables as prescribed by an inspector to prevent the introduction of plant pests into the United States.

(f) Costs and charges. The Animal and Plant Health Inspection Service (APHIS), U.S. Department of Agriculture will be responsible only for the costs of providing the services of an inspector during regularly assigned hours of duty and at the usual places of duty. ¹ The owner of imported fruits or vegetables is responsible for all additional costs of inspection, treatment, movement, storage, or destruction ordered by an inspector under this subpart, including any labor, chemicals, packing materials, or other supplies required. APHIS will not be responsible for any costs or charges, other than those identified in this section.

 \1\ Provisions relating to costs for other services of an inspector are contained in 7 CFR part 354.
 [60 FR 62320, Dec. 6, 1995]

Sec. 319.56-7 Inspection of baggage and cargo on the dock.

Inspectors of the U.S. Department of Agriculture are authorized to cooperate with the customs inspectors in the examination of all baggage or other personal belongings of passengers or members of crews of vessels or other carriers whenever such examination is deemed necessary for the purpose of enforcing the provisions of Sec. 319.56 with respect to the entry of any prohibited or restricted fruits or vegetables or plants or portions of plants which may be contained in the baggage or other belongings of such persons.

Sec. 319.56-8 Territorial applicability.

The regulations in this subpart shall apply with respect to importations into the continental United States, Guam, Hawaii, Puerto Rico, and the Virgin Islands of the United States.

APHIS Contact Information

<u>Official</u>	<u>Contact Information</u>
Responsible for issuing import permits	Ms. Deborah M. Knott Branch Chief, PPQ Permits USDA, APHIS, PPQ 4700 River Road, Riverdale, MD 207371 Tel: 301 734 5055 Fax: 301 734 8700 E-mail: Deborah.M.Knott@usda.gov
Responsible for Commodity Risk Assessments	Mr. Edwin M Imai Team Leader, Permits & Risk Assessments USDA, APHIS, PPQ 4700 River Road, Riverdale, MD 207371 Tel: 301-734-8896 E-mail: Edwin.M.Imai@usda.gov
Responsible for Permits and Risk Assessments	Mr. Michael J. Firko

Annex V

Internet Addresses and Contact Information for APHIS Officials Responsible for Import Permits, PRAs and Mitigation Procedures

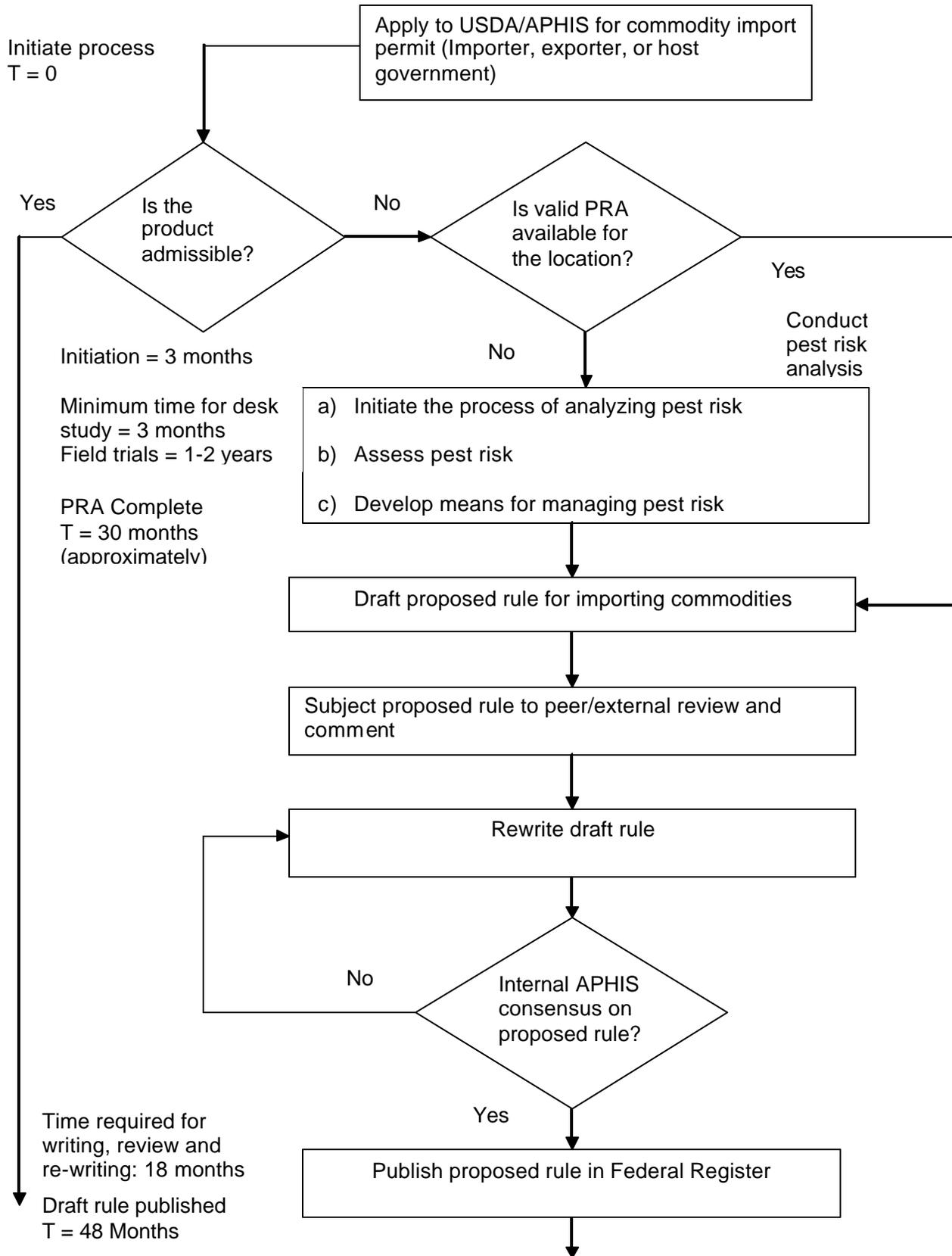
	Supervisory Agriculturist USDA, APHIS, PPQ 4700 River Road, Riverdale, MD 207371 Tel: 301 734 8760 Fax: 301 734 4300 E-mail: Michael.J.Firko@usda.gov
Responsible for Mitigation, Trade Issues, Imports and International Services	Mr. Alan S. Green Assistant Director USDA, APHIS, PPQ 4700 River Road, Riverdale, MD 207371 Tel: 301 734 8311 Fax: 301 734 7639 E-mail: Alan.S.Green@usda.gov
Contact Person for Mitigation Procedures	Mr. Wayne D. Burnett Senior Import Specialist USDA, APHIS, PPQ 4700 River Road, Riverdale, MD 207371 Tel: 301 734 6799 Fax: 301 734 5007 E-mail: Wayne.D.Burnett@usda.gov
Import Queries Related to Nicaragua	Mr. Paul Gadh Import Specialist Phytosanitary Issues Management USDA, APHIS, PPQ 4700 River Road, Riverdale, MD 207371 Tel: (301) 734-5210 Fax: (301) 734-5007 E-mail: Paul.Gadh@usda.gov

Annex V

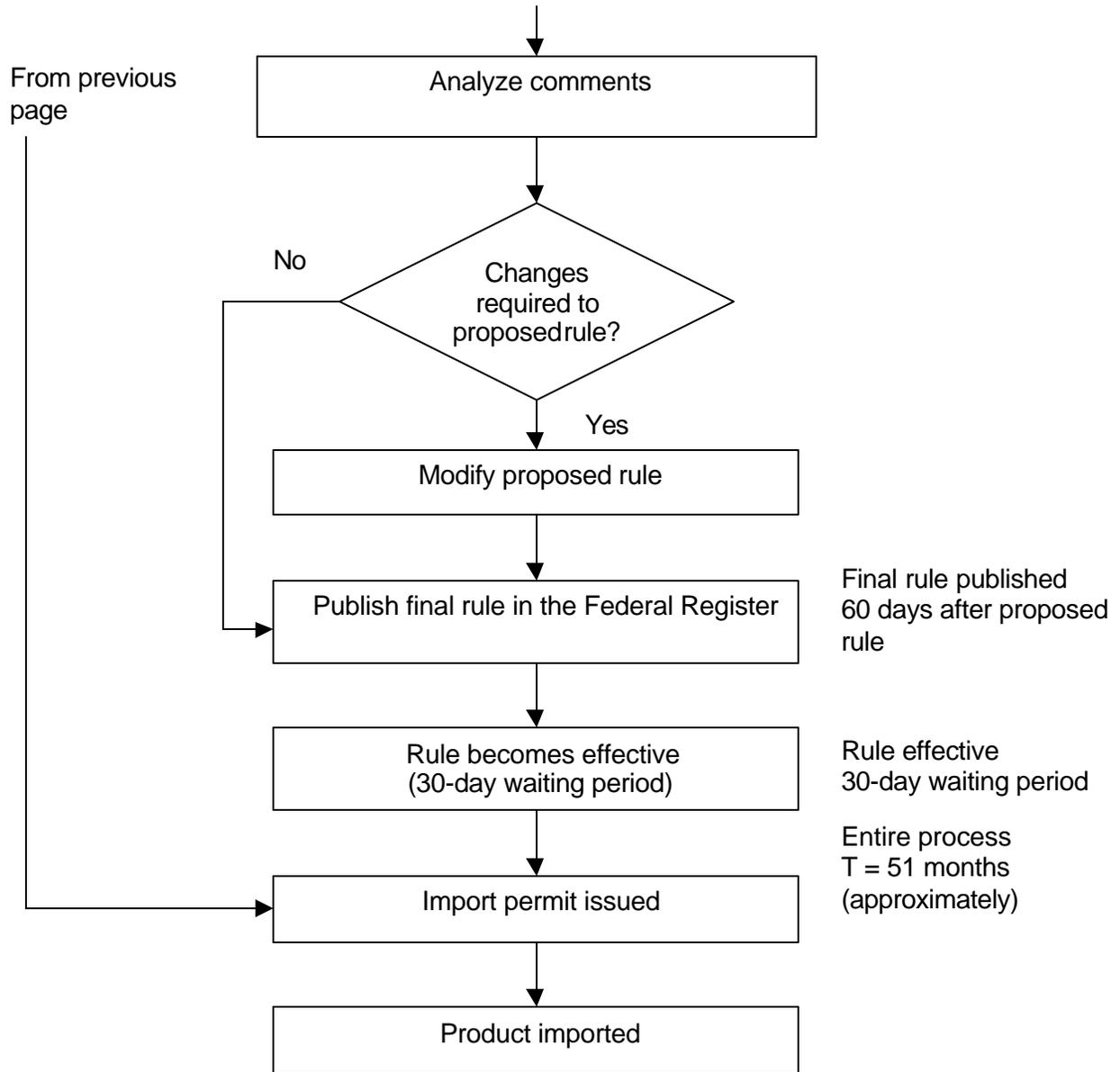
Internet Addresses and Contact Information for APHIS Officials Responsible for Import Permits, PRAs and Mitigation Procedures

Internet Addresses

APHIS Home Page	http://www.aphis.usda.gov
PPQ Home Page	http://www.aphis.usda.gov/ppq/
To download the U.S. Plant Protection Act (PPA) (Title IV, Agriculture Risk Protection Act of 2000)	http://www.aphis.usda.gov/ppq/plantact/
To download the APHIS Guidelines for Conducting Commodity Pest Risk Analysis	http://www.aphis.usda.gov/ppq/pracommodity/cpraguide.pdf
For information on Pending, Active and Completed Pest Risk Analyses for different countries	http://www.aphis.usda.gov/ppq/pracommodity
APHIS Import Authorization System (obtain permits online)	https://web01.aphis.usda.gov/IAS.nsf/Mainform?OpenForm
Contact information for USDA/APHIS/PPQ personnel	http://ds.usda.gov



Annex VI - Flowchart of Steps Required for Fruit and Vegetables to be Approved for Importation into the United States



Chemonics International, Inc.

Nicaragua Agricultural Reconstruction & Assistance Program (ARAP)

Terms of Reference

- Position:** Expansion of Produce and Marketing Opportunities, US Import Permit Requirements
- Qualifications:** Senior agribusiness professional with experience in international trade, export products from Latin America (both traditional and non-traditional) and USDA public sector agricultural policy pertaining to import permits. Must be able to communicate results in Spanish to senior level policy makers and private sector representatives.
- Background:** The ARAP project works to increase marketing opportunities for Nicaraguan agricultural commodities and non-traditional exports. It does this through the identification of new markets for existing production and the facilitation of production assistance to meet marketing opportunities that are currently under-exploited. Potential markets such as the US have strict regulations governing the entrance of fresh fruits and vegetables, and the regulations governing them are not well understood. Each country has specific approved products it can export to the USA. During the 1980s most countries in Central America were able to expand upon their list of approved products for export into USA. Due to its civil war Nicaragua was unable to initiate such requests, and as a consequence has far fewer admissible products than its Central American neighbors.
- Purpose:** Identify costs to Nicaragua of not being able to export products that are currently admissible by other central American countries (emphasis on Guatemala, Honduras, Costa Rica and El Salvador). Identify key target products and identify strategy for increasing admissible products. Disseminate information and strategy to key actors in Nicaraguan agricultural sector (public and private) as well as USAID and other interested donor agencies.

Tasks:

1. Review current USDA listings of permitted products from the following countries:
 - A. Nicaragua
 - B. Costa Rica
 - C. Honduras
 - D. El Salvador
 - E. Guatemala
2. Prepare side by side analysis of products. This will encompass three areas:
 - A. Those products commonly approved for import from Nicaragua and neighboring countries.
 - B. Approved products unique to Nicaragua
 - C. Approved products common to neighboring countries but currently not admissible from Nicaragua
3. Prepare estimations of export volumes and values for products currently exported from neighboring countries. For the top 10 value products estimate potential Nicaraguan exports of same products if admissible.

Annex VI Consultant's Terms of Reference

- Identify priority products and using currently pending MAGFOR pitahaya research protocol and prior successful intents from Nicaragua and neighboring countries develop flow chart of steps needed to undertake this and similar approvals, both in requesting country and in USA.

Deliverables:

The consultant will deliver a final report that will contain the following:

- Market information showing potential export gains from increasing amount of exportable products from Nicaragua.
- Road map of entire process, showing where Nicaragua is and detailing steps that will need to be taken by Nicaraguan officials for CY 2002 and beyond.
- Key recommendations on products, strategies and time frames.

Timing/Duration:

The assignment is estimated to take a total of 17 person days

Washington-DC area support work, including meetings with APHIS/ARS officials, market research with Central American *gremiales* (particular emphasis on Guatemala and Costa Rica), coordinating with MAGFOR and ARAP professionals via email, phone and fax. Intermittent, 8 days.

Field visit to Nicaragua (including international travel) 7 days

Final report preparation 2 days

Location:

The consultant will work from his/her home of record, will travel to Washington, D.C. as necessary to meet with USDA officials, and will undertake one trip to Nicaragua at the end of the assignment to present findings and report to ARAP, MAGFOR, private producers and NGOs/PVOs working in Nicaragua

Reporting:

While in Nicaragua, the consultant will report directly to Chemonics' chief of party, Mr. Ramiro Irabien, or any successor appointed by Chemonics. Mr. Irabien is responsible for monitoring the consultant's overall performance under the terms of the contract. Market information will be coordinated with Julio Cesar Montealegre, ARAP Marketing Specialist. It is expected that the consultant will engage in extensive communications, via email and telephone with ARAP field office, HO PMU and USDA/APHIS.

Nicaragua Agricultural Reconstruction & Assistance Program (ARAP)

Expansion of Produce and Marketing Opportunities, US Import Permit Requirements

Persons Met

Michael Schwartz Consultant CLUSA/Quality Coffee Work: (505) 266-5996 Fax: (505) 268-0295 E-Mail: schwartz@ibw.com.ni Address: Reparto Bolonia Del Canal 2, una cuadra abajo Casa Esquinera (mano derecha)	Ramiro Gurdían Director Ejecutivo Bananic International NV Work: (505) 267 8311/13 - 266 3542 Fax: (505) 277-3633 Other: 32 32 32 0358 Fax: 3232329524 E-Mail: garache@ibw.comni Bourlastraat 3	Shirley Kline Consultant Happy Valley Berry Farm Kline Consulting Work: (856) 455-0553 E-Mail: klines@algorithms.com .com 187 Buckhorn Rd. Bridgeton, NJ 08302 United States
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Annex VII Persons Met

Managua, Nicaragua	Antwerpen 2000, Belgium Apartado 4012 Managua, Nicaragua	
Fernando Medina Attorney Work: 505 278 1508 Mobile: 505 887 6192 E-Mail: fmedina@cablenet.com.ni Managua, Nicaragua	Humberto Hurtado Gerente Operacion Nicaragua Williams De Exportacion S.A (Bananos) Affiliated with Chiquita Bananas Work: (505) 341-2134; (505) 341-0084 Fax: (505) 341-2134 Home: (505) 276 1723 E-Mail: hhurtado@ibw.com.ni Tanques INAA 200 N. 50 O. Mirador Sto. Domingo Managua, Nicaragua	James Johnson Director de Proyectos Programa de Asistencia a la Reconstruccion de la Agricultura (ARAP) Arap/Chemonics Work: 505 270-3677 / 5150 / 5169 Fax: 505 270-3742 E-Mail: arap.jjohnson@cablenet.com.ni Colonial los Robles Hotel Colón 3 c. al Norte, Casa No. 60 Managua, Nicaragua
Julio César Montealegre Coordinador de Mercadeo Programa de Asistencia a la Reconstruccion de la Agricultura (ARAP) Arap/Chemonics Work: 505 270-3677 / 5150 / 5169 Fax: 505 270-3742 E-Mail: arap.jmontealegre@cablenet.com.ni Colonial los Robles Hotel Colón 3 c. al Norte, Casa No. 60 Managua Nicaragua	Salvador Picado Commercialization Director Nicaraguan Association of Producers and Exporters of Non- Traditional Products (APENN) Work: 505 270-3677 / 5150 / 5169 E-Mail: salvador.picado@apenn.org.ni Fax: 505 270-3742 Fax: 505 266 5160 Postal Address/USA: Nicabox No. 195 7801 N.W.37th.St. Miami, FL 33166-6559 United States	Denis Bojorquez Market Intelligence Officer Nicaraguan Association of Producers and Exporters of Non-Traditional Products (APENN) Work: 505 270-3677 / 5150 / 5169 E-Mail: D_Bojorquez@apenn.org.ni Fax: 505 270-3742 Fax: 505 266 5160 Postal Address/USA: Nicabox No. 195 7801 N.W.37th.St. Miami, FL 33166-6559 United States
Julio César Montealegre Coordinador de Mercadeo Programa de Asistencia a la Reconstruccion de la Agricultura (ARAP) Arap/Chemonics Work: 505 270-3677 / 5150 / 5169 Fax: 505 270-3742 E-Mail: arap.jmontealegre@cablenet.com.ni Colonial los Robles Hotel Colón 3 c. al Norte, Casa No. 60 Managua	Salvador Picado Commercialization Director Nicaraguan Association of Producers and Exporters of Non- Traditional Products (APENN) Work: 505 270-3677 / 5150 / 5169 E-Mail: salvador.picado@apenn.org.ni Fax: 505 270-3742 Fax: 505 266 5160 Postal Address/USA: Nicabox No. 195 7801 N.W.37th.St. Miami, FL 33166-6559	Denis Bojorquez Market Intelligence Officer Nicaraguan Association of Producers and Exporters of Non-Traditional Products (APENN) Work: 505 270-3677 / 5150 / 5169 E-Mail: D_Bojorquez@apenn.org.ni Fax: 505 270-3742 Fax: 505 266 5160 Postal Address/USA: Nicabox No. 195 7801 N.W.37th.St.

Annex VII Persons Met

Nicaragua	United States	Miami, FL 33166-6559 United States
<p>Roberto Brenes General Manager Nicaraguan Association of Producers and Exporters of Non- Traditional Products (APENN) Work: 505 270-3677 / 5150 / 5169 EMail: Roberto.Brenes@apenn.org.ni Fax: 505 270-3742 Fax: 505 266 5160 Postal Address/USA: Nicabox No. 195 7801 N.W.37th.St. Miami, FL 33166-6559 United States</p>	<p>Nubia Molina Servicio de Informacion Comercial Center for Exports and Investment (CEI) Work: (505) 268-3860 E-Mail: nmolina@cei.org.ni Fax: (505) 266 4476, 268 3878 U.S. Mailing address: Nicabox # 1130 P.O. Box # 02 5640 Miami, FL 331025640 United States</p>	<p>Lorena Sotomayor Oficial Promocion de Inversiones Center for Exports and Investment (CEI) Work: (505) 268-3860 Fax: (505) 266 4476, 268 3878 E-Mail: Lsotomayor@ cei.org.ni U.S. Mailing address: Nicabox # 1130 P.O. Box # 02 5640 Miami, FL 331025640 United States</p>
<p>Juan Ramirez, Presidente Agropolis Work: (505) 882-5136 Fax: 505 0341 0864 E-Mail: Agropolis@ tec.com.ni AMENIC, 6701 SW 152 Ct. Miami, FL 33193 United States</p>	<p>Eugene Miller, Team Leader Winrock Technical Services to Small Farmers Project Work: 505 278 0128 Home: 505 276 1549 E-Mail: Eumiller@aol.com Reparto Lomas de Guadalupe del Sandy's Carretera a Masaya Una cuadra abajo, 2 cuadras al lago 1 cuadra arriba casa No. 502, Managua Nicaragua</p>	