

Agri-Input Market Development in Azerbaijan

**Quarterly Report
July–September 2003**

Submitted to

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by

IFDC

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Acronyms and Abbreviations

AAIDA	Azerbaijan Agri-Input Dealers Association
ACDI/VOCA	Agricultural Cooperative Development International / Volunteers Overseas Cooperative Association
AMDA	Agri-Input Market Development in Azerbaijan
COP	Chief of Party
CPP	crop protection products
DAP	diammonium phosphate
EC	European Commission
GTZ	German Agency for Technical Cooperation
IDP	internally displaced people
IFA	International Fertilizer Association
IFDC	An International Center for Soil Fertility and Agricultural Development
MAP	monoammonium Phosphate
MOP	muriate of potash
Mt	metric tons
NGO	non-governmental organization
NPK	nitrogen, phosphate, kalium
RECP	Rural Enterprise Competitive Program
SO	Strategic Objective
SOP	sulfate of potash
STC	short-term consultant
SSP	single superphosphate
TSP	triple superphosphate
TTC	Technical Training Center
UN	United Nations
USAID	United States Agency for International Development
VAT	value-added tax

Agri-Input Market Development in Azerbaijan

Executive Summary

The “Agri-Input Market Development in Azerbaijan” (AMDA) project started in February 2002. This report covers the period from July to September 2003. The main aim of the project is to develop a reliable and efficient private sector distribution system for appropriate agri-inputs and the technologies they embody. This will be accomplished by establishing an agri-input dealers association supported by business development advice, credit and finance facilitation, association building as well as technology transfer and private sector extension to dealers, farmers, and related institutions and organizations.

Highlights for the reporting period include:

- Azerbaijan Agri-Input Dealers Association (AAIDA) membership increased to 72 dealers by the end of September 2003; association revenues total \$5,328.
- Attending international conferences in Moscow and St Petersburg improved trading relations and resulted in the importation of 5 new kinds of fertilizers.
- Agri-input dealers spent \$34,350 on construction of shops and warehouses; \$55,000 was invested for a flour mill and cheese processing plant; dealers received credit amounting to \$35,000.
- One dealer purchased a 400 m² greenhouse and started operations for growing cucumbers.
- A 20-minute TV documentary on fertilizers and their use was developed and broadcast to approximately 2 million viewers.
- AAIDA Executive Council discussed and ratified the Association’s Standard Operating Procedures Manual.
- Potato growing productivity increased by 14% in project supported southern regions; similar results were achieved in western project regions increasing the demand for high quality seed potatoes (see appendix 5).
- 3,663 farmers learned under improved fertilizer management how to increase wheat yields averaging to 5.5 tons/ha (see appendix 6).
- The Israeli Embassy granted free training for three dealers to participate at the Mashav irrigation training course; one dealer attended the International AgriTec Fair and one policy

maker participated at the Agri-Business Conference organized by the United Nations (UN) and the Israeli Government.

Agri-Input Market Development in Azerbaijan

Introduction

For consistency and ease of understanding, the AMDA quarterly reports follow the format of the work plan submitted to the United States Agency for International Development (USAID) in April 2002. Progress is reported for each of the four program areas: business development, access to credit and finance, technical training and private extension service, and association building. Monthly and special technical reports provide more detailed information on AMDA activities and progress.

Operation and Management

During the reporting period the IFDC/AMDA project focused on establishing and strengthening work relationships with Strategic Objective (SO) 1.3 partners including other donors, local consulting companies, non-governmental organizations (NGOs), and public institutions. Mr. Yosi Galon joined the AMDA project as a short-term consultant (STC) and will contribute in setting up and managing greenhouses as well as provide technical guidance on irrigation issues. Various agricultural projects approached AMDA to supply technical information leaflets, brochures, and posters developed and published by AMDA.

The project mid term evaluation ended early July and the final report was accepted by USAID Office Baku and IFDC. Project approach and respective achievements received positive comments. Minor technical points require improvements.

Jim Stanelle conducted three training courses on wheat varieties, selection and cleaning during September.

Thomas Bottner, Export Manager, from the German potato seed breeding and supply company EUROPLANT visited the project in October for 5 days. Three meetings were held with individuals and a subgroup of AAIDA members to discuss the importation of seed potatoes for 2004 season.

The Israeli Embassy provided support to send Abdul Abdullayev, an agri-input dealer to the International AgriTec Fair in Tel Aviv. In addition, Fuad Karimov attended the Agri-Business Development Conference in Tel Aviv organized by the UN and the Israeli Government. Furthermore, three dealers were invited by the Israeli Embassy to attend a two-week Mashav irrigation training course in Israel.

During the first week of September the Chief of Party (COP) and Shahin Abbasov participated at the Agriculture Extension Education Conference in Eger, Hungary. Valuable insights were gained in agricultural extension systems in countries such as Poland, Hungary, Estonia, Moldova, Ukraine, Turkey, Greece, The Netherlands, and the United States.

Several meetings were held with the USAID Office Baku to discuss about future activities in the agricultural sector for the USAID Azerbaijan strategic plan 2004-2007.

Mrs. Kenul Ismayilova joined the project in July holding the position of Media Officer.

Highlights of Project Achievements

During this reporting period the harvest for various crops and vegetables took place. Dealers and farmers alike were very busy. Although weather conditions in spring with snowy periods and heavy rainfalls negatively affected yields, particularly wheat, all demonstrations plots did well and recorded yields above the national average. By the end of September, 72 dealers had paid their AAIDA membership fee.

Business Development and Training

The indicators for work plan year two are (until final discussion with RECP):

1. Provide Association members with market price information to assist in business decision-making.
2. Provide training, workshops, and facilitate seminars on business development issues with emphasis on marketing and relationship building.

3. Provide specialized business training for selected input dealers and project staff through other USAID implementing partners.
4. Assist dealers in developing investment plans for marketing of new products and improving the existing marketing channels.
5. Coordinate international and regional trading missions to establish relationships with input suppliers.
6. Provide dealers with general and specific information about policies and events in agricultural and associated sectors.

Market price information on agri-inputs were collected and disseminated to all 72 AAIDA members. This culminated in dealers organizing smaller informal groups to purchase fertilizer using economies of scale.

Three dealers (EMA, AgroKimya, Firdouzi) participated at the Guba Agricultural Fair and received support from the AMDA project. About 10,000 people visited the fair. Interested visitors were given technical information (leaflets, brochures, posters) on various topics. The Minister of Agriculture, Mr. Irshad Aliyev, and the Israeli Ambassador, Mr. Eiten An'eh as well as the Head of Guba Executive Power, Mr. Mehman Ibrahimov, showed great interest in the displayed drip irrigation equipment. IFDC invited all three for individual discussion in regards to the promotion of drip irrigation technology.

Discussions were held with Abdul Abdullayev, Director of the EMA Company, to prepare a series of training courses on disease control in crops during the 2003 autumn season. In previous training units only dealers attended such courses. In future trainings one dealer is obliged to invite up to 30 of his most progressive farmer clients. The training will be held in the dealers' shop or a nearby meeting place. Whereas the dealer is responsible for organizing the training and inviting his clients, AMDA will provide the training and selected logistical assistance. This will increase motivation and increase responsibility of such trainings onto the dealers.

In collaboration with CDC, a USAID partner project for Business Development, four trainings for business plan writing were conducted (Guba, Masalli, Ganja, Sheki). This enabled

CDC to do on-the-job training with their local partners. In total 60 Agri-input dealers learned the basics of a business plan and record keeping for either internal control or applying for credit.

In September AgroKimya and one project staff participated at the International Fertilizer Association (IFA) organized Fertilizer Production Conference in St Petersburg, Russia. Valuable contacts were established with Russian fertilizer manufactures, which resulted in the import of new types of fertilizer such, as muriate of potash (MOP), diammonium phosphate (DAP), and single superphosphate (SSP).

Credit and Marketing Facilitation

The indicators for work plan year two are:

1. Continue to foster relationships between agri-input dealers and credit organizations and monitor development of credit products and availability.
2. Advise dealers on credit and financing of investments.
3. Assist individual dealers in preparing credit applications.
4. Monitor credit repayments of dealers to credit organizations.
5. Encourage financing of selected farm and processing equipment for farmers/dealers to improve efficiency of production, processing, and marketing operations.

Discussion with World Learning resulted in approval of a contract (value \$27,000) with Adalet Mekhmetov on developing a vegetable garden at the orphanage in Lenkeran. AMDA's role is limited to supervision of the implementation and providing technical training programs.

Repeated discussions with CredAgro (ACDI/VOCA supported) took place regarding information flow of credits granted to agri-input dealers. CredAgro is reluctant to release such data pointing to the confidential character of their business. Three dealers repaid their credit to CredAgro (total repayment: \$30,000). In addition, three dealers provided banks with a business plan requesting for credits.

One AAIDA member in Khachmaz requested and received assistance for rescheduling of a World Bank credit. Apparently, the credit officers did not calculate the interest correctly. Discussions with the credit organization resulted in correcting the payments.

Dealers spent \$34,350 for construction of shops and warehouses. Investment for one flour mill and one cheese processing facility amounted to \$55,000. Three dealers received credits amounting to \$35,000.

A presentation on Data Communication and Data Analysis was held for AMDA staff.

A contract was signed with SIGMA company to conduct a survey on fresh apple exports from Azerbaijan to Russia. Interviews are currently being held with apple growers, exporters, intermediaries, truck drivers, customs offices, respective municipalities (issuing documents and permitting exports), and phytosanitary control offices. Customs offices at both levels (Baku and border stations) refused all collaboration and cooperation. The same applies for intermediaries and some main exporters. All of the aforementioned groups are very active in receiving unofficial fees of up to \$2,000 for a 20 ton truck to cross the border. Details of the survey will be presented in the next reporting period.

Negotiations with 15 dealers were held to obtain credit for greenhouse operations (400 m²). In the beginning all dealers were enthusiastic, however, at the end only one dealer, Firous from Tovus, qualified for the credit.

AMDA project staff Oleg Shevtsov accompanied Mamed Mamedov, Director of AgroKimya, to participate at the IFA conference in St Petersburg on fertilizer production. Mr. Mamedov met representatives from various manufacturers such as Kazphoshate, Uralkaly and Eurochem. Mr. Mamedov purchased different types of fertilizer such as monoammonium phosphate (MAP), MOP, and nitrogen, phosphate, kalium (NPK) to introduce on the Azerbaijani market. During the last 12 months IFDC has introduced 5 different types of fertilizers. Farmers have responded well to the purchase of triple superphosphate (TSP) and sulfate of potash (SOP).

Technical Training, Transfer, and Private Sector Extension Services

The indicators for work plan year two are:

1. Use Technical Training Center (TTC) to introduce and promote new agronomic techniques and recommended best farmers' practice.

2. Publish and disseminate fertilizer, seed and crop protection product (CPP) recommendations to dealers and their farmer clients.
3. Assist dealers to prepare marketing plans for the introduction of new products to their clients.
4. Demonstrate to dealers the economic, environmental and safety benefits resulting from best farming practices with special emphasis on CPP safety in storage, handling, and field application.
5. Collaborate with other donors and implementing partners on issues concerning utilization of appropriate agri-inputs.
6. Propagate private sector extension concepts and techniques to dealers.
7. Participation at Workshop of Extension Methodologies for East European Countries in Hungary.

Media—Mrs. Kenul Ismyilova joined the AMDA project holding the position of Media Officer. She is responsible for preparing and disseminating input/output price information, association newsletter, TV-broadcasting, relationship building with media and agriculture related projects in Azerbaijan.

Mrs. Kenul Ismayilova and Mrs. Nazakat Asadova developed a 20-minute TV documentary about the different types of fertilizers and their application in crops. The documentary will be repeatedly broadcast during September and October on five TV-stations. The total number of viewers is estimated to be two million. Impacts of such TV-broadcasts will be available in December of 2003.

Three articles were published in different newspapers on AMDA project activities and the agri-input dealers association AAIDA.

In July, 3,950 technical publications on various topics were reprinted and disseminated through dealers to farmers.

The average circulation of the Agricultural Commodity Market Information Report has reached 2,000 readers (hard copies/electronic distribution).

In total 150 copies of the “Guide to Fertilizer Products for Traders” were printed and distributed to dealers, agriculture universities and interested public institutions.

Open Field Days—One potato open field day and two wheat open field days were conducted in July with 189 dealers and farmers attending.

Greenhouse—During September one greenhouse (surface 400 m²) was set up in Tovus District with AAIDA member Firous. The greenhouse is constructed with local building material valued at \$2,000 (paid by the dealer in cash) and a credit amounting to \$5,300 for imported material from Israel. Planting of cucumbers will follow in October.

Training—Collaboration with the Israeli Embassy resulted in the importation of 10 drip irrigation units and one greenhouse from Israel. In addition, 5 project collaborators attended training courses free of charge: 3 dealers participated at the 2 weeks Mashav irrigation training course; 1 dealer attended the International AgricFair in Tel Aviv and one policy maker participated at the Agri-Business Conference in Tel Aviv.

Moreover, the Israeli Embassy offered Mashav training courses to AAIDA members either on a mobile base in Azerbaijan or by attending courses in Israel. Details of the training courses are presently being screened based on suitability.

Jim Stanelle conducted three mobile training units on wheat seed quality and certification. The training was well received by dealers as most wheat growers keep grains from the harvest as seeds for the next planting season. Respective recommendations developed should increase wheat production for the 2003-04 season.

Field Demonstrations, Gross Margins and Farmers’ Adoption Rates—The results of the wheat and potato demonstrations have been analyzed and respective reports written on each. Both technical reports are available on request from the project. Gross margins in wheat production differ significantly according to fertilizer application and farm management. The range is between traditional common practices at \$89 to improved farm management at \$522.

And in potato the gross margin ranges from traditional practice at \$1,115 to improved farm management at \$3,703.

Although economic differences are clearly visible farmers are not immediately adopting the newly introduced practices. There are various reasons for this that tend to vary from crop to crop. Two possible reasons include: household security versus market-oriented production and marketing related issues. In wheat production the small farm structure is one limiting factor. The majority of Azerbaijani farmers produce wheat only for home consumption. Marketable surplus is generally very small and of low quality which does not attract millers to purchase smaller lots. Therefore, the concept of growing wheat is very closely related to covering the annual household need for flour. Additional expenses for achieving higher yields do not fit into the risk adverse socio-economic behavior of such farm families. The underpinning consideration is that household security has a paramount interest over economic opportunities (agriculture is highly dependent on external factors such as weather, prices, vicinity to markets, information, etc).

Only larger farm units (5 ha and above) that have established contacts with millers grow wheat as a tradable commodity. Even these larger farms have enormous liquidity problems in purchasing quality inputs. This results in the following strategy: low inputs produce low yields (average Azerbaijan: 2.4 mt/ha; Germany: 6.9 mt/ha). Adoption rate of farmers for improved farm management in wheat production is considered to be very slow, as reliable marketing relationships have to be developed simultaneously. Public support for wheat growers is not defined and even counteracted as it has been decided to import wheat from neighboring countries excluding value-added tax (VAT) payments from October 1, 2003 to October 1, 2004. However, Azerbaijani farmers are required to pay VAT on every input that is purchased.

Potato is the next most important crop for household consumption. It is a very profitable cash crop for many farm families especially in southern and western regions around Jalilabad and Tovus. However, constraints are (1) a low liquidity for purchasing quality inputs, (2) remote markets, (3) inadequate standardized quality production including sorting, grading, packaging, etc, (4) no economies of scale (no organized farmers' producer groups), (5) missing rural marketing infrastructure, (6) lack of information on output markets, etc.

Nevertheless, farmers' adoption rates in improved management practices for potatoes are much higher as compared to wheat. Two major reasons are consumer demand and the high returns on land and labor (see gross margin). The introduction of imported German high yielding seed potato varieties initiated by IFDC produced a high demand for such seeds. Major problems are the granting of respective import licenses and the high capital demands for such imports (20 tons of seed potatoes from Germany to Azerbaijan requires about \$16,000 including transport). Through IFDC demonstrations and training on improved agronomic practices the productivity increased in the southern region on average by 14% and for AAIDA members up to 50% (similar figures are recorded in the western regions).

The average productivity of 18.5 mt/ha in Jalilabad regions is 80% higher as compared to the national average of 10.4 mt/ha (see appendix 5). The reasons are threefold: the good climatic conditions, willingness of farmers to adopt new agronomic practices and sound technical support by the IFDC project.

There is an urgent need for the Ministry of Agriculture to develop and implement improved regulations for importing seeds. Furthermore, to avoid decreases in farm gate prices it is of utmost importance to address marketing issues such as warehousing, collection points (sorting, grading, packaging, etc.), market information exchange, relationship building between producers and traders, and to train specialized agriculture extension workers. Last but not least, rural banks (predominantly donor supported financing organizations) should understand their role as supporting the agriculture sector by taking certain risks and not stipulate credit conditions, which exclude the majority of farm families.

Marketing, provision of credits, and developing agricultural policies to ease access of imports are issues that can be addressed through AAIDA as it gathers strength as an advocacy and trade organization. However, these issues will need additional support from donor agencies and other donor-funded projects.

Association Building

The indicators for work plan year two are:

1. Ratify the articles and by-laws of the association with the membership base.
2. Association approval for the appointment of an Executive Director (project staff).
3. Train Executive Council Members and association members on their appropriate roles in the association.
4. Conduct 8 regional meetings and 1 national association meeting.
5. Provide assistance in developing a Standard Operating Procedures Manual.
6. Establish committees for finance, membership, quality standards, technology, and advocacy.
7. Develop a business plan for the association.
8. Establish fees for services to generate non-dues income.
9. Investigate potential sources of future commercial income for the association.
10. Establish cluster relationships within the membership both upstream and downstream.
11. Conduct Trade missions to Turkey, Georgia, Russia and Germany.

The distribution of storage containers being used by dealers came to an end. In total 63 dealers received a container.

Follow-up visits were made with the Ministry of Justice on the registration of the association. The documents are under review. The Ministry of Agriculture wrote a supporting letter for the association to speed up the registration process at the Ministry of Justice.

By the end of September, 72 dealers had paid their AAIDA membership fee amounting to \$2,464. For various services rendered, the association had collected \$2,864. This amounts to \$5,328 in the AAIDA association's account.

In September, a 2-day meeting on discussing and ratifying the Association Standard Operating Procedures Manual was conducted. Participants included the Executive Council Members and Regional Vice Presidents. The Standard Manual was approved and will be introduced and explained to members during the next series of regional meetings.

In addition, it was decided during this meeting to further the promotion of AAIDA activities through media in order to continue improving the relationship building to farmers. Media publications will cover regional exchange visits, and announcements in regards to improved agronomic practices.

Moreover, relationship building among individual members are to be improved through collaboration in e.g. purchasing inputs under one common order from importers using economies of scale. Discussions already took place with EMA Company to provide discounts on pesticide prices for AAIDA members.

Farid Firidunov, Director of AAIDA, started negotiations with EMA and AgroKimya import companies on discounts for AAIDA members when purchasing CPPs and fertilizers. Both companies indicated interest and agreed. A contract is being prepared to determine the conditions. Moreover, a system in the process of being developed for identification of AAIDA members when contacting EMA and AgroKimya sales shops.

Leveraged Support and Cooperation

- The AMDA project collaborated closely with the ACDI/VOCA supported CredAgro financing organization to increase availability of credits to dealers.
- AMDA collaborates with USAID partner projects on association building and publishing the Agricultural Commodity Price Bulletin.
- AMDA is continuously developing international contacts and fostering relations with the private sector for seed and fertilizer supplies (EUROPLANT, SEMINIS, Jecot, Rustavi Chemical Plant, Phosagro, Itera, Uralkaly, etc.).

AMDA Activities by Quarter
July–September 2003

QUARTERLY ACTIVITIES	ACCOMPLISHMENTS
I. Business Development	
Training on Writing a Business Plan	4 trainings with 60 participants;
Introduction of new fertilizers	NPK, MOP, MAP
International Price Information Dissemination	Published monthly;
Study Tour/Trade Mission	1 trade mission to Russia; 1 importer
II. Credit and Finance	
Credits granted	3 dealers received in total \$35,000;
Credits repaid	3 dealers repaid their credit; total: \$30,000
Introduction of new bank to dealers	9 dealers participated
Exporting Apples to Russia	1 training conducted; survey initiated
III. Association Building	
Executive Council and Regional Vice President Training on Standard Operational Procedure Manual	11 AAIDA members participated
IV. Technology Transfer and Private Sector Extension	
Seminars	Wheat Seed Quality and Certification: 3 trainings with 45 dealers attending;
Demonstrations and trials	1 greenhouse set up in Tovus region; 1 open field day on apple production, 25 people 1 open field day on potato production, Tovus, 44 people 1 open field day on wheat production, Sheki, 108 people; 1 open field day on wheat production, Guba, 37 people
Media	1 TV-spot for fertilizer use prepared and broadcasted; 2,750 copies printed; 3 articles published in newspapers
Number of farmers attending open training	-

Appendix 1. Training Seminars Held with Agri-Input Dealers, July–September 2003

Title	Venue/Date	No. of Participants
Business Plan Writing	Guba, 19.08.03	10 dealers
"	Masalli, 22.08.03	13 dealers
"	Ganja, 04.09.03	18 dealers
"	Sheki, 05.09.03	19 dealers
Fertilizer Application in Potatoes	Tovus, 25.07.03	44 dealers + farmers
Open Field Day Wheat Production	Guba, 24.07.03	37 dealers + farmers
Open Field Day Wheat Production	Ismailli, 22.07.03	108 dealers + farmers
Bank Respublika Divichi, Credit Service Presentation	Guba, 08.08.03	9 dealers
Apple Export Survey	Guba, 26.08.03	8 dealers
Apple Harvest	Khachmaz, 19.09.03	25 dealers + farmers
Wheat Seed Quality and Certification	Ismailli, 08.09.03	8 dealers
"	Sheki, 09.09.03	11 dealers
"	Ganja, 10.09.03	16 dealers
Total: 7 topics and 13 training units		326 participants

Appendix 2.
Cost Sharing Contribution
January–September 2003

Value of Cost Sharing in U.S. Dollars, 2003

No	Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1	Association Meetings/Member Visits	1,820	780	2,005	3,160	3,040	3,140			660				14,605
2	Field Days / Advisory Visits	992		1,790	1,356	1,763	34,549			705				41,155
3	Seminar / Business Counseling				810	4,000	1,200		800	740				7,550
4	International Supplier presentation/supplies			27,000						2,500				29,500
5	Transportation	2,000		24,000		200								26,200
6	Trade Missions / Study Tours			1,090		400	800		400	400				3,090
7	Media Coverage	150	300	200	250	50	50	250		1,600				2,850
8	Credit Obtained					126,100			35,000					161,100
9	Grants Obtained	10,000				1,000		6,000	2,000					19,000
10	Investment by Dealers	92,130						89,250						181,380
11	Membership Registration Dues					304		1,470		690				2,464
12	Association Service Fees									2,864				2,864
	Total US \$ / Month	107,092	1,080	56,085	5,576	136,857	39,739	96,970	38,200	10,159				491,758
	Grand Total													
	Accumulated total from February 2002 to last month reported: \$615,967													

Appendix 3. List of Publications, July–September 2003

No.	Publication	Date of Publication	Copies
Leaflets			
1	Potato Diseases	July 2003	500
2	Control of Potato Pests	July 2003	500
3	Fertilizer Use	July 2003	500
Brochures			
1	Effective Fertilizer Use	July 2003	500
2	Potato Technology	July 2003	500
3	Potato Pests and Diseases	July 2003	500
4	Apple Production	September 2003	500
Posters			
1	Wheat Technology	July 2003	50
2	Potato Technology	July 2003	50
3	Crop Rotation	July 2003	200
Report			
1	Fertilizer Guide for Traders	September 2003	150
Total:			3,950

Appendix 4. Contact List

USAID Partners	
Jeffrey Lee	USAID Office Baku, Deputy Country Director
John Brannaman	USAID Office Baku, Agric Development Officer
Rena Effendi	USAID Office Baku, CTO
David C. Neubert	Project Evaluator, USAID Baku
William Albanos	Project Evaluator, USAID Baku
Beverly Hoover	CHF, Country Director
Patrick Sommerville	CHF, Management Associate
Samira Heydarova	World Learning, Program Officer
Other Donors	
Dan Bliss	BP, btc, Community Relations Manager
Marcel Schwickert	GTZ, Head of Office
Dr. R. Schuette	GTZ, Agricultural Policy Advisor
Dr. Christoph Weber	GTZ, Agricultural Development in Caucasus Countries
Eitan Na'eh	Ambassador of Israel in Azerbaijan
NGO and Local Organizations	
Fuad Karimov	Advisor of Secretariat for Competitive Grants and Knowledge Transfer System
Dr. Akif Mustafayev	Director of Rural Policy Unit, Agency for Support to the Development of the Agricultural Private Sector
Mamed J. Mamedov	AgroKimya, President of Company
Jukevich Vasiley Stepanovich	Jecot, Goran-Cotton Ltd.
Arif Jahangirov	Ganja Business Group, Deputy Director
Rasim Ramazanov	Sigma, Research Center for Development, General Director
Shahverdi O. Ahadov	Agricultural-Industrial Policy Division, Ministry of Economic Development
Naig Mammadhasanov	Tovus-Baltiyya, General Director
Government Officials	
Irshad N. Aliyev	Ministry of Agriculture, Minister
Eldar A. Gahramanov	Deputy Chairman of the Commission on Agrarian Policy of the National Assembly of Azerbaijan Republic
Sadigov Gurban	Cabinet of Minister, Acting Chief of Department for Problems of Refugees, IDPs and Migration
Maharramov Mahammad	Chief Referent of Department for Problems of Refugees and IDPs, Migration and Work with International Humanitarian Organizations
Others	
Thomas Bottner	Export Manager, EUROPLANT
Wahid Jemai	JECOT S.A., International Trade of Raw Cotton and other Cotton Products
Mike Murray	University of California, Cooperative Extension, Vegetable Advisor
Dr. John Richardson	North Carolina Cooperative Extension Service, Extension Program Leader
George Young	Auburn University, Extension Economist
Mohamed Samy	University of Illinois, Department of Agricultural and Consumer Economics
Prof. Dr. Erdogan Oktay	Ege University, Turkey, Department of Agricultural Economics

Appendix 5. Higher Productivity and Quality in Potato Production in Jalilabad Region

In Azerbaijan the land used for potato production covers 55,000 ha or 3.40% of the arable land. The respective acreage for the Jalilabad region amounts to 2,400 ha or 4.4% of the region's arable land. The average yield in Jalilabad is 18.5 mt/ha compared to the national average of 10.4 mt/ha. In Goytepe village in the Jalilabad region, the USAID financed and IFDC implemented project "Agri-Input Market Development in Azerbaijan" (AMDA) conducted a balanced fertilizer application and drip irrigation potato field demonstration during March-June 2003.

Since March 2002, IFDC has been actively promoting potato production in the southern region of Azerbaijan. The aim is to increase the productivity and quality of production. Furthermore, variety demonstrations have been implemented to identify early maturing varieties that will receive a premium in the output markets. This is due to the fact that the climatic conditions allow the Jalilabad region to be the supplier of the first fresh potatoes after the winter season.

IFDC conducted a number of field demonstrations to this effect, showing the superiority of new seeds and fertilizers as well as environment friendly application of CPPs to control diseases. In addition, agri-input dealers and farmers participated at training courses on improved farm management and general agronomic practices. So far, more than 500 dealers/farmers have attended these training courses. Farmers purchasing seeds at the agri-input dealers' shops were also given technical leaflets and brochures on agronomic techniques such as soil preparation, pre-sprouting, planting, fertilization, disease control, harvesting, etc. In total, 5,000 IFDC potato related extension materials have been distributed by dealers to farmers.

The results of these efforts were an increased productivity of 80% above the national average: 18.5 mt/ha vis-à-vis 10.4 mt/ha. Many farmers are now asking IFDC supported agri-input dealers for advice on potato production. This has resulted in higher sales turnover for agri-inputs supplied by these dealers.

Through the IFDC extension program aimed at supporting private agricultural input dealers and farmers, Mr. Agagul Huseynov's potato field was selected for demonstrating gravity drip irrigation and balanced fertilizer application. The field demonstration included Triple Super Phosphate (TSP) to document the differences in production compared to fields where no phosphate fertilizer was applied. In addition, a gravity drip irrigation kit was installed to show the difference between the "new" method of irrigation compared to the common practice of flood irrigation.

Although weather conditions were not optimal (heavy rains and snow during March–April, the total production output was 2,430 kg for the 434 m² potato demonstration plot or 56 mt/ha. The yields from fields without drip irrigation were 35 mt/ha, while yields on fields without TSP and drip irrigation were 20 mt/ha (only Ammonium Nitrate used). Additionally, a significant difference could be seen in the shape and size of tubers and improved soil structure.

Potatoes from the demonstration plot were bigger and more uniform and received a 20% premium when compared with potatoes harvested from neighboring plots belonging to the same dealer.

The additional expenses for the purchase of TSP for the demonstration (compared to the traditional method) amounts to an increase of \$40/ha. However, the difference in gross margin resulted in an increase of \$2,439/ha. This clearly documents the benefits of using balanced fertilizers and applying the appropriate amount of water needed for plant growth, resulting in a quality above common Azeri standards.

Mr. Huseynov told attendees of the open field day that by applying TSP before planting and installing the gravity drip irrigation many of his neighbors did not believe he could achieve the yield increases and quality improvements. They all believe now!

Mr. Huseynov, who is the Regional Vice President of the Ag-Input Dealers Association supported by IFDC/AMDA, was very satisfied with the achieved results and many of his neighboring potato growers and agricultural input dealers participating at the IFDC organized open field day are ready to apply the same recommendations in the 2004 spring season. He was

explaining to participants that IFDC staff taught him how and when to use irrigation and balanced fertilizer application on his potato field to increase productivity.

Mr. Huseynov is an example of a new generation of farm entrepreneurs in Azerbaijan who are willing to take calculated financial risks, which are necessary for the development of a demand driven market economy. During the October 2002-September 2003 period Mr. Huseynov sold 30 mt of TSP to his clients cultivating wheat and potatoes. For the upcoming 2003-2004 season he is very optimistic that he will be able to sell larger amounts of TSP due to the positive results that his customers received from using this fertilizer.

Appendix 6. High Yielding Varieties and Fertilizer Application Increased Wheat Production in Ismailli

In Azerbaijan wheat production covers an area of 570,000 ha or 35.6 % of the arable land. Wheat is important for Azerbaijan as it is a staple food for the rural population. The respective acreage for the Ismailli region amounts to 16.000 ha (58% of the arable land in Ismailli region). The tendency is to expand the area for wheat production. The average yield in Ismailli compares to the national average at 2-2.4 mt/ha. This is considered to be low based on international comparisons (Germany: 6.9 mt/ha, Poland: 3.83 mt/ha, Uzbekistan: 3.23 mt/ha, Croatia: 4.22 mt/ha, FAO data 2002). The climate and soil conditions allow for potential higher yields, increased productivity and higher gross margins. In Talistan village, the USAID financed and IFDC implemented project “Agri-Input Market Development in Azerbaijan” (AMDA) conducted a wheat variety screening and balanced fertilizer application field demonstration during October 2002-July 2003.

Since March 2002 IFDC has been actively promoting farmers’ best practices in wheat production in the Ismailli-Sheki region. The aim is to increase productivity and introduce improved agronomic practices. Variety demonstrations have been implemented to identify the best varieties resulting in Ismailli farmers’ become more competitive and maintaining their role as primary wheat suppliers for the country.

IFDC conducted a number of field demonstrations to prove the superiority of new seed varieties and fertilizers as well as environment friendly application of CPPs to control diseases. In addition, agri-input dealers and farmers participated in training courses on improved farm management and agronomic practices. So far more than 600 dealers/farmers have attended these training courses in the region. Farmers purchasing seeds at the agri-input dealers’ shops were given technical leaflets and brochures on agronomic techniques such as soil testing, soil preparation, determination of seed rates, wheat varieties in Azerbaijan, planting, fertilization, disease control, etc. In total 7,000 IFDC wheat related publications have been disseminated by dealers to farmers.

Through the IFDC extension program aimed at supporting private agricultural input dealers and farmers, the Agro Business Center of Ismailli (ABCI) wheat field was selected to implement a variety screening and balanced fertilizer application demonstration. ABCI is a member of the Agri-Input Association supported by the IFDC project and provides agricultural services to farmers. The 1.0 ha field demonstration included testing of 7 wheat varieties to identify which ones would be the most suitable for the region. In addition, Triple Super Phosphate (TSP) and Potassium Sulphate were used in order to document the differences in production when these “new” fertilizers were applied.

Although weather conditions were not optimal (heavy rains and snowing during winter and spring) the total output was 5.15 mt/ha. The yield calculated using N:P:K was 8.83 mt/ha compared with 6.4 mt/ha using N:P and 3.2 mt/ha using AN only.

The additional expenses for TSP and Potash fertilizer purchased for the demonstration as compared to the traditional method (AN only) amounts to \$75/ha. However, the difference in the gross margin calculation resulted in an increase of \$671/ha. This clearly documents the increased productivity by using high yielding varieties combined with a balanced fertilizer application.

IFDC organized an open field day and ABCI specialists explained to participants their satisfaction with the doubling of their yield. The higher productivity is a combined result of planting high yielding wheat varieties purchased by IFDC/AMDA at the research stations in Barda/Tartar and Sheki, and the use of balanced fertilization application rates such as additional TSP and Potash to the common practice of using AN only.

During the field day, agri-input dealers and farmers expressed their gratitude to IFDC/AMDA by demonstrating how to increase productivity in wheat production. ABCI recorded 3,663 farmers visiting the demonstration site and supplied farmers with technical brochures and leaflets explaining the new practice. Farmers have ordered N:P:K and N:P fertilizers from dealers for the upcoming 2003-04 season. This is expected to result in higher sales turnover for the dealers and increased output for farmers.