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Inma Agribusiness Program QUARTERLY REPORT October – December 2009



December 2009

This report was produced for review by the U.S. Agency for International Development (USAID). It was prepared by (author for) a consortium led by The Louis Berger Group, Inc.

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December 31, 2009

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DISCLAIMER

The author's views expressed in this publication do not necessarily reflect the views of the U.S. Agency for International Development or the United States Government.

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ACRONYMS

COP	Chief of Party
COTR	USAID Contracts Officer Technical Representative
DEC	USAID Development Experience Clearinghouse
EFF	Euphrates Fish Farm
ePRT	Embedded Provincial Reconstruction Team
FADO	Future Agriculture Development Organization
FAR	Federal Acquisition Regulations
FOB	Forward Operating Base
GOI	Government of Iraq
GFA	Geographic Focus Area
IRs	Intermediate Results
ITAO	Iraq Transition Assistance Office
LOP	Life of Project
LTTA	Long Term Technical Assistance
M&E	Monitoring and Evaluation
MEFF	Middle East Fish Farm
MFI	Microfinance Institution
MNF-I	Multi-National Force - Iraq
MoA	Memorandum of Agreement
MOA	Ministry of Agriculture
MOE	Ministry of Electricity
MOP	Ministry of Planning
MoU	Memorandum of Understanding
MoWR	Ministry of Water Resources
NGO	Non-Governmental Organization
PDS	Public Distribution System
PO	Purchase Order
PRT	Provincial Reconstruction Team
RFA	Request for Applications
RFP	Request for Proposals
SME	Small and Medium Enterprises
TA	Technical Assistance
TTA	Targeted Technical Assistance
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
USG	United States Government

GENERAL INFORMATION

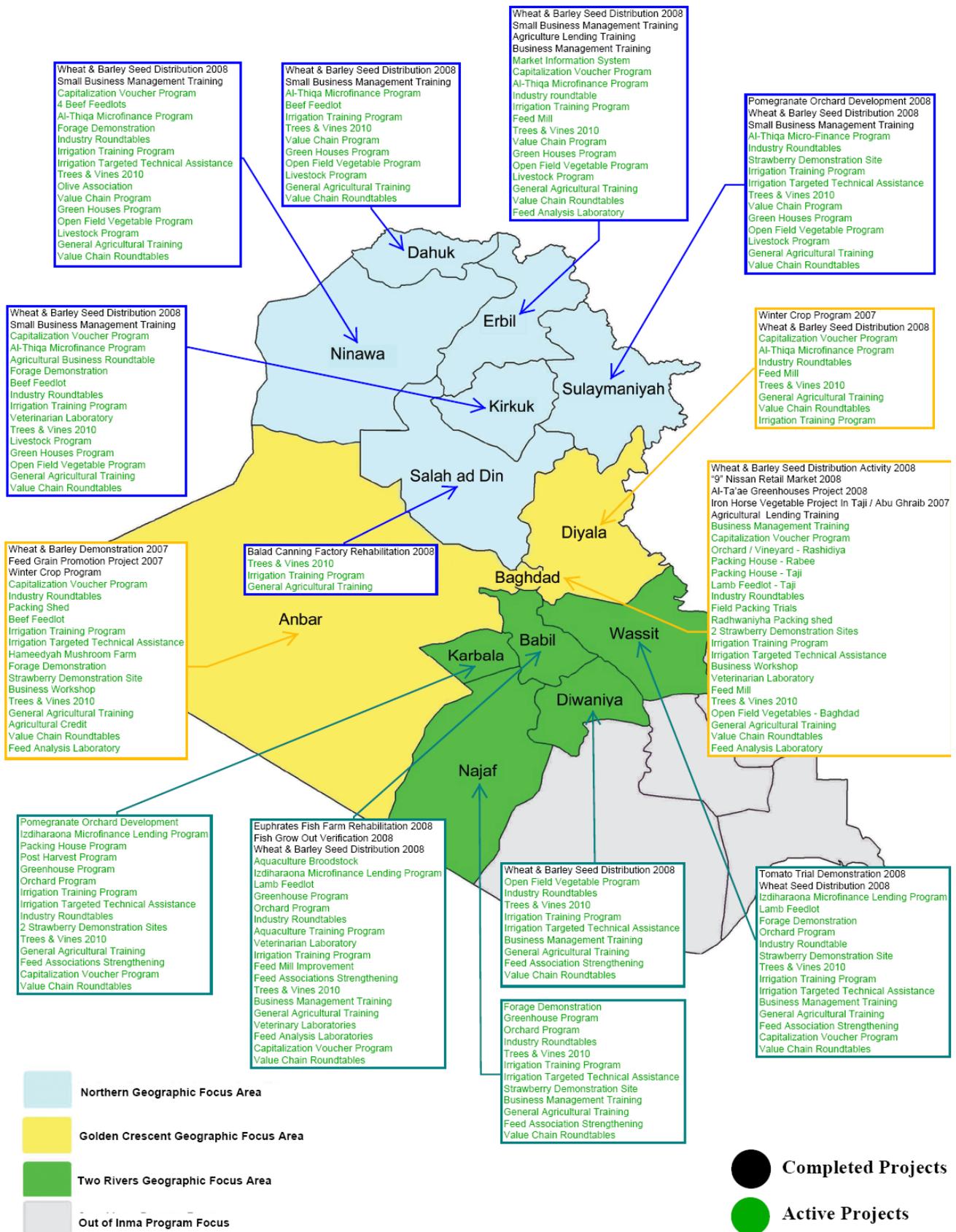
The USAID/*Inma* Agribusiness Program focuses on developing Iraq's private agribusinesses by facilitating the formation of fully-integrated value chains and improving agricultural quality and production. *Inma*, the Arabic word for 'growth,' connects farmers to markets, increases the competitiveness of Iraqi agribusinesses, and facilitates domestic and foreign agricultural partnerships.

This report covers the 10th Quarter (Oct-Dec 2009) of the USAID-funded Inma Agribusiness Program in Iraq. The report provides an update on the planned activities in the Annual Work Plan and on the outputs in the Performance Monitoring Plan (PMP).

Project Name:	<i>Inma</i> Agribusiness Program
Project Objective:	The purpose of this contract is to provide agricultural and business development services to USAID beneficiaries in strategic locations in Iraq to promote economic diversification and job generation, with an emphasis on the growth of the agriculture and agribusiness ("agro-food") sectors in the provincial, regional and sub-regional economies.
Contract No:	267-C-00-07-00500-00
Contract Start Date:	May 14, 2007
Contract End Date:	August 31, 2010 Two one-year options to extend to September 30, 2012
Project End Date:	April 2012
Project Principals:	Charles Bell, Senior Vice President The Louis Berger Group, Inc.
On-Site Leadership	Ross Wherry, Chief of Party Shehnaz Atcha, Program Manager Tracy Atwood, Deputy Chief of Party - Technical Program

The Cost-Plus-Fixed-Fee (CPFF) contract (No. 267-C-00-07-00500-00) for the *Inma* Program was signed May 14, 2007. The period of performance of the contract is three years, May 14, 2007 through August 31, 2010, with two one year options to extend through April 30, 2012.

MAP of Inma ACTIVITIES by GEOGRAPHIC FOCUS AREAS



EXECUTIVE SUMMARY

Between May 2007 and December 2009,

- **Inma created 4,430 full time jobs⁽¹⁾ and 31,534 seasonal jobs in agriculture and supporting businesses since May 2007.** A further 15,570 full time jobs are expected to be created by June 2010.
- **Gross sales⁽²⁾ among Inma partners attained \$169.3 million.** Another \$130 million in sales are likely to be earned through June.
- **Inma has mobilized over \$12 million in Iraqi equity investment.**

New Industries Mobilize Iraqi Investment

- **10 investors – partnerships and associations – demonstrated that commercial stock production in feedlots is viable.** In January, Inma will work with 16 more investors to establish feedlots.
- **Five investors are showing that commercial, mechanized alfalfa production is viable.** A dozen more farmers are willing to plant alfalfa for commercial sale.
- **Six training centers focus on getting two crops a year from 2,600 greenhouses.** Training of 2,000 greenhouse operators begins in January.
- **10 investors showed the viability and profitability of strawberry production.** The main harvest begins in February.

Greater Production for Domestic Fresh Market

- **300 farmers doubled pond-based fish sales without increasing water use.** 200 more farmers will be trained by March.
- **Six feed mills entered a program that will lower poultry and fish feed cost by 16%.** 3,000 members of 42 farm service associations will see their production costs drop.
- **Farmers received new varieties of fruit and grapes that allow harvest over 12 weeks.** Training for 2,000 orchardmen and viticulturists begins in January.
- **Five training centers focus on early production from melon and vegetable producers.** Training of 3,100 farmers begins in January for production and irrigation.

Iraqi Agriculture Moves towards Market-Based Production

- **27 enterprises have filed bankable business plans.** Inma continues to advise these firms as their plans unfold.
- **40 farm service associations seek to become businesses.** They will sell chicken and fish feed to their members.
- **Leaders in the livestock, horticulture, and fish industries in six provinces resolve industry constraints.** Inma continues to bring producers and government together.
- **\$6 million in agribusiness credit available; \$3.4 million disbursed.** A total of \$5.3 million will be disbursed by March.

(1) In the project design, Inma support to agribusinesses means the indirect introduction of two additional jobs per actual job. This means for every actual job recorded by Inma field staff and Monitoring & Evaluation staff using monthly tools, actual jobs are multiplied by two to reflect gross jobs. This principle is applied to both agribusinesses and micro-loans, i.e., every actual agribusiness job generates two gross jobs, and every micro-loan recipient generates two gross jobs.

(2) As per F5 indicator on gross sales, Inma is expected to generate gross sales worth \$300 million by August 31, 2010. Gross sales are derived from the actual sales of the Inma-supported agribusinesses using field tools. Inma staff utilize various tools to collect data on gross sales, which the Monitoring & Evaluation department converts into gross figures. The actual sales are multiplied by 2.5 times to reflect gross sales. This formula is derived from Dr. John W. Mellor's 1998 studies indicating the for every \$1.00 in agriculture, and additional \$2.50 is generated in rural incomes. By the end of December 31, 2009, Inma met 56.4% of this goal, or \$169,312,505. 43.6% of this indicator (\$130,687,495) remains to be generated by August 31, 2010.

Inma Agribusiness Program

QUARTERLY REPORT

October - December 2009

VALUE CHAINS

Inma approaches Iraqi food markets through value chain analysis to address the constraints to profitability as product flows from the farm through markets to the consumer. *Inma* supports three of the most needed and profitable agricultural value chains in Iraq:

- Beef and Lamb
- Aquaculture and Poultry
- Fruits and Vegetables

The activities increase productivity, lower production and marketing costs, increase the profitability of agricultural enterprises, and generate rural employment.

Inma assists Iraqi enterprises to attain a critical mass of producers and marketers to convincingly demonstrate high-value businesses. Specific *Inma* activities include field trials, demonstrations, and institutional support to catalyze the adoption of improved production, post-harvest, and marketing practices.

Inma's Business Development Services unit complements the three value chains through agribusiness financing, market information systems, business consultation services, and training programs.



A. BEEF AND LAMB VALUE CHAIN

In Iraq, demand for quality lamb and beef exceeds supply. Rising consumption of red meat parallels rising household income. Cattle and sheep populations have declined since the 1990s due to violence and feed shortages. The livestock and dairy industries depend upon year-round availability of adequate quantities of alfalfa, grass and mixed hay. This is especially true for lamb. The greatest single source of protein in the Middle East diet comes from dairy (laban, yoghurt, etc.)

In response, *Inma* established modern feedlots. It is introducing mechanized forage production; upgrading veterinary diagnostic laboratories, and sponsoring conferences in the beef and lamb industry to discuss changing market demands.

1. FEEDLOT PRODUCTION

Market prices for red meat are more than three times that of poultry. According to a World Bank and “Central Organization for Statistics and Information Technology” (COSIT) survey, as household incomes increase, the percentage of money spent on red meat will dramatically increase to exceed other commodities such as cereals, vegetables, fruits, and fish. Strong consumer preference for red meats indicates that consumption of lamb and beef will grow faster than supply. Iraqi producers have a competitive advantage over imports in supplying lamb and beef to the domestic market.



Feeding animals in confinement is a new industry that not only produces better quality meat but also leads to many other intermediate businesses such as the consolidation of feeder calves and forage. To make quality meat more available, *Inma* supported the creation of seven beef feedlots and three lamb feedlots around Iraq. They will produce 4,200 head of beef and 3,600 head of sheep yearly in confinement. *Inma* expects that as many as ten additional feedlots will replicate the *Inma* demonstration.

Feedlot operators buy calves and lambs from livestock markets and herders, and alfalfa hay and barley from many farmers. *Inma's* contribution is to minimize business risk of learning the new technology as Iraqi stockmen see proof of the benefits of modern production practices.



Inma will also provide assistance in business and association development training to feedlot operators. A contract will be issued to provide training in administrative, business and financial matters during the first six months of feedlot operation. *Inma* has 15 Iraqi staff to assist the feedlot operators in stock-raising.

Quarterly Progress

Feedlot grants have been awarded in Dahuk, Baghdad, Wasit, Babil, Anbar, Kirkuk and four in Ninawa. All the feedlot grants were signed between May and August 2009 with construction in various stages at present time. The first animals to be sent to market will be lambs as they are marketed at 35-40 kilos, whereas beef are fattened to 350-400 kilos. The first lambs to go to market will be in early March 2010.



Infrastructure Support

During this quarter, *Inma's* Iraqi engineers monitored the construction of the feedlots to ensure that construction remained on schedule. The grantees employed approximately 175 laborers for six months for the construction of the 10 feedlots. The engineers made approximately 150 field visits this quarter to feedlot construction sites.

By December 2009, the demonstration feedlots achieved:

Ten Feedlots (Seven Beef, Three Lamb)	Stocking Begins	#of heads	First Animals Sold	Construction
Brotherhood, Bartella, Ninawa	October 15, 2009	150	May 15, 2010	Construction 100%
Shavin, Blann, Dahuk	November 1, 2009	200	May 30, 2010	Construction 99%
Al-Nahreen, Alqosh, Ninawa	January 1, 2010	60	June 30, 2010	Construction 82%
Hawks of Iraq Hillah, Babil*	December 1, 2009	120	March 1, 2010	Construction 99%
Nimer Al Jazera Company, Fallujah, Anbar*	January 1, 2010	50	June 30, 2010	Construction 62%
Al Fallah Association, Al Mohallabya	January 1, 2010	50	June 30, 2010	Construction 45%
Al - Naem Ass. Qoba Village, Ninawa	January 1, 2010	50	June 30, 2010	Construction 69%
Dia Al Nor Agriculture Association	December 15, 2009	100	March 15, 2010	Construction 60%
Dijlat Al- Khair Sawera, Wasit*	January 1, 2010	50	April 1, 2010	Construction 72%
Al – Jubori Group Al Boeter Village, Kirkuk	January 1, 2010	50	June 30, 2010	Construction 66%
*Lamb feedlots				

Livestock operators need to know the cost and composition of feed to accurately manage their business. *Inma* technical staff went to markets to take samples of available feed and had them analyzed for energy and protein levels. Based on this data, *Inma* staff recommended cost-effective feed formulations for optimum production.

Inma completed an analysis of the wheat, corn, and alfalfa to calculate the production costs and



profitability of these crops. The paper supports a policy of more crop diversity in Iraq, currently dominated by wheat, and offers convincing alternatives to wheat, especially alfalfa. Feedlot operators can use the data of the paper to lower their production costs as they switch from wheat to alfalfa.

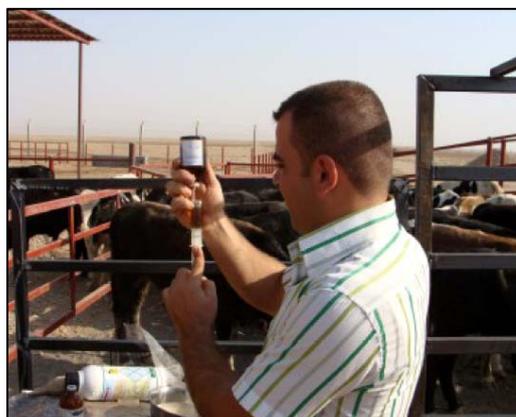
A workshop entitled *Feed Formulation and Feeding Management* was held in Erbil October 11. The trainees learned animal selection, and health and nutrition as the six northern feedlots prepared to receive livestock. The *Inma* technical team compiled a list of feed ingredients that will allow the profitable production of red meat. *Inma* recommended a vaccination plan to feedlot operators. Operators received detailed protocols along with a set of standard operating procedures to successfully manage their feedlots. *Inma* also provided the operators with locations of markets to purchase feeder calves.

A one-day training session concentrating on lamb production to prepare lamb feedlot grantees and field supervisors was organized on November 16, 2009. The goal was to ensure that guidance on feeding strategies, record-keeping, feeder lamb selection, and bio-security protocols as stated in our proposed Standard Operation Procedures was provided to all.

Four sessions in General Livestock Production Management Training were completed, with a total of 100 trainees. The trainees were interested farmers as well as feedlot staff.

Next Quarter Highlights

- Complete stocking of all 10 feedlots. First sales are expected in March.
- General Livestock production and management training program for 1,000 people.
- Livestock software and record keeping for field staff and feedlot operators.
- Herd Management software will be provided to feedlot operators in south and central GFA to keep good production records; they will learn to use data trends to make mark and feed management decisions and to provide medical care.
- Four Red Meat Industry Roundtables are scheduled in Erbil, Najaf, Baghdad, and Anbar.



2. VETERINARY DIAGNOSTIC LABORATORIES

Enhancing livestock production in Iraq requires veterinary laboratory services with human capital and technological capabilities. Until recently, laboratory diagnostics were the responsibility of government veterinary services that lack modern standards. A few private veterinary practices have an interest in undertaking diagnostic services but their capabilities are limited.

Inma is assisting the establishment of three private veterinary laboratories. *Inma* will train the laboratory staff on diagnostic procedures and methods, use of modern analytical equipment and biological products. In addition, the diagnostic laboratories will receive business management training. A new generation of highly skilled laboratory technicians working collaboratively with practicing veterinarians and feedlot operators should develop.

Quarterly Progress

Al-Ameen Veterinary clinic in Kirkuk , the Animal House Clinic in Baghdad , and the Halab Veterinary Laboratory in Babel have been selected through a competitive procurement to receive laboratory equipment to upgrade their facilities.

Next Quarter Highlights

- January - Workshop on veterinary laboratory operations, Diffusion of posters on major animal diseases in Iraq.
- February - Delivery of equipment and training of laboratory staff.
- March - Invitation of Laboratory Managers to visit *Inma*-supported feedlots and training events.

3. FORAGE DEMONSTRATION FIELDS

Inma is working with five farmers to demonstrate large scale production of high-yielding varieties of alfalfa hay, a critical feed for the feedlot and dairy industries. Alfalfa hay is a high value crop with export potential. The forage initiative is projected to employ as many as 500 rural laborers on- and off-farm while generating \$1.5 million in annual revenue.



Iraqi production of alfalfa uses small fields and hand harvesting of enough fodder to feed the three to five family cows for a day. The alfalfa is of old, low-protein varieties, typically infected with a parasitic plant called dodder, *cuscuta approximata*, which weakens the stands and slows growth. Typically, Iraqi alfalfa is harvested late (after bloom) when its protein content has begun to fall and the plant stems become woody. Alfalfa is a perennial crop in Iraq which can grow for four years, with up to 30 harvests. Quality alfalfa hay harvested during the appropriate stage has an approximate crude protein of 19%, an excellent protein source for all types of livestock. It travels well, and can be consumed in quantity due to its low water content.

Inma assisted large-scale forage demonstrations in five distinct climatic zones totaling 400 hectares. Each site (Wasit, Najaf, Anbar, Ninawa, and Kirkuk) has a different method of

irrigation and cultural practice adapted to its climate. Planting occurred in November 2009, with harvesting set to begin in February 2010.

The introduction of mechanized hay technology to farmers underscores the many years of isolation they have faced. The cutters and balers being provided represent a 20-year leap for Iraqis which took place gradually in other countries. *Inma* supports these pioneers of the new industry and helps minimize the considerable risks they are taking with their own investments as they step into the future of agribusiness in Iraq. For example, they are foregoing safe income from wheat.

Alfalfa was planted November 11 - December 5 at the five field sites. Over 1,585 donums (400 hectares) of land in Najaf (pivot irrigation), Anbar (flood irrigation), Wasit (flood irrigation). Ninawa and Kirkuk were planted to an improved variety of Alfalfa.

Five Forage Demonstrations	Barley Cutting	First Alfalfa Cutting	Planting Dates
Wasit	early Jan to early Feb 2010	mid-March 2010	Nov 12-17, 2009
Najaf	late February 2010	early April 2010	Nov 27-Dec 2, 2009
Ninawa	mid February 2010	mid-March 2010	Nov 12-Dec 5, 2009
Kirkuk	mid February 2010	mid-March 2010	Nov 15-30, 2009
Anbar	mid February 2010	mid-March 2010	Nov 9-30, 2009



Resources

For the forage demonstration program to succeed, a carefully planned convergence of resources was scheduled by *Inma* to ensure all elements were in place for the November planting. *Inma* arranged for five state-of-the-art Brillion Alfalfa Cultipacker Seeders to be assembled and delivered from Wisconsin on November 11, 2009. Five New Holland hay rakes are en route to Iraq from Pennsylvania along with five New Holland cutter-

conditioners and nine New Holland hay balers and are scheduled for delivery in country February 11. Fourteen tons of PAC 78001 Alfalfa Seed from California were delivered November 4, 2009. The demonstration sites also received Delmhorst Hay Moisture Probes, as well as Irrrometer Tensiometers from Riverside, CA and five Nardi Disc Harrows from Italy.

Training in Forage Production

August 10-11, *Inma* field staff attended forage production training in support of forage demonstration site operators. The staff extends the new planting technology and coordinates on-site pre-planting activities with *Inma's* irrigation team, meeting demonstration farmers weekly. Advanced forage production training was held September 14, providing *Inma* field officers with updated timelines and



practices for project implementation considering the planned arrival time of seed and tillage equipment. Trainees also received technical details for planting barley in the fall as a nurse crop with alfalfa, which provides protection to alfalfa seedlings from cold weather. Presentations also covered fertilization and irrigation methods.

Quarter Highlights

- ✓ A Forage Field day for 100 trainees was held in November at the time of field preparation and seeding. These first five field days included an Alfalfa Overview and Hay Machinery Demonstration; Site Selection, Site Preparation, Seeding and Irrigation. Additional Field Days are planned for spring 2010.

Next Quarter Highlights

- There were 2.2 MT of the improved alfalfa variety PAC 78001 left over from the November planting. This seed will be used to establish an additional 100 Ha (400 donums). Planting dates will be mid-March. The Brillion seeders will be used to establish this spring alfalfa.
- Market development for alfalfa hay will occur so that the late winter harvests will be sold promptly.
- Forage Field days will be held late February, late March, and late April to demonstrate the hay equipment and discuss best methods for harvesting quality forage. It is expected that 25 growers or more will be present at each of the five sites per field day.



B. AQUACULTURE, POULTRY VALUE CHAIN



1. AQUACULTURE

Fish are a relatively inexpensive source of protein, yet consumption in Iraq is low due to inadequate supply. To revive Iraq's aquaculture industry, *Inma* addresses four critical constraints to fish production and productivity: water aeration; genetic quality of fish stock; appropriate quality fish feed; and live haul transport and farmers training. Efficient use of water is essential as Iraq continues to face drought. Emotional reactions by crop farmers who receive no irrigation water could threaten fish ponds, despite the higher economics returns from aquaculture.

a) Fish Production Improvement

Aquaculture Farmers Training

Five hundred Iraqi fish farmers are increasing their incomes from production and marketing of their fish through training courses being conducted at two major fish farms in the Babil Province - the Euphrates Fish Farm and the Middle East Fish Farm. The aquaculture training, supported by *Inma*, introduces techniques that will increase the production, quality and growth rate of the fish. By introducing mechanical aeration, pond preparation and management, the Iraqi fish farmers can triple the amount of fish being raised in the same amount of water. The training introduces proper feed management and an appreciation for feed quality to show how the fish can be brought to market size faster and more economically than methods now used in Iraq. The training introduces live haul techniques utilizing oxygen and mechanical aeration that will reduce the fish mortality to an average of 5%, down from 40%. Thus far, 268 fish farmers, including 48 women, from the Babil province have completed training. *Inma* also supplied the necessary training equipment such as aerators, live haul tanks, diagnostic testing equipment and classroom supplies. Each participating farmer receives 1,000 fingerlings of 40 – 50 grams each upon successful completion of the training.



Aquaculture Training Courses Completed

Class	Training Site	Dates	Participants
9	EFF	Completed Sep 27-Oct 1*	21
10	MEFF	Completed 11-15 Oct*	25
11	EFF	Completed 25-29 Oct	20
12	MEFF	Completed 8-12 Nov	20
13	EFF	Completed 22-26 Nov	21
14	MEFF	Completed 6-10 Dec	20
15	EFF	Completed 20-24 Dec	20
TOTAL			147

* **Highlight** – Classes 9 & 10 were a all-female classes.

Next Quarter Highlights

The Aquaculture Farmer Trainer Program will continue with the following schedule:

16	MEFF	Scheduled 3-7 Jan	20
17	EFF	Scheduled 17-21 Jan	20
18	MEFF	Scheduled 31 Jan-4 Feb	20
19	EFF	Scheduled 14-18 Feb	20
20	MEFF	Scheduled 28 Feb-4 Mar	20
21	EFF	Scheduled 14-18 March	20
22	MEFF	Scheduled 28 Mar-1 Apr	20

B) Genetic Improvement

Inma seeks to improve the growth rate and disease resistance of commercially-grown carp (the most common food fish) in Iraq. In May 2009, *Inma* imported 12,400 genetically superior carp fingerlings from Hungary which will be cross-bred with Iraqi heat-tolerant carp strains. The Euphrates Fish Farm and the Middle East Fish Farm agreed to care for these imported fish in quarantine (a GOI requirement) until 27 October 2009. The fish will reach sexual maturity and will be crossbred with the Iraqi carp starting in March 2010.

As of December 31 (238 days after importation), the average weight of the fingerlings was 2,200 grams, which represents significant growth. The imported fingerlings from Hungary have been growing approximately 35% faster than common Iraqi carp.

The Hungarian broodstock and Iraqi broodstock have been selected and placed in holding ponds also segregated by gender and receiving enhanced diet in preparation for the 2010 hatchery season. The Hungarian brood stock has been protected against possible winter season diseases by adding 1 Kg of Vitamin C to each ton of feed. Vitamin E was added to the feed (3 Kg per ton) to boost the sexual development of the male carp.



Each fingerling from the 2009 carp genetic improvement activity will produce an average of 6,000 fry over time. The first generation of crossbred fish is likely to number approximately 60 million in 2010. *Inma* will arrange for genetically improved carp generation to be sold as fingerlings and broodstock to local farmers and to the other hatcheries. The new carp will be on the market in 2011. Broodstock can breed each year over their five years of life, providing a sustained source of faster growing fish until 2015.

Next Quarter Highlights

- The broodstock growth rate and health will continue to be monitored and evaluated on a regular basis as they are fed a high protein diet.
- The hatchery season is scheduled to start the last week of March 2010 with training of 50 hatchery managers.
- Four Aquaculture Industry Roundtables will be held, one each in Wasit, Babil, Sulaymaniyah, and Baghdad, to assist industry members in responding to market demands.



Evaluation of 2007-08 Aquaculture Trials

In 2008, *Inma* conducted "Fish Grow Out Verification Trials" to demonstrate to 100 Babil farmers the impact of applying improved aquaculture practices to increase fish growth at lower cost in shorter time periods. During this quarter, *Inma* evaluated the project outcomes and the degree of positive impact. The demonstration project met its objective that "the advanced fish farming technology and processes would result in farmers using improved technology and getting more income from their fish farms".

The 100 fish farmers supported by the project increased their incomes. In 2009, farmers sold an average of 413 carp each, 2,891 fish per week, selling at \$3.30 each. This means a weekly income of \$9,540. Farmers sell their fish at highest prices from mid-March to mid-May when the low supply of available carp meets high demand, generating the best selling price. During this two-month selling season a farmer earns \$76,322. According to the farmers, before they received support from *Inma* their incomes were 50% lower as they sold half as many fish. Farmers in 2009 use mechanical pond aeration techniques and use less flowing water through the pond for aeration. This is especially important in the drought years since 2007.

2. POULTRY

Farmers in the poultry industry receive the majority of their support from local PRTs.

Inma meets with the Iraqi Poultry Producers Association (IPPA) to discuss points of intervention in the poultry value chain. The IPPA represents poultry producers, feed producers, processors, and markets. Their consensus confirmed *Inma's* 2009 industry

growth projections and conclusion that the most useful intervention would be in the availability, quality and cost of feed. Constraints that drive up the cost of feed are the low quality and high cost of the raw materials.

Next Quarter Highlights

- Three Poultry Industry Roundtables scheduled, one each in Diyala, Babil, and Erbil provinces to help industry representatives frame issues of mutual concern.
- Coordination with the IPPA.
- Short-Term Poultry Nutritionist to assist the Poultry Associations and Feed Mills on use of local materials for composition of locally-produced poultry.

3. PROTEIN CONCENTRATE FEEDS

Protein-concentrate feed accounts for up to 65% of the operational cost of production of fish and poultry. *Inma* seeks to reduce feed cost from \$600/ton to \$500/ton. *Inma* economists estimate this reduction in feed cost will result in savings of \$50,000 in operating costs per poultry farm, per growing cycle, assuming a farm of 100,000 birds.

Feed production infrastructure in Iraq has been devastated by the war, sanctions and civil unrest. Reconstruction of a modern large-scale milling industry will be high cost. Smaller mills have come into existence to fill the void left by the large mills. Feed produced by these small mills does not meet the component standards necessary for fish and poultry operators to gain maximum productivity.

Inma assists the milling industry through the upgrade or refurbishing of competitively-selected feed mills to a monthly capacity of 1,600 MT. *Inma* will also institute management training on modern feed production techniques to lower the cost of feed production.

Forty-two farmer associations in eight provinces will increase their working capital through participation in the retail sale of poultry or fish feed. The associations were selected in collaboration with the PRTs for their willingness to operate as businesses. The associations will purchase feed from a local mill each month and sell it to their members. As Many as 3,000 poultry and fish farmers could benefit through their associations. Each association will receive a monthly \$10,000 voucher from *Inma* over a six-month period to assist in the commercial purchase of feed. The associations put up the remaining funds, approximately 65% of the feed cost. The voucher program helps ensure a cash flow for six feed mills that are learning how to import feed ingredients in bulk.



Quarterly Progress

Inma awarded four feed mill upgrade grants of \$1.35 million each. An RFA was issued and two additional feed mills were pre-selected for feed mill upgrade grants. Farm Service Associations applicants have been vetted for participation in the Capitalization Voucher Program and are pending PRT and USAID approval prior to signing of MOUs.

Inma staff also conducted research, site assessment visits, and prepared numerous economic analyses of the fish and poultry industry value chains to develop a comprehensive program description for the feed mills.

To promote the bulk purchase of raw materials in order to lower the cost of finished feed, *Inma* is providing Capitalization Vouchers to Agricultural Associations that will serve to guarantee the Feed Mills a minimum monthly sales volume and will also assist in generating working capital for the participating Associations. Each month, seven vouchers per feed mill will be issued to the respective Associations, worth \$70,000 towards the purchase of a total of 280 tons of finished feed.

Next Quarter Highlights

- Grants will be awarded to two additional poultry feed mills
- Feed mill improvements and technical assistance will commence
- Agreements with up to 42 farmer associations will be signed for their participation in the retail sale of poultry or fish feed.



4. FEED ANALYTICAL LABORATORIES

Adulteration of agricultural commodities is widespread in Iraq. Buyers must be particularly careful at the time of purchase to ensure that advertised content, e.g. percent crude protein, is truly the percent in the delivered feed. Extended delay in laboratory analysis prevents buyers from testing the feed being loaded on their truck at time of purchase. To establish the compliance of the transaction, conveniently available sampling is necessary.

A properly equipped and managed Feed Analytical Laboratory is the tool that guarantees quality control to the buyer of the raw materials to produce the feed and the processed feed utilized by the grower.

Presently in Iraq there is no Feed Analysis Laboratory operating on modern methods. Processed feed, raw materials utilized in feed, and forage feed must be sent out of Iraq to determine their components and energy level. A Feed Analysis Laboratory utilizing modern and automated equipment can give accurate results within minutes of receiving the sample. The laboratory analysis will help purchasers know if their feed has the protein content for which they paid.

Inma has pre-selected three companies to receive grants, one for each location in the Northern, Central and Southern Iraq for the operation of the laboratories. All three laboratories will be open to both feed producers and the public for the analysis of feed samples. Once established, the laboratories must remain operational and open to the public for a minimum of one year. *Inma* will procure and supply all necessary feed analysis equipment to the selected companies. *Inma* will cover the cost for training the laboratory technicians on the new equipment by the manufacturer; with five technicians to be trained for each of the three locations. The cost of the infrastructure for the laboratory and pay for the laboratory technicians are the responsibility of the grantee and may be paid for with the revenue produced by the laboratories.

Next Quarter Highlights

- Grants will be signed with the laboratories. The laboratories will agree to provide services to *Inma's* feed mills, as well as the citizens of Iraq, for reasonable fees, using appropriate proven up-to-date practices under LBG/*Inma* guidance.
- Equipment will be supplied to the laboratories.

C. HORTICULTURE VALUE CHAIN

The *Inma* horticulture value chain consists of improving cultivars, greenhouse and open field vegetable production, and post-harvest grading of fruits and vegetables.

Iraqi farmers have developed methods that allow them to alleviate some of the climatic, soil and water problems that limit their production. New cultivation techniques, based on a better



understanding of crop science, and new seed varieties have been developed in countries with similar climatic limitations, but Iraq has been closed to this information for many years. The introduction of new agricultural production technology requires that *Inma* identify Iraqi farmers with the courage to adopt untried (in Iraq) practices. Where these changes have gradually taken place over the last 20 or 30 years in other countries, *Inma* asks the Iraqi farmer to make this leap all at once. This takes an individual with courage and confidence.

He risks both livelihood and the ridicule of his neighbors if the technology does not live up to its promise. The *Inma* staff has great regard for their Iraqi partners who are accepting the challenge of improving their production through the adoption of new technology.

Produce markets are segmented by price and quality, and generally there is a market at some price for all segments based on supply and demand. To be profitable, the producer must target a market segment and produce for its quality demands and timing. *Inma* advisors cannot overvalue western preferences in the evaluation of local market demands.

The Iraqi market may not be willing to pay for the same quality pack that other countries demand as the norm.

Overall quality is produced in the field through choice of variety, cultural practices and proper care. Fruit normally needs to be thinned to promote greater size. Trees and vines have to be pruned and trained to maximize the interception of sunlight to improve both yield and quality.



Quality must be preserved through proper harvesting techniques, as well as post harvest handling and care. Decisions related to packing and grading should result in the combination of packs which best meet the demands of the market, while maximizing the return to the grower.

1. ORCHARDS & VINEYARDS

Inma expanded the Orchard and Vineyard program in 2010, with a plan to import and distribute 110,000 grafted fruit trees and seedless grape vines. These varieties extend the time when fruit is in the market because the varieties planted have different production periods (early versus late production). *Inma* staff polled PRTs for interest and then selected appropriate varieties for delivery in January 2010.

Quarterly Progress

2009 Orchard and Vineyard Plantings

During this past quarter, *Inma* made monthly technical inspections of the plantings in Karbala, north Baghdad, and Sulaymaniyah. Inspections of pomegranate, grape, and stone fruit (apricots, nectarines, peaches) plantings show that the trees are in excellent condition with a survival rate above 90%, comparable to modern industry standards. Required cultivation practices of weeding and watering are being done correctly, although part of the failure rate is explained by improper intercropping by the orchard owner. For producers with established orchards or vineyards, *Inma* will provide specialized training and technical assistance to introduce better practices that increase the volume and quality of fruit being produced.

Next Quarter Highlights

In 2012, these orchards will produce about \$3M in yearly sales of high-quality peaches, nectarines, apricots, seedless grapes and plumb. In conjunction with these new plantings, 2,000 orchard owners will be trained in pruning, insect control and profit maximization.



January 2010 Orchard & Vineyard Planting Organization

110,000 fruit trees comprised of 12 varieties of new stone trees and vines of seedless grapes will be imported from the US in January 2010. Additionally, 15,000 superior Iraqi varieties of stone fruits and grape vines will be distributed. The trees will be distributed to cooperating 114 farmers in approximately 27 production clusters throughout *Inma's* three geographical focus areas in Iraq. In preparation for orchard and vineyard plantings, *Inma* Field staff completed all required critical preparations at the farm level, including soil testing, engineering reports, mapping out the precise planting location of both orchards and vineyards, and orchard land and irrigation preparation. The new orchard saplings are expected to arrive at all of the GFAs by mid-January. The cooperating growers will provide operational costs by supplying labor, management, and agricultural inputs. Growers will attend technical assistance field days, where critical techniques in management and improved production technology will be demonstrated. The trees and vines were selected from proven varieties in the US that are appropriate for Iraq due to low chilling requirements and excellent fruiting quality and quantity. *Inma* will assist the owner of each orchard/vineyard in writing a management plan for the first year of operation of the orchards and vineyards. This plan will be used by *Inma* to monitor the required field management of the orchards.

Winter Orchard & Vineyard Work

The technical field staff were trained in winter orchard and vineyard work about the new plantings, one-year-old and mature orchards pruning, soil maintenance and IPM control. The targeted technical assistance consists of *Inma* practical work in the farmer's orchards and vineyards. *Inma* technical staff trained groups of 10-15 farmers at each location, who will spread the techniques to their neighbors.

Next Quarter Highlights

- *Inma*, during January 2010, will establish 114 orchards and vineyards in farmer's land, 808 donums, with 110,000 plants of 27 varieties of stone fruits (apricot, peach, nectarine, and plum) and grapes imported from California and an additional 15,000 plants of superior local varieties will also be planted.
- Technical monitoring of orchards and vineyards planted in 2009 and 2010 will continue. These inspections will be done on the trees once every month. The inspections monitor the health of the trees, the care of the trees including irrigation, soil fertilization, weeding, disease and pest control, and the timely application of other treatments such as thinning, etc.
- A general training course in Integrated Orchard Management will be made available starting in February 2010. 2,000 farmers identified in collaboration with PRTs are expected to attend this training through June 2010.
- Orchard Industry Roundtables will take place in Sulaymaniyah, Karbala and Baghdad.
- 2,000 farmers will be trained on orchard and vineyard improved production technologies.

2. GREENHOUSE PRODUCTION

Inma provides technical assistance and training to six greenhouse clusters so that commercial greenhouse farmers can demonstrate how to control vegetable growth and quality. Crops are produced until June. The technical assistance and training includes the basics of greenhouse operation, disease prevention, planting, irrigation, and environmental control, application of fertilizer and pest control, and understanding of the variety requirement for optimal greenhouse production.

The program began in November 2009 for the 2010 crop, with planting in low plastic tunnels to commence in January and continue until April. Production areas will be focused in Wasit, Diwaniyah, Babil, Karbala, Anbar, Baghdad, Kirkuk and the Kurdish north.

Quarterly Progress

During this past quarter, beginning in November *Inma* initiated the targeted technical assistance program. Within the six major clusters of greenhouses in Iraq containing more than 3,000 greenhouses, *Inma* is working directly with more than 35 greenhouse owners who operate more than 660 greenhouses. These growers have an investment of more than \$2 million US employing more than 700 persons. *Inma* will provide technical assistance to these growers to overcome production and marketing constraints. Lessons learned and best practices developed will be shared to disseminate new effective practices that will increase yields and reduce production costs.



The contractor based training programs in greenhouse and open field production of fruits and vegetables will begin on January 16 to compensate for the absence of formal agricultural extension in these production areas. PRTs have nominated farmer associations from which trainees can be drawn. Over the 2009-2010 growing season, training is expected to reach approximately 9000 farmers.

Strawberry Demonstration Program

An *Inma* consultant trained 10 strawberry farmers on best practices for introduction of strawberry production. *Inma* staff then supervised land preparation and strawberry plantings of 15,000 strawberry crowns in 10 locations of one donum each, planted in mid-October. *Inma's* support of the use of high efficiency drip irrigation, plasticulture, and appropriate nutrient management as well as detailed management technical assistance has resulted in excellent quality strawberry plants under the Iraqi field conditions.



Harvest of strawberries in the southern areas will begin in January using *Inma*-supplied packaging materials. The anticipated harvest in central region will follow in a few weeks. In the northern GFA, harvest will begin mid-March 2010.

Next Quarter Highlights

- *Inma* will continue to provide technical support for strawberry growers and support marketing of strawberries with nine growers
- The 2010 Greenhouse Technical Assistance Program will continue to provide day-to-day technical support in participating partner's greenhouse's to develop technical training centers in six locations
- Organize multiple field days at each greenhouse and open field training center
- The 2010 Open Field Vegetable Technical Assistance Program will commence. *Inma* has worked with PRTs to identify commercial vegetable farmers for participation in the program, who will also receive extensive technical assistance and advanced hands-on training. More than 175 donums of advanced open field crop will be planted in the three geographic regions.
- The five-day general training courses in Greenhouse Production will start January 16. 1,500 farmers identified in collaboration with PRTs are expected to attend this training through June 2010.
- A general training course in Open Field Vegetable Production will start on January 16, 2010; 1,260 farmers identified in collaboration with PRTs are expected to attend this training through June 2010.

- Greenhouse Industry Roundtables will take place in Sulaymaniyah, Karbala and Baghdad, bringing together growers, suppliers, packing house operators and financial institutions.
- Forty donums of early melon production in Diwaniyah.



3. POST-HARVEST MARKET TECHNOLOGY

Inma studies indicate that up half of all vegetables and fruits are lost after harvest to crushing, bruising, rot, and filth. In the hot months of summer, losses in the market can reach 80%. Farm gate buyers discount their price to farmers based on the anticipated losses.



Inma is in contact with a number of supermarkets and food retailers in Iraq and is working toward product export of selected products such as table dates. It is essential, therefore, that the GFA staff understands the principals of these subjects and in particular, traceability.

Inma works with five packing houses that will serve consolidators and farmers as a central sales point for the produce they are marketing. Two facilities in Baghdad (Taji and Adhamiyah) are already operating with construction financed in part by *Inma*. Three packing house grantees were selected during this quarter and have broken ground. Three other packers have associated with *Inma* in return for technical assistance in broadening the range of products that they can pack.

Quarterly Progress

Packing Facilities

Two packing facilities are well positioned to take advantage of the up coming winter crop production period. Majority of the packing house activity will commence in February 2010 and continue through July. The three *Inma*-supported packing houses will be established and operating in March 2010.

	Packing House	Status	Notes
1	Al-Rabee Packing House Baghdad	Completed and Operating	Working 50 jobs created more than 260 tons processed
2	Taji Packing Facility	Completed	Working 10 jobs created 20 tons processed in Dec before closure due to security issues
3	Mabain Al Nahreen Org. for Agricultural Dev. South Razwanayah - Baghdad	Operational by March 2010	Site preparation on-going
4	Al-Jazera Western Co. for General Trading Ltd. Fallujah-Anbar	Operational by March 2010	Redesign completed
5	Dejlat Alkhair for General Contracting and Trading Ltd, Karbala	Operational by March 2010	New site purchased, with construction ongoing

6, 7, 8 – Packing houses with technical assistance only

Three Packing House MOUs Signed

The three recipients of grants for pack-houses received training on Business Planning. These new revised business plans were prepared and submitted to *Inma* by the middle of October. *Inma* Engineering staff assisted in designs for the pack-houses in order to encompass regional crop variations and packing needs.

Al-Rabee Packing House

Rabee is now fully operating with new season grapes and dates packed in clam packs (500 grams) for sale in the local wholesale market and retail shops. The owner has modified the cooler reception unit and has installed a washing/drying line. Samples of the dates will be sent by *Inma* to Europe for export evaluation. The new season strawberries will be packed through the facility along with other products currently being identified.

Taji Packing Facility

The Taji Packing Facility initiated vegetable packing operations in early December for wholesale. Packing started with bulk potatoes and local tomatoes and cucumbers. Due to security issues, the owner suspended operations before the end of December.

Next Quarter Highlights

- Construction of the next three packing houses will be completed in March.
 - *Inma* will continue to provide technical assistance, training, and business development support to all five packing houses.
- 
- Table dates have been evaluated by a major European buyer for possible export. *Inma* will receive a similar evaluation for pomegranates.
 - *Inma* will be reviewing the technical specifications and providing assistance for packing house owners who wish to invest in additional plant machinery for greater efficiency of handling.
 - *Inma* will host a “Market Demand-Driven Production” conference on February 11 at the Al Rashid Hotel in Baghdad
 - *Inma* will host a “Dates Marketing Conference” on February 22 at the Al Rashid Hotel in Baghdad

Food Safety and Traceability

The initial work done by *Inma* on HACCP needs to be updated and linked directly to traceability in order to provide a more food safety conscious image to the consumer. In actual fact, to attain the heady heights of export, traceability has become mandatory throughout the world and must be the next major step for Iraqi Agribusinesses. New presentations have been prepared and are currently being translated into Arabic.

Next Quarter Highlights

- Strawberries will continue to be prepared for direct retail marketing.
- Conference to stimulate export thinking and emphasize the importance of rebuilding export markets such as dates.
- Through the date and standards conference, it is expected to be able to accelerate the development of associated pack-houses to enhance export initiatives.

Horticulture Industry Development

Olives

Olive groves in Iraq are concentrated in the Bashiqa area of the Ninawa Plain. Trees have been growing in the area for over 500 years. The 450,000 trees of various ages produce 50-75kg/tree of olives per year. The olives produced in the area are well regarded and highly-sought. Over 60 percent of the trees are currently owned or maintained by 200 members of the Al-Zaytoon Olive Association. Most of the production in Bashiqa is used for table olives which are processed by the Association.



To expand the financial stability of the Association, *Inma* has supplied three modern olive oil presses purchased from Italy that will allow the Association to produce virgin olive oil meeting strict sanitary standards. A grant was made in mid-November to the Al-Zaytoon Association in the amount of \$95,000 to support the purchase of local olives for processing and to provide training in oil grove maintenance.

Inma's Business Development team assisted the Association to complete a Business Plan for the pressing operation. In preparation for the launch of the pressing operation, the Association invested in a new facility to install the presses. The Association received assistance from *Inma* Engineers on the design and construction of the building and *Inma* contributed some of the materials needed to complete construction and support the operation of the presses.

4. IRRIGATION

Water management and soil deterioration due to the presence of high salt contents continue to be of mutual concern among *Inma* and our partners in the agribusiness community.

Quarterly Progress

Inma's Irrigation Team has conducted two training activities on Irrigation Scheduling for 36 farmers from Farmers Associations from Al-Hamdanya and Bartella districts in Ninawa province. To help manage soil moisture, *Inma* provided tensiometers to five forage producers to ensure proper soil moisture and adjust water





supply. *Inma* field staff have conducted on-site trainings for 21 farmers on how to install tensiometers and how to record and use the information collected from tensiometers.

At the request of Baghdad ePRT West, three training courses were held in November and December for stakeholders from the Abu Ghraib area, including a field day. A total of 94 people, including 80 farmers were trained on the principles of irrigation and the application of sound methods of water usage in order to maximize available

resources. During the field day, the activities were focused on practical issues like: a) determining the soil texture and the soil moisture content by observing its feel and appearance; b) installing tensiometers and discussing about how to interpret and use the gauge readings; c) conducting an infiltration test; d) explaining the use of a rectangular weir for measuring the water entrance into border strips; and, e) conducting an advance test to determine the optimum length of border strips.

Irrigation calendars are being prepared to be distributed to farmers that are going to receive orchards and vines. Calendars are intended to promote easy adoption of improved water management practices. Calendars are being developed to show recommended irrigation intervals for optimum water management. A total of 120 irrigation calendars will be distributed.

Measurement of the infiltration rate using the double ring infiltrometer, soil and water sampling, and topographic survey was done in Diwaniyah for the open field melon production, aimed at demonstrating how vegetables respond to improved cultivation practices in the open field. A lay-flat pipe irrigation system will be used for watering the melon fields. This irrigation system has been selected because it constitutes an alternative low cost improvement of the current gravity irrigation system.

Irrigation Conference (Mansour)

On December 6, *Inma* sponsored the “Irrigation Water: A Precious Commodity” a conference that brought together private and public sector irrigation water stakeholders to discuss Iraq’s current water resource management challenges, and prospects for improved conditions. The forum discussed the benefits of improved water resources management to help minimize water wastage. A total of 61 persons attended the event, with representatives from Iraq’s Ministries of Water Resources, Agriculture, Environment, Transportation, and Planning and Development Cooperation, as well as leading experts, academics, private companies, PRT representatives and USG officials.



Irrigation Roundtable (Erbil)

An Irrigation roundtable took place on November 23 in Erbil. More than 30 persons from the Ministry of Agriculture and Water Resources from the Kurdistan, the Provincial Council and the private sector discussed irrigation issues planning should there be another dry year.

Next Quarter Highlights

- A major conference on Irrigation is currently being planned for March to summarize the past year's accomplishments
- A general training course on Irrigation Principles and Applications will be made available starting on January 17 in Baghdad Area; a total of 1,125 farmers identified in collaboration with PRTs are expected to attend this training through May 2010.
- Technical assistance on irrigation related issues to forage, strawberry and orchards and vines farmers will continue.



D. BUSINESS DEVELOPMENT SERVICES

Inma's Business Development program complements the horticulture, livestock and aquaculture programs.

1. FIRM-LEVEL DEVELOPMENT

Inma supports firm-level development through direct assistance with *Inma* staff, training in business management, association development assistance, and through Industry Roundtable meetings.

Inma offers assistance in financial management, operational management and business planning. This assistance gives companies the competence to manage their financial resources and control unit costs, predict cash flows and evaluate market opportunities. The objective of this assistance is to help agribusinesses manage the day-to-day aspects of running a business, respond to competitive conditions and prepare for future growth. Many of the *Inma* Portfolio Companies are owned and operated by recently formed associations. Other associations will participate in the Feed Mill Program. *Inma* assists these associations to operate as viable businesses. *Inma* will provide assistance to these associations through workshops and direct technical assistance in legal compliance and registration, membership management and retention, and Board of Director development and strategic planning to ensure long-term sustainability

Business roundtables help formulate and prioritize issues of the sector. This collaboration can be the basis for improved public-private dialogue as the industry begins to identify the issues that are critical to the industry and also to collectively speak as one voice about the priorities and policies that are necessary to foster a sound agricultural sector.

The roundtable value comes from the discussion and interaction of the participants. After a foundation is laid with the initial Roundtable meetings, participants will take ownership of the roundtables and continue them without *Inma* assistance.

Quarterly Progress

Management Training & Direct Firm-Level Assistance



*Financial Management Training in Erbil
(Group Work)*

Business Development initiated its Business Management Training Workshops aimed at improving the management capacity of *Inma*-supported companies. A series of two workshops consisting of a three-day workshop on Financial Management and a four-day Operations and Business Planning Workshop will be held in each of the three Geographic Focus Areas (GFAs). This quarter, the first workshop, a Financial Management Workshop, was held in Erbil from December 19-21, 2009. The workshop had 30 participants representing 15 companies.

In October *Inma* hosted owners of grant recipients for the Mabeen Al Nahrain, Al-Jazeera and Dijlat Alkhair Packing houses to discuss their business plans. These plans are a milestone which had to be met before any construction could commence. *Inma's* business development staff met with Al-Rabee Packing Shed to discuss marketing strategy. After good sales during Ramadan, they were looking for additional assistance in dealing with competitive prices, consumer requirements, local crops availability, greenhouses crop capacity and other management problems.



Middle East Feed Mill

Business Development provided direct assistance to six feed mill grantees in the development of their business plan and in the identification and vetting process of the Associations that will be participating in the Capitalization Voucher Program.

Industry Roundtables

During this Quarter, 21 roundtables were conducted on Aquaculture, Horticulture, Red Meat, Opportunities for Tourism, Business Management, Poultry, Irrigation and Agricultural Investment Climate. Those roundtables took place in different provinces: Erbil, Babil, Karbala, Wasit, Sulaymaniyah, Ninawa, Kirkuk, Anbar, Najaf, Baghdad and Dahuk.

Among the 21 roundtables, there was a three day educational field day roundtable on Strawberry in Erbil and five field days on Forage Demonstration in Ninawa, Anbar, Kirkuk, Wasit and Baghdad. The strawberry and forage field days combined training and discussion.

Some of the outcomes were:

- Colleagues within the same value chain were introduced to each other. In several roundtables this led to coordination and business among participants.
- Farmers were introduced to best agricultural practices, methods and technology through the presentations given by the academics and *Inma* representatives. This received positive reaction from the participants and led to training plans.
- Discussion of challenges encountered within the value chain and identification of better solutions.



- Participants shared their successful practices in Horticulture and Aquaculture. This was praised by their colleagues who showed willingness to repeat the forage and strawberry practices.
- Raised recommendations to the Government officials participating in the roundtable.

Next Quarter Highlights

- *Inma* will continue its program in Management and Operational Capacity Building. This will entail workshops in Financial Management, Operational Management and Business Planning and Analysis.
- On-site technical assistance will also begin with selected recipients to build upon the concepts and principles covered in the workshops. The level of effort to be provided will be based on the continued monitoring and evaluation of the progress that each of our Portfolio Companies is making.
- The Business Development Team will work closely with each portfolio company to monitor the implementation of their business plan and the overall management of the company. Technical assistance will be available in a timely manner so that issues do not become large problems that affect the company's operation.
- *Inma* will initiate training in Association Management. This will involve eight two day workshops in seven provinces, followed by on-site technical assistance to selected participants, such as those that will be involved in the Capitalization Voucher Program.



In collaboration with the Value Chain Teams, GFAs and the PRTs, *Inma* will continue Industry Roundtables. Specific topics to help expand the commercial success of participating companies will be explored along with topics that help improve the operating environment. Examples include Roundtables on Feed Production in Iraq, Business Management topics such as Cost Control strategies; and Strawberry Marketing.

2. MARKET INFORMATION

Anka, a private Iraqi market intelligence company and recipient of an *Inma* grant, collects daily and weekly market prices of fruits and vegetables, animal products and farm inputs at wholesale markets in all provinces in Iraq and Dubai. Daily and weekly price reports are disseminated on same-day basis to subscribers via email, website, mobile phone text messages, radio broadcasts and newspaper articles. Anka also publishes weekly market analysis reports for Baghdad and other major regional centers that highlight major developments in the markets for selected farm product. Quarterly summaries of seasonal price trends for major products help to identify peaks and valleys of annual marketing cycles. Another benefit of market information program is the promotion of standardized grades for farm products in Iraq.

Anka, which was initially established through grant mechanisms, has primarily focused its activities on data collection rather than revenue generation. *Inma* has been working with Anka to develop revenue generated through commercial sales of its products and services. This quarter, Anka hired a Sales Manager that is now working to develop a sustainable revenue model.

Quarterly Progress

Anka released its regularly scheduled quarterly report of “*Monthly average price charts for vegetables and fruits in Iraq*” available in electronic format. For each product the report provides a table of monthly average wholesale prices in 19 markets in provincial capitals. An additional matrix table indicates how closely prices in a given market correlate with price movements in other markets.

Next Quarter Highlights

Over the coming months Anka plans to continue its efforts to generate revenue from private commercial sources. This may entail a shift in its revenue model and/or the development of new products and services. With the addition of a new Sales Manager at the end of last quarter, Anka should see increased revenues this coming quarter.

3. AGRICULTURAL LENDING

The majority of Iraqi agribusiness have limited access to debt capital. Currently, farmers must rely on equity capital and supplier credit. With limited financial resources available, farmers are reluctant to invest in more efficient production technologies, deviate from current production cycles or innovate with different crop types unless there is a high probability of success.

Access to capital is hindered by the lack of appropriate records required to complete loan applications, unreasonably high collateral requirements, uncertain return on investment and the inexperience of financial institutions in lending to agriculture. *Inma* is addressing several of these deficiencies by providing loan capital to Micro-Finance Institutions (MFIs) and Private Commercial Banks.

Through two MFIs (Al-Thiqa and Izdiharona), \$5 million of *Inma* funds will reach farmers and small agri-businesses in the Governorates of Ninawa, Dahuk, Erbil, Kirkuk, Sulaymaniyah, Diyala, Babil, Karbala, and Wasit. The purpose of the loans varied to cover agricultural supplies, water pumps, calves, sheep, feed, diesel generators, and various other agricultural and agribusiness supplies, services, and equipment.

During this quarter, Izdiharona completed its lending program for Karbala, Babil and Wassit for \$1 million. In addition, the Regional Government of Kurdistan initiated an agricultural finance program that offered funds at rates lower than MFI rates, which reduced the loan origination rates for Al-Thiqa in the Kurdistan region.

Quarterly Progress As of December 31, 2009, the following data is available:

SUMMARY TABLE by Province

MFI	Province	CUMULATIVE	
		LOANS	VALUE
Izdiharona	Karbala	126	\$409,250
	Babil	180	\$584,786
	Wasit	10	\$33,821
	sub-total	316	\$1,027,857
Al-Thiqa	Ninawa	343	\$1,030,400
	Dahuk	83	\$351,100
	Erbil	44	\$152,400
	Sulaymaniyah	27	\$109,300
	Diyala	272	\$722,200
	Kirkuk	104	\$276,100
	sub-total	873	\$2,641,500
TOTALS		1189	\$3,669,357

SME Lending

On December 21, 2009 *Inma* signed a grant agreement with the Iraqi Company for Financing Small Medium Enterprises (ICFSME). ICFSME is a non-bank financial institution, incorporated in May 2009 that allocates loan capital to its shareholder banks to lend to small and medium enterprises (SMEs). *Inma* granted \$1 million to ICFSME to target agricultural enterprises in Anbar province through two participating banks, North Bank and Bank of Baghdad. They operate two branches, one in Fallujah (Bank of Baghdad), and one in Ramadi (North Bank). Banks will utilize allocations to fund loans to SME borrowers engaged exclusively in Agricultural Production and Processing activities. Disbursement will be under two categories:

- Category A: Loans 10 - 50 million Iraqi dinars (approx. \$8,500 to \$42,500 respectively): The Bank will co-fund a minimum of 10% of the loan principal on all loans in this category.
- Category B: Loans over 50 - 100 million Iraqi Dinars (approx. \$42,500 to \$85,000 respectively): The Bank will co-fund a minimum of 20% of the loan principal on all loans in this category

Agricultural Lending Training

The *Inma* Agribusiness Lending Training Program was implemented to improve the capacity of Iraqi Financial Institutions (microfinance institutions and commercial banks) to lend to farmers and agribusinesses. The objective of the training was to increase the number of Financial Institutions making loans to agribusinesses and increase the overall number of loans to the agricultural sector. The focus of the training was assisting financial institutions in developing appropriate agricultural credit products and how to access and make loans to the sector.

Two separate three-day workshops on improving lending practices in agriculture were conducted. The first one took place in Baghdad on 23-25 November, 2009 and the second one in Erbil December 5-7, 2009. Participants consisted mainly of senior loan officers and middle managers representing 10 micro-finance institutions and 13 commercial banks. In total there were 60 participants in the workshops.

Feedback received from the participants indicates that the training was helpful to them in:

1. Understanding the difference between the agriculture loan cycle and the business loan cycle.
2. Introducing how to analyze an agricultural loan.
3. Learning strategies to lower risk and exposure in agricultural lending, especially in areas related to borrower selection, loan terms and loan recovery.
4. Providing techniques for loan analysis and management.

Next Quarter Highlights

ICF-SME will initiate its disbursements in Anbar.



Agricultural Lending Training December 5-7, 2009 in Erbil

***Inma* Field Activities**

The USAID/*Inma* Agribusiness project is becoming an increasingly complex development effort. Along with the technical and administrative staff based in Baghdad, *Inma* maintains a current field staff of 73 technical Iraqi personnel working from 14 provincial offices.. These offices and staff are organized into three geographic focus areas (GFAs): Northern, Golden Crescent (Central), and Two Rivers (Southern).

Inma field staff provide essential support for the technical assistance and training being delivered to farmers, agribusinesses, and private sector representatives across Iraq. In effect, they are an extension service in their own right. They identify local needs in their respective provinces, communicate those to relevant stakeholders, assist in the design, development, and coordination of the assistance, followed by routine project monitoring and oversight. Training is a large part of Iraqi field staffs responsibilities. This can vary from simply assisting with logistics and coordination, to serving as actual trainers themselves, replicating proven agribusiness training materials at the field level to maximize *Inma's* reach.

Iraqi field staff work with PRTs to develop regional strategies for the most effective use of *Inma* targeted technical assistance, general extension training, and business roundtables. In another example, Iraqi field staff coordinate closely with micro-finance institutions to ensure that small agribusiness owners are aware of opportunities and application procedures for micro-loans to support their operations.

Inma field staff are responsible for conducting on-the-ground surveys and research for identification of potential local collaborators in open field vegetable production, greenhouse management, and orchard development and management, key pieces of *Inma's* technical assistance and training strategy.

