



**Ukraine
Agricultural
Marketing Project**



USAID Cooperative Agreement 121-A-00-03-00002-00

FINAL REPORT

March 2003 – March 2007

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ABSTRACT

Post-Soviet Union, newly formed, small- and medium-sized private farmers of Ukraine have fended without direct support from the Government of Ukraine (GOU) and have experienced serious economic challenges. To assist, USAID-Ukraine contracted with Land O'Lakes, Inc. to implement the Agricultural Marketing Project (AMP). The Mission of the AMP was to stimulate increased rural incomes and employment, enable small/medium private family farmers to identify and meet market needs profitably, pursue joint marketing efforts, and add value to products. In addition to target farmers, wholesalers, processors, and retailers were important client groups. To accomplish the mission and link farmers to markets, four teams worked as implementers: Commercial Farming, Market Development, Producer Association/Organization, and Market Information System (MIS). In addition, a small grants program was utilized. These teams, through practical initiatives, actions and grants, worked to build trust among target participants of the "agribusiness produce commodity system." Project seminars, field days, workshops and working meetings were visited in total by over 13,900 people (farmers and/or market firm persons participated); project specialists rendered over 19,000 consultations and answered over 20,300 market requests. Through these and other efforts, AMP directly helped farmers realize sales revenues of \$14.8 million and added about 6,000 new seasonal and permanent jobs. In addition, \$29 million in sales (from revenue gains and cost savings) were indicated as gained to date because of the project's market information system.

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I. PROJECT OVERVIEW

Dates of project:	March 26, 2003 – March 25, 2007
Total estimated federal funding:	\$7,500,000
Total estimated matching funding:	\$830,246
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Introduction and Problem Statement

In spite of successfully opening its markets, Ukrainian agriculture continues in transition. Large, former collectives have been transformed into joint stock companies, limited liability companies and other legal entities, and have, though not ideally organized, helped support the nation's impressive eight percent annual gain in GDP over the past few years. Largely as a result, Ukraine has been able to begin to reorient its basic production system so that its agricultural exports now compete on a global scale in countries well beyond its traditional markets in Russia and the NIS region. However, the small farm private sector (five to fifty hectares) and traditional household plot owners (less than five hectares) still account for a significant share of basic horticulture crops for home consumption.

These small, private, increasingly commercial farmers are growing in importance. Many of these farmers obtained land via a land distribution program authorized by the GOU in 1991, or from collective farms when land of the former collectives was distributed to members of former collective farms. These land recipients privatized the land, and became "private farmers" and today they tend to dominate many green markets.

Increasingly, these producers have begun to organize into associations and groups, but the process has been slow due to negative memories of the former collective cooperative system, and a cooperative law not regulated properly by tax authorities. However, the more forward-thinking farmers are seeking ways to better establish an effective marketing chain from producer to consumer, especially to better serve rapidly emerging supermarket chains that are eager to find reliable sources of high-quality fresh and processed food products to substitute imported product.

Many of these highly market-oriented private producers (who have fended on their own after receiving land) have been unable to fully meet market needs, and are vulnerable or face serious economic challenges which result from:

- Lack of an established system by the GOU to support new farming practices by private farmers;
- Lack of information about markets, prices, and buyers, causing farmers to face sharp booms and busts;
- Not properly timing production to meet market needs, frequently missing important early and late sales opportunities;
- Limited competitive market opportunities in their local regions that force them to rely upon a few small wholesalers, or middlemen;
- Having little experience with cooperative efforts and a deep mistrust (because of former collective experiences) of efforts to organize into farmer associations or cooperatives;
- A lack of confidence in contracts to establish long-term relationships with customers and a legal system that makes it difficult to enforce such contracts;
- Few competitive offers throughout the supply chain and an underdeveloped market infrastructure (such as no extension advisory assistance to farmers; and weak storage, transportation, and handling facilities);
- A lack of effectively-organized wholesale markets (limited to only three near large cities);
- Limited access to credit and insurance services; and
- A lack of land markets that provide clear value for the owned land asset.

In Ukraine, the Agricultural Marketing Project (AMP), implemented by Land O'Lakes, Inc. (LOL) developed an approach that works to help these farmers meet some of these challenges/barriers and provide market linkages for them directly and indirectly to processors, wholesalers, and retail market chains (groceries or supermarkets).

The Mission and Goals

The AMP in Ukraine was a project conceived, developed and supported by United States Agency for International Development (USAID) with implementation assistance provided by LOL. The primary mission of the AMP was:

*To stimulate **increased rural incomes and employment** by enabling small- and medium-scale family farmers to identify and **meet market needs profitably** through **enhancing quality and production efficiency, pursuing joint marketing efforts, and adding increased value** to their products*

The goals of the project were:

1. To provide the project's farmer clients with professional business training, technical assistance and high-quality market information services enabling them to increase their profits by producing and supplying what markets demand.
2. To help wholesale, retail, processing and food service companies improve their business with farmers so they can increase their supply of high-quality raw material and fresh produce and reduce their purchasing costs by establishing mutually profitable and long-term partnerships with farmers.
3. To assist farmer clients in developing profitable joint-marketing opportunities through associations, marketing cooperatives and other farmer business groups/alliances.
4. To develop affordable market information services that help market participants identify market demand and the need for their current and potential products; and, discover prices, new markets and marketing channels so they can plan and make better-informed business decisions.

The Target Group

The target group included primarily emerging small- and medium-sized increasingly commercial private farmers with five to fifty hectares devoted to fruits and vegetables (F&V), many of whom broke off from former collective farms several years ago and have struggled to develop under conditions of minimal support infrastructure and weak market linkages. In addition, wholesalers, processors, and retailers were considered important client groups. Proper trust based relationships with these groups is necessary if successful help is to be provided to farmers in building market linkages.

II. SUMMARY OF PROJECT OUTPUT INDICATORS

TABLE 1. SUMMARY OF PROJECT OUTPUT INDICATORS

Data as of 25-Mar-2007

Performance Indicator	Indicator Definition & Unit of Measure	Disaggregation	PY 2003	PY 2004	PY 2005	PY 2006	TOTAL	
6.1. Number of farms assisted by project activities (accumulated by the end of each PY and project total)	Individual private farm and private rural (household) producers or rural entrepreneurs	Oblast	Odesa	51	96	110	111	111
			AR Crimea	71	131	132	141	141
			Lviv	63	104	128	135	135
			Zakarpattya	70	86	102	106	106
			Cherkasy	63	110	133	147	147
			Poltava	101	133	150	160	160
		Type	Private Farm	310	456	511	532	532
			Household	64	137	174	198	198
			Entrepreneur	45	67	70	70	70
		Total	419	660	755	800	800	
		incl. women producers	43	67	85	86	86	
6.2. Number of firms assisted by project activities (accumulated by the end of each PY and project total)	Individual retailer, wholesaler, foodservice or processor clients	Oblast	Odesa	9	11	16	17	17
			AR Crimea	18	29	19	20	20
			Lviv	11	13	15	15	15
			Zakarpattya	13	27	28	25	25
			Cherkasy	7	20	25	26	26
			Poltava	19	38	46	48	48
		Type	Processing	41	58	53	51	51
			Wholesale	13	29	40	42	42
			Retail	15	35	37	40	40
			Food Service	8	16	19	18	18
		Total	77	138	149	151	151	
6.3. Number of client associations or cooperatives created /assisted (accumulated by the end of each PY and project total)	Total number of producer associations and farmer coops strengthened/ created with project assistance	Oblast	Odesa	10	10	10	10	10
			AR Crimea	5	10	6	8	8
			Lviv	3	4	5	5	5
			Zakarpattya	3	6	7	8	8
			Cherkasy	3	3	4	4	4
			Poltava	5	8	7	7	7
		National	3	3	3	3	3	
		Type	Association	11	13	11	12	12
			Cooperative	9	17	20	21	21
			Other Group	12	14	11	12	12
			Total	32	44	42	45	45
6.4. Number of training and TA events	Total number of formal trainings and technical assistance events organized by the project	Oblast	Odesa	6	48	169	200	423
			AR Crimea	31	59	43	49	182
			Lviv	25	47	60	108	240
			Zakarpattya	26	52	247	152	477
			Cherkasy	6	13	28	81	128
			Poltava	8	61	66	48	183
		Type	Seminar	21	70	97	47	235
			Round table	18	68	48	22	156
			Working Group	46	107	440	558	1,151
			Presentation	17	28	24	9	78
			Conference	0	7	4	2	13
Total	102	280	613	638	1,633			
6.5. Number of individuals trained	Total number of participants in formal trainings provided by the project	Oblast	Odesa	260	730	713	450	2,153
			AR Crimea	209	312	635	276	1,432
			Lviv	568	855	505	299	2,227
			Zakarpattya	374	974	1002	859	3,209
			Cherkasy	299	478	788	462	2,027
			Poltava	239	721	1204	692	2,856
		Type	Farmers	1,830	3,638	4,271	2,671	12,410
			Processing	67	194	221	124	606
			Wholesale	19	123	164	107	413
			Retail	27	108	191	133	459
			Food Service	6	7	0	3	16
Total	1,949	4,070	4,847	3,038	13,904			
including women participants	Type	Producers	139	428	882	555	2,004	
		Firms	29	90	182	87	388	
		Total	168	518	1,064	642	2,392	

FIGURE 1. AG MARKET LINKAGES

Working to Strengthen the Supply Chain

Better Quality. Larger Markets. Greater Returns

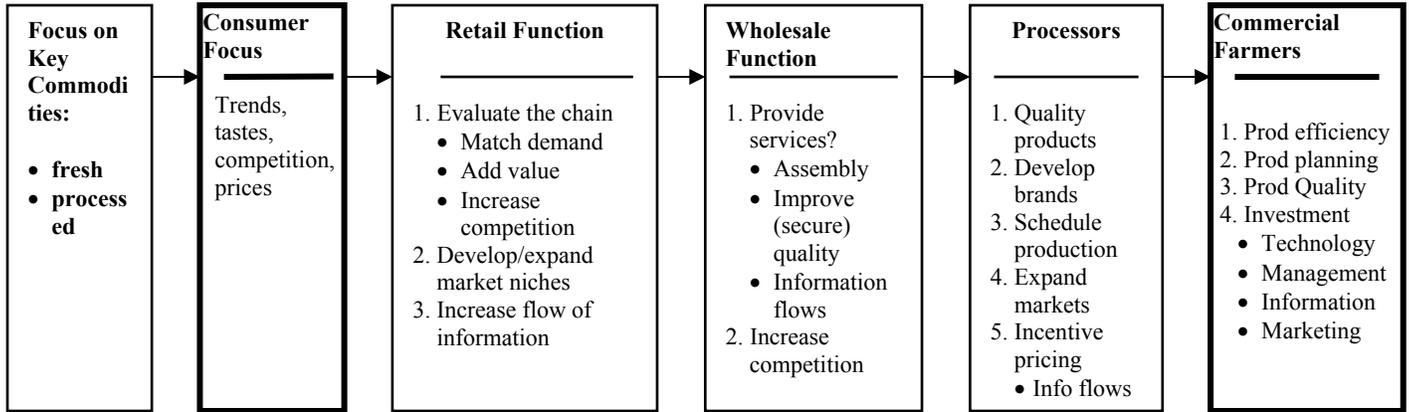
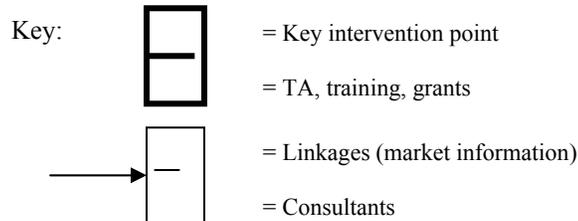
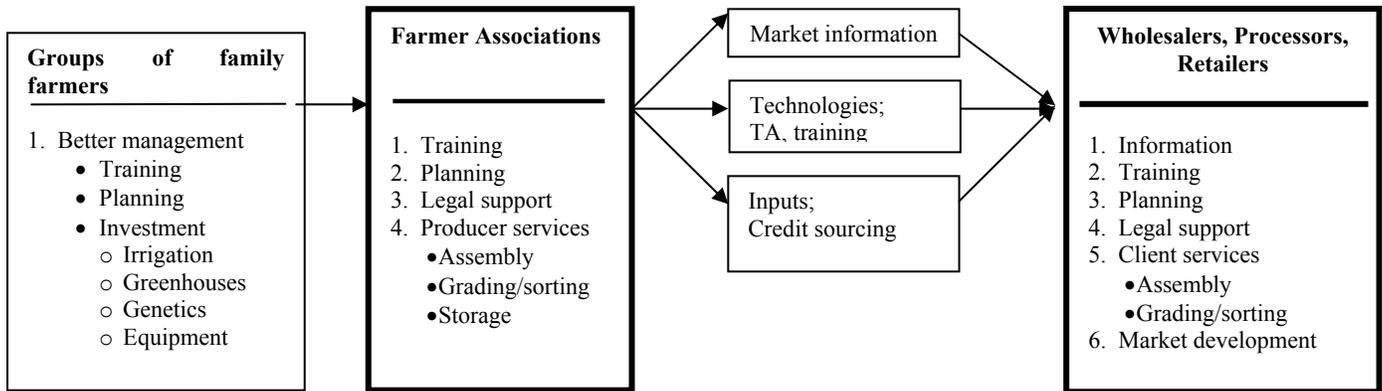


FIGURE 2. LINKING TECHNICAL ASSISTANCE/ TRAINING /GRANTS ACROSS THE SUPPLY CHAIN



III. DESCRIPTION OF PROJECT COMPONENTS

To accomplish the goals and mission of the project for the target client groups, the AMP worked to *link farmers to markets* through effective implementation of four basic components:

- Commercial Farming
- Market Development
- Producer Associations/Organizations, and
- Market Information System (MIS)

In addition, a small grants program was implemented. The linkages among supply chain participants are illustrated in Figure 1 on the previous page; shown in Figure 2 is an illustrative approach for linking technical assistance, training and the small grants program across the supply chain. Based on this supply chain linkages model, which illustrates the relationships between participants of the agribusiness system, the four components through which project initiatives and actions were delivered in a practical way were determined.

Description of Key Activities by Components

The **Commercial Farming Team** worked to ensure that farmers received technological support required to produce a high-quality diverse mix of F&V produce that could be delivered to the market in a timely, well-presented manner. Key specific actionable tasks of this team included:

- *Demo plot implementation* (open field or greenhouse) where new technologies could be shown to farmers during field day events. This activity was organized by the AMP in close cooperation with private sector input supply firms (seed companies, agricultural chemical firms, farm equipment manufacturers, etc.) who help provide resources (seeds, chemicals, drip irrigation systems, agri-fiber, appropriate scaled equipment, Post Harvest Handling (PHH) materials and equipment, etc.) for implementation of the demo plots. The AMP brought together farmers and ensured they saw and had explained the technologies used in the production of vegetables, fruits, and berries at the demo plots.
-
- *Seminars and workshops* were organized and held with farmers to explain what must be done from a production and field packing point of view to ensure that farmers understand what it takes to meet the demands of the buyers (wholesalers, processors, and retailers). The latest international agricultural experience was provided via materials and via assistance from STTA consultants (both foreign and national).
-
- *Pamphlet and documentation preparation and distribution* was carried out by the team for use at training events. The team collected information on modern technologies, evaluated it for practicality of use
-

with Ukrainian project farmers, and prepared technical materials and training manuals appropriate to client farmers. Also, results of the demo plot work observed by our client farmers was collected, analyzed, summarized and distributed. Finally, local and international marketing experience was shared, along with contact information for suppliers and produce buyers. The information developed was distributed through the AMP market information system and website, but special publications were also printed and distributed.

- The AMP developed and implemented a *Farm Business Model* to help client farmers make better management and planning decisions. This was a computer-based tool designed to analyze the structure of costs/returns and margins across farms, enterprises, and distribution channels; and, it allowed for comparing regional competitiveness of individual crops. It helped farmers to make production plans and to find out how they compared competitively with other farmers that produced the same crops. It helped farmers using it effectively obtain loans quickly from banks.

The **Market Development Team** worked to identify market opportunities for produce of farmers with wholesalers, processors, retailers, and/or institutional buyers, taking into consideration the development of transparent relations between producers and customers so that traceability concerns could be met. Key specific actionable tasks of this team included:

- *Implementation of supply chain management and product marketing and merchandising practices*, in conjunction with client marketing intermediaries/buyers (supermarkets, green groceries, wholesale markets), foodservice companies and processors (canneries, dehydrators, juice extractors, etc.) through establishing effective direct linkages with producers/producer groups either through individual consultations and/or organized, focused training events. The efforts here resulted in actual commercial deals between client farmers, wholesalers, processors, and retailers, and often resulted in supply contracts.



- *Seminars and workshops* in cooperation with those of the commercial farming team helped to familiarize client growers with the needs of wholesalers and processors regarding requirements of produce quality, contract terms and conditions, emerging trade practices, trends of the business, and other related issues that impact on strengthening the linkages between the farmers and the buyers of the F&V value chain.



- *Post Harvest Handling for farmers* was demonstrated in conjunction with commercial farming field days. The team developed contacts and good business relationships with the companies supplying equipment needed for advanced produce marketing and PHH practices (washing, sorting, grading, packing, cooling and storage). These



companies cooperated with the AMP to introduce pilot initiatives on the premises of selected AMP client growers. Farmers attending the field days were shown how to harvest, select, and pack product for distribution to wholesalers, processors, and retailers in the most appropriate ways.

- *Post Harvest Handling for market system participants* beyond the farm gate was demonstrated to show wholesalers and retailers handling fresh produce what they must do in the way of storage, transportation and handling within their operations to extend the shelf life of perishable fruits and vegetables (F&Vs). This was not only carried out by the AMP resident team but also by STTA consultants (local and international) who were specialists in selected aspects of the business and brought to Ukraine by the AMP.



- *Pamphlet and documentation preparation and distribution* was also carried out by this team. Some of the materials were prepared in conjunction with the commercial farming team, but this team also conducted marketing surveys (consumer preferences and behavior, business practices of market players, and supply chain analysis). The information learned from these surveys was analyzed and prepared into publications (specialized manuals, i.e., “Modern Packing Practices”) that were distributed at field days, seminars, workshops, and via the AMP market information system and website.

- *Highly-focused study tours* were organized for the AMP clients. The objective of the study tours was to select participants that are leaders in their region and in their business activities. These leaders were exposed to the latest technologies (production, transport, storage, etc.), marketing practices (direct sales, branded produce, private label sales, etc.), and produce business strategies. It was expected that these leaders would return from the tours and provide talks for, or exchange information with, other farmers or business colleagues in their region so that they could share ideas they had learned and which seemed appropriate for use in Ukraine. The AMP project offices ensured that this training exposure was realized.



The **Commercial Farming** and **Market Development** teams worked jointly to bridge the gap between farmers and buyers by introducing the target client groups (farmers, wholesalers, processors, and retailers) to best practices for PHH, product delivery, and logistical support. It was through this highly-integrated working relationship that practical business linkages were made between farmers and buyers. To make these relationships work, it was necessary for the AMP person working with farmers to work closely with the AMP person working with buyers. Through this relationship, what farmers have to offer and what buyers want to buy is well-known. The farmers and buyers were brought together and deals were struck. The effective glue in such relationships is integrity. Many business deals are built on trust; therefore, it was necessary for the AMP to ensure that trust was established and that commitments were honored so that trust can be maintained. When trust relationships between people are

built, effective linkages between farmers and participants in the market chain can be expanded.

The **Producer Association/Organization** team assisted target farmer groups to come together into cooperatives and/or associations that operate formally and informally to assemble quantities and varieties of produce in sufficient quantity to supply buyers and build farmer market power. Also, as the groups expanded, some became involved in adding value to their products. This team was also responsible for implementing the AMP small grants program. Many of these grants were focused on marketing improvements and value-added activities. Key specific actionable tasks of this team included:

- *Identifying and establishing farmer groups* was a primary focus of the team in the early stages, as it is necessary to bring farmers together to discuss common interests before you can build a business organization. In this activity, organizational meetings were held to discuss the reasons why it was beneficial to work together in groups and to explain the cooperative concept the AMP promotes and how it differs from the former collective farm approach. When the groups decided they wanted to work together, members were identified and the AMP lawyer explained the legal and organizational development aspects of establishing a farmer cooperative. The lawyer worked with the group to help them with charters and other necessary documentation required for registration.
- *Seminars and workshops to help build newly-registered farmer groups* were necessary to help them grow and survive as a business. This task involved holding seminars and workshops with newly-formed groups. At these events, the AMP's association/cooperative development team explained the organizational structure of agricultural cooperatives, how cooperatives are managed, roles and responsibilities of board members, and how to recruit and retain members. Also, to help farmer groups build their businesses, the AMP held seminars and workshops that covered such topics as: profitable cooperative business development; business/marketing planning in farmer cooperatives; developing marketing agreements with market firms; financial and accounting practices; and, other relevant topics that helped the newly formed groups build their businesses.
- *Sponsoring association and cooperative assistance programs* at local, regional, and national levels helped these organizations build their ties with farmers and improve representation for small- and medium-sized farmers with GOU agencies and organizations that impact on their lives in the rural community.
- *Reviewing and implementing small grants* that helped to introduce new technologies and practices at various stages of the supply chain. This team requested grant proposals, reviewed and selected the best ideas for implementation, and worked with potential recipients to be sure business plans associated with the grant proposals were viable. It was hoped that the grants would be for activities that would directly support the development of stronger linkages along the marketing chain. For example, if PHH was a

weak link in the system, a grant that helped demonstrate what must be done to improve PHH practices would be identified and implemented with a group in the market chain that wanted to improve its PHH practices.

- *Monitoring progress of associations/cooperatives, and grant recipients* to ensure that the problems encountered by the new organizations could be resolved before they caused irreversible damage to their development. Also, grants were monitored in an effort to determine that they were going according to plan, and if not to find out why not, and then determine mid-course actions that could be taken to complete the grant project in the most effective manner possible.

The **Association/Cooperative Development** team, while it had specific actions of its own, was an integral part of the overall implementation approach used by the AMP. The farmers that were members of associations and/or cooperatives that the AMP worked with were client members of the project and they received full support from the commercial farming, market development, and market information teams in the project. The grants supported by this team were supported training activities of farmers who were not cooperative members, as well as those who were. This integrative team approach provided for efficiency in passing on lessons to farmers and other participants in the market chain, whether or not they were cooperatives, and did not set them apart from other support activities of the project.

The **Market Information System (MIS)** team acted as glue in the AMP approach by providing target client groups and other participants in the F&V supply/value chain with technical/marketing ideas, market news, price information, commodity forecasts, and purchase/sale opportunities on markets throughout Ukraine. Success derived from having seven (one central and six regional) project implementation teams that understood the produce system supply/value chain and helped to integrate all participants in the system from producer to consumer. To help ensure the effectiveness of the MIS, the AMP employed staff that conceptualized/designed the approach used, and hired a subcontractor with strong MIS implementation experience to execute the approach. Key specific actionable tasks of this team are set out below:

- *The Agro-Review: Vegetables and Fruits* weekly magazine: (printed circulation of 2,500) covers agricultural news, project news and announcements, technical articles, success stories, market news, and market reports. The market reports showing wholesale price monitoring and analysis is based on regular communication with 250-300 market intermediaries and farmers, and daily price monitoring on the three major wholesale markets in Ukraine. In addition, retail price information on 42 commodities from farmers markets and supermarkets in 16 Oblast centers, and bids and offers price lists and analytical articles on “hot topics” went out to clients on a regular basis.
- *The AMP website, www.lol.org.ua* – was updated daily with similar information to that published in the magazine each week. It contained analyses of statistics, interviews with officials and market players, reports from and about various important industry events, technological and marketing articles, and useful links to other web sites, market

players' databases, other resource materials, and articles on legal and other issues of interest to farmers.

- *The AMP Database*: included detailed information about the project clients, allowed placing offers and bids in real time to the web-page, allowed project employees to analyze statistical information easier, and to monitor the project's performance.
- *MI consultations*: APK-Inform analysts and market monitoring specialists provided market information consultations to supermarkets, processors and wholesalers, sharing the latest market developments and collecting information from them. The AMP MI specialists provided consultations, mainly with farmers and local intermediaries. They provided information about latest market developments and prices and leads with respect to the purchase and sale of various produce items.
- *MI training*: the AMP regional MI specialists participated in seminars, roundtables and other events in each target oblast, responding to the most important issues associated with MI. APK-Inform assistance was provided in this area, as well.
- *Bids and offers (price lists)*: the AMP bids and offers system provided information on fresh produce, raw material and processed food products, farm inputs, machinery, equipment and services offered and sought by farmers, agribusinesses, marketing firms and farm input suppliers.
- *Publications*: project specialists of all teams in the AMP submitted over 700 articles and news items for publication in Agro-Review magazine and on the www.lol.org.ua website. Most articles were related to technologies of production, PHH, packaging and storing fruits and vegetables, as well as articles related to marketing, market information and useful experiences of farmers and market participants such as wholesalers, processors, and retailers.
- *Research*: the AMP, with APK-Inform's support, conducted research to forecast vegetable production and prices early in the year and, this was updated near harvest season. The effectiveness of the AMP's MI system was monitored through specialized surveys twice per year. The AMP's MIS team also took part in conducting studies related to produce industry hot issues.
- *Wholesale price monitoring*: the AMP MI specialists monitored daily prices during the season for the three major wholesale markets in Ukraine: Kopani in Kherson, Shuvar in Lviv, and Troeschina in Kyiv.
- *Local and National Media Contacts*: the AMP MI specialists, as well as the Kiev office specialists, maintained active contact with national and local newspapers, TV, radio, Internet and other media and provided them with weekly market information that could be reprinted or quoted. At least two press-conferences were organized by each regional office during one project year to share the most valuable market information and present the AMP activities and achievements in the region.

- *Fruit and Vegetable Industry Conference:* the AMP MIS team, APK-Inform, and all project team specialists took an active part in preparing and conducting an International Fruit and Vegetable Industry Conference. The first such conference was held in 2004; the second was held in December 2005; and, the 3rd international conference and exhibition was carried out on December 5-6, 2006. This conference brought together over 300 specialists representing 210 market players from 14 countries, as well as many farmers and industry participants from Ukraine. It has evolved into a centerpiece event.
- *PR and Outreach:* the AMP website, as well as direct contacts by the AMP team through mass media, provided the opportunity for national exposure and focused attention in local publications. This allowed the AMP to report its achievements to an audience well beyond the borders of the six target regions and allowed the AMP to attract more clients to the project.

The information provided by the AMP to clients has gone a long way to remove the information barrier and has helped farmers and market participants working in the produce supply/value chain to be much more responsive to markets, and to the activities they can do to extend the market season and gain maximum revenue for their products. Often the importance of good timely market information is overlooked when planning agricultural development projects. The AMP experience attests to the importance of good timely market information. Because of this, the AMP team at all levels was able to advise farmers and market participants much more effectively. It contributed twice as much to increased farm revenues, as have direct sales to market participants with whom farmers have been linked. It has returned on the order of \$12 for every \$1 spent on the activity. Also, it is one aspect of the AMP project that has the greatest likelihood for sustainability after project completion. The MIS was certainly the glue that tied all components of the project together. The information and contacts with the public and media ensured that the project was known broadly and was sought out by farmers and market participants at all levels.

The AMP experience shows that the project components described were highly integrated and interrelated, like the agribusiness system itself which has interdependent business linkages between producers and marketing firms. The AMP experience also showed that the type, content and level of activities needed under each component will vary from region to region depending on the local market infrastructure development and access to markets, regional specialization and actual training and technical assistance needs/knowledge gaps of target producers and market firms. Also, the economic conditions, SME level of development, and consumer spending power and sophistication in each oblast determines the level and type of actionable activities that work best. Thus, while the approach used in Ukraine has worked well, the model needs to be adapted to the realities of the environment where it is to be implemented.

Finally, several pre-conditions for success helped. Depending on the state of these pre-conditions, the approach will be more or less successful; but it will be successful. Important pre-conditions have been determined to include: an educated and trained labor

force; motivated, trainable hard-working farmers; good, open-minded management of wholesalers, processors, and retailers; a basic transport infrastructure, a government willing to let participants in the system expand and operate in a private sector manner without unnecessary interference; support from input supply companies that see opportunity for their businesses; a local market of critical size to support development without dependence on export markets. While these pre-conditions are important, it is most important to have a project team of people who were well trained, properly organized and managed, and experienced in the implementation of the various initiatives and activities of the project. The AMP has been fortunate to have such a team.

Advantages and Disadvantages of Methods and Actions Used by the AMP

Method/Action	Component	Advantages	Disadvantages
Seminars and Workshops	All Project Components	<ul style="list-style-type: none"> - Very beneficial for participants interested in new knowledge - Possibility to organize more practical events related to a specific problem/subject - Careful pre-selection of the participants/visitors can assure essential feedback and impact 	<ul style="list-style-type: none"> - Limited number of people participate in one training event - Pre-selection of participants is required
Demo Plots	Commercial Farming and Market Development Components	<ul style="list-style-type: none"> - Extremely helpful for practical demonstrations of production and marketing technologies - Is beneficial for development of hosting farm/company - Is useful for practical testing of new technologies and methods 	<ul style="list-style-type: none"> - Weather conditions could have a negative influence (mostly when demonstrating production technologies) - Hosting farm/company should be selected carefully - Continuous support to the hosting farm/company is required
Training Materials (manuals, publications, articles)	All Project Components	<ul style="list-style-type: none"> - Broader geographic outreach (outside of the six oblasts where project worked) - Longer-term impact: people will use these materials after the project ends 	<ul style="list-style-type: none"> - Information can be outdated in a short period of time (need to adjust to the real situation)
Study Tours	Commercial Farming, Market Development, Producer Associations/ Organizations	<ul style="list-style-type: none"> - It is very important to see first-hand how things operate - New contacts are made while traveling; and, - Gain more confidence to implement something new 	<ul style="list-style-type: none"> - Limited number of people can participate - Rather expensive and time-consuming (during organization) event
Direct Assistance with Contract Negotiations	Market Development Component	<ul style="list-style-type: none"> - Very beneficial to have forward contracts for both producers and market players - A more predictable market was being created with the help of forward contracts 	<ul style="list-style-type: none"> - Can be tricky to work between farmers and market players, but when made contracts should be executed 100%; - Parties of the contracts do not always honor the contracts, disrupting expectations of both the supplier and buyer
Coaching	Market Development Component, Mainly	<ul style="list-style-type: none"> - Most beneficial way to train people (i.e., merchandizing, produce display management), because after training sales gains were often 20-25% 	<ul style="list-style-type: none"> - Limited number of people could participate - Time-consuming events
Training Related to Marketing Displays in Supermarkets	Market Development Component	<ul style="list-style-type: none"> - Good as a training experience and benefits were noticed - A sustainable long-term positive effect was expected 	<ul style="list-style-type: none"> - Unless the senior management supports the enforcement of standards, the produce department may not stay committed

Method/Action	Component	Advantages	Disadvantages
Market Information Provided Regularly	Market Information Component	<ul style="list-style-type: none"> - Timely information was identified as being very important - Paper as well as electronic distribution (via our website) were both important - The development of a comprehensive client database will help as former AMP teams work to develop their activities into sustainable businesses 	<ul style="list-style-type: none"> - Hard to get people to pay for information because they think it is a free good - While the website has been useful, it was not as useful for farmers because many do not have access to computers - Bids and Offers (electronic system) take time for people to get use to, but once they do it is very useful to the users
Farm Business Model	Market Development Component	<ul style="list-style-type: none"> - Good, as it helped people understand more clearly the aspects of profitability for each crop they produced - The system is complicated enough to require someone to help the farmers with preparation and use of the system, but if they can, it is a very supportive tool for them 	<ul style="list-style-type: none"> - Requires computer and respective computer skills for farmers to continue usage of the model - May not get used fully because the local team does not fully appreciate the value
Conducting Market Research	Market Development Component	<ul style="list-style-type: none"> - Beneficial if the survey is geared to the right audience and the results are properly summarized and presented - Helps to provide policy makers with needed information 	<ul style="list-style-type: none"> - Has a time value, so its useful life is relatively short
Issuing Development Grants to Cooperatives	Producer Associations/ Organizations Development	<ul style="list-style-type: none"> - Can help provide the support needed to get cooperatives started and functioning - Can help implement and promote new marketing, Post Harvest Handling, etc. technologies/methods 	<ul style="list-style-type: none"> - Unless the cooperative actually gets to the stage of financial independence, it may not make the difference necessary to help them to survive - Need to be sure to try and select the right groups
Annual F&V Conference	Market Information, Commercial Farming, Market Development Components	<ul style="list-style-type: none"> - Can help bring people together to discuss their common concerns - Can help to build good business contacts for the future - Can help to show farmers and other players new equipment that can help the business keep at the cutting edge of competitiveness - These conferences have been, by and large, self-sustaining; and, this is best for continuity into the future 	<ul style="list-style-type: none"> - The reach of a conference is somewhat limited because smaller private farmers do not have the means to make the trip to Kyiv for the conference - Requires substantial time and human resources for organization and execution

Major Accomplishments

The most important achievement of the project could be considered that the F&V market has become more open and transparent, at least in the six oblasts where the AMP had regional offices. The project MIS, assistance in produce marketing, the Annual F&V conference and various public relations actions helped to achieve this result.

During the four project years, produce sales directly facilitated by the AMP exceeded *75 million UAH* (almost \$15 million). Besides this, the total accumulated economic impact of the AMP's MIS during the project's term (2003-2007) was estimated at *148 million UAH*, or over \$29 million (gained due to additional sales and more favorable prices received by producers for their produce and/or paid by producers for farm production inputs).

The AMP actively developed and supported new relationships along the supply chain that have helped chain members to operate more effectively. Forward contracts between producers of fruits and vegetables and wholesalers, retailers, canneries, and other marketing groups were considered to be extremely important for stable and successful development of the industry. Since the beginning of the project, the AMP specialists assisted with the development and signing of over 300 forward contracts for an amount of over *27 million UAH* (\$5.3 million).

The AMP conducted many training events (seminars, demo plots, workshops), most of them were specialized (production and marketing technologies and practices, market information, development and organization of producer groups, merchandizing practices, and other similar market-focused events) and were given careful pre-selection to ensure the audience would be interested in the events' subjects. Demo plots were considered to be especially successful because many market players (farm input suppliers, wholesalers, retailers, and processors, to name a few) used the AMP experience and started conducting their own demo plots (practical seminars). During the demo plots many new produce varieties, new packaging options, and post-harvest handling methods were demonstrated to farmers and other market players.

Since the beginning of the project, 235 practical seminars (including 52 demo plots/Orchard Days), over 247 roundtables/workshops/presentations/conferences and over 1,151 working meetings have been conducted. The total number of people attending these events was nearly *14,000*.

During its activity, the AMP accumulated essential practical experience and information which was unique for Ukraine and other countries in the region. This refers to technological and marketing information gathered during demo plots and other training events conducted by the AMP, results of marketing surveys, data collected via the Farm Business Model, and many others of similar nature.

The AMP prepared and published ten manuals, surveys and research papers with a total circulation of over 10,000 copies. Some of them include:

- manual “*Packaging Fresh Fruits and Vegetables*”;
- manual “*Experience of Production and Marketing of Vegetables in Ukraine: Results of the AMP Demo Fields During the 2004-2005 Seasons*”;
- survey “*Fresh Produce Consumption Trends in Ukraine*”;
- three research papers published under title “*Peculiarities of wholesale and retail trade of fresh produce in Ukraine*”;
- manual “*Produce Storage Technologies and Effective Post-Harvest Handling Practices*”;
- manual “*Modern Merchandizing Practices of Fruits and Vegetables*”;
- manual “*AMP’s Demo Field Program Results for Fruit Crops and Berries During the 2004-2006 Seasons*”.

From December 5 to 6, the third International Conference "Fruits and Vegetables of Ukraine 2006 - Open Market" was held. Over 300 specialists representing 210 companies from 14 countries took part in the conference. This was the third in a series of annual conferences that the AMP initiated, and was the strongest of the three. Moreover, the third conference appeared to be self-sustainable from a financial point of view and it is expected that holding of the annual conference will continue after the AMP ends.

Besides the above-mentioned accomplishments, which were more or less measurable, we believe that this project also helped change the minds of farmers facilitating a better appreciation/understanding of:

- the importance of producing for markets rather than just producing to produce
- the need to stretch their marketing season at both ends – early and late – and using proper PHH procedures in helping to extend the season
- the export opportunities for properly-produced and packaged F&Vs
- the profitability of F&V when compared with returns of other crops (wheat, barley, etc.) they might produce
- the importance of farmers working together as groups to build market bargaining power and an ability to better serve markets and gain advantages in the purchase of inputs and arranging finance
- the need for trust in the relationships between farmers and buyers (wholesalers, processors, and retailers) so that forward contracts work well for both parties

IV. FRUIT AND VEGETABLE INDUSTRY OVERVIEW

General Overview

Ukraine has many components of a major European economy -- rich farmlands, a well-established industrial base, highly-trained labor, and a good education system. The economy will grow significantly more quickly than the developed Western European economies. It has one of the leading Gross Domestic Product (GDP) growth rates in the Former Soviet Union (FSU). Ukraine should be a positive place to seek investment opportunities as the economy continues to grow.

Ukraine has a long and rich history of agriculture production; it was known as the “bread basket” of the former Soviet Union. The country boasts 40 million hectares of agricultural land, of which 33 million, 54% of the country’s land area, is quite arable. Ukraine’s soil is one of the most fertile in the world and accounts for a substantial percentage of the world’s highly productive Chernozem. Chernozem soil is black in color, deep (up to six meters in some regions of Ukraine) and is rich in phosphoric acids, phosphorus and ammonia and is so fertile it can produce without additional fertilization, if necessary.

In addition, weather conditions in Ukraine are favorable for producing temperate F&Vs. Ukraine has, depending on location, a growing season, which lasts for at least 90-120 days each year. At the same time, due to its large territory, climatic conditions vary sufficiently from region to region to permit production of a broad variety of F&Vs. Production of F&Vs in Ukraine is increasing as modern technologies are adopted: drip irrigation, agro-fiber, low-cost temporary greenhouses, and modern PHH practices, to name a few. For example, an earlier study showed that the total production area under drip irrigation increased by a stunning 49% from 2003 to 2004, and by 25% from 2004 to 2005. The AMP, via drip irrigation industry contacts, estimated that the area under drip irrigation increased by another 20% during the 2005/2006 production season, to about 35,000 hectares.

The agriculture sector in Ukraine has been in transition since independence in 1991, following the break-up of the FSU. State and collective farms were officially allowed to privatize in late 1999. Presently, agriculture represents about 12.5% of Ukraine’s GDP¹ and about 32% of the country’s population lives in rural areas. The F&V sector was not considered a major focus under the planned economy as production of grain, sunflower seeds, sugar beets, meat and dairy received far more resources during Soviet times. As a result, partially because of inadequate production and partially because of a poor distribution system, F&V products were often in deficit and this caused people to grow F&Vs on private land plots and at “dachas”. Even now, the share of home-produced fresh and processed F&V products is still high and creates competition with commercial producers. The F&V sector accounts for roughly 25% of overall revenue received by

¹ According to Institutes for Economic Research and Policy Consulting.

agricultural producers. While this is likely higher than what is reported officially, it is because many F&Vs are sold for cash and not captured in the official statistics. About 96% of all food products consumed in the country, and 85-90% of F&Vs, are domestically produced. Imported F&Vs are generally citrus, other tropical fruits and some off-season F&Vs.

Major problems impeding the F&V industry development include: a) the under developed infrastructure of the wholesale and retail trade for fresh F&Vs – its inefficiency lowers the farmers' price and increases the price to consumers; b) difficult access to capital – it is less problematic for processors, but, very challenging for farmers; c) the industry is exposed to uncertainty associated with instability that surrounds the agricultural regulatory environment; and, d) the industry is highly exposed to weather and climatic risks.

Immediately following independence in 1991, agricultural trade declined, and overall exports were at \$US11.8bn in 1994. By 2004 they were back to \$US32.9bn, an increase of 180%. Agri-food exports in 1994 were \$US1.6bn; in 2002 they reached \$US2.4bn, an increase of 50%. But, in spite of the rise since 1994 the agri-food sector is less important as a revenue earner for Ukraine than it was in the past, both in absolute and relative terms. Thus, it is time for the sector to regain its contribution to the Ukrainian economy by realizing its full potential.

With its central location between the European Union (EU) and the FSU, Ukraine has a location that permits competitive attractiveness for land transport of products east or west, allowing the country to be a major food supplier to two major market regions. The F&V sector should be an important part of this growth potential.

Fresh Fruits and Vegetables

First of all, it must be stressed that the official statistics for F&V production are not extremely reliable. In general, they do capture the trends, but even here the error is high. Still, there is no better data gathered broadly; thus, it is necessary to use this information to determine trends.

The volume of fresh F&V production generally declined each year following independence, and by 2001 the production of vegetables and fruits was at 89% and 38% of its 1990 level, respectively. This resulted from the fact that a high concentration of vegetable production was carried out by small plot holders. In the case of fruits, much of the production was concentrated on large-scale orchards connected to former collective farms, and many of these orchards were abandoned. This development caused a shift in the production structure, particularly for fruits, as now about 87% of vegetables and 86% of the fruits are grown by small farmers and household plot owners. According to available official data and interviews with industry players, the output has been growing steadily each year since independence, and since 2003. The numbers are shown in Table 1.

Table 1. Fruits, berries, vegetables and potato: area (ths. ha), yield (t/ha) and production (ths. tons) in Ukraine according to official statistics

Regions	2003			2004			2005			2006 (forecast)			2006 compared to 2003		
	area	yield	production	area	yield	production	area	yield	production	area	yield	production	area	yield	production
Total	2,398	11.1	26,575	2,342	12.5	29,216	2,270	12.5	28,290	2,470	12.4	30,739	3%	12%	16%
Crimea	77	5.7	434	73	5.1	373	67	5.5	368	70	5.7	400	-9%	1%	-8%
Vinnitsya	160	10.8	1,721	160	12.3	1,960	156	12.8	1,990	164	12.2	1,993	2%	13%	16%
Volyn	89	13.9	1,238	88	14.2	1,245	84	14.5	1,214	92	13.6	1,255	3%	-2%	1%
Dnipropetrovsk	97	12.7	1,228	96	13.7	1,317	93	13.1	1,212	102	13.6	1,395	6%	7%	14%
Donetsk	108	10.1	1,095	118	12.7	1,489	113	12.3	1,387	124	11.8	1,451	14%	16%	33%
Zhitomyr	89	15.4	1,369	83	17.1	1,421	79	17.0	1,347	87	15.9	1,382	-2%	3%	1%
Zakarpattia	60	13.5	812	61	13.8	837	60	13.6	824	67	13.1	882	12%	-3%	9%
Zaporizhzhia	82	6.7	550	77	9.7	749	73	9.6	699	78	9.3	723	-5%	39%	31%
Ivano-Frankivsk	87	11.6	1,014	84	12.1	1,015	83	11.0	910	90	11.9	1,066	3%	2%	5%
Kyiv	141	12.0	1,699	130	11.7	1,523	129	12.0	1,546	142	12.4	1,763	0%	4%	4%
Kirovohrad	90	8.6	774	86	11.4	981	80	10.2	820	89	10.5	930	-1%	21%	20%
Luhansk	66	8.7	569	63	10.4	656	62	15.8	978	67	14.4	968	2%	67%	70%
Lviv	135	13.7	1,854	133	14.1	1,879	133	13.1	1,735	146	14.3	2,094	8%	4%	13%
Mykolaiv	54	7.5	409	54	8.9	478	53	9.7	515	57	10.0	571	5%	32%	40%
Odesa	90	7.5	675	91	11.4	1,040	88	11.9	1,041	90	12.2	1,091	-1%	63%	62%
Poltava	95	12.0	1,139	93	14.5	1,348	91	14.7	1,336	109	12.4	1,346	14%	4%	18%
Rivne	84	13.8	1,166	83	16.0	1,334	84	13.5	1,130	92	14.3	1,311	8%	4%	12%
Sumy	92	12.1	1,107	86	12.9	1,109	82	13.0	1,066	90	13.6	1,216	-2%	12%	10%
Ternopil	85	11.2	948	77	12.3	947	74	11.5	847	80	12.3	990	-5%	10%	4%
Kharkiv	134	10.1	1,349	128	12.5	1,604	131	14.2	1,857	143	14.0	2,005	7%	39%	49%
Kherson	69	11.0	758	77	9.7	744	69	11.5	791	76	11.7	887	10%	7%	17%
Khmelnitsky	116	10.8	1,248	113	13.2	1,492	111	12.0	1,341	119	11.9	1,412	2%	10%	13%
Cherkasy	117	9.7	1,132	111	11.3	1,260	107	11.7	1,247	114	11.1	1,272	-2%	15%	12%
Chernivtsi	57	10.1	582	57	11.5	653	56	11.8	660	60	11.5	688	5%	13%	18%
Chernihiv	124	13.8	1,703	120	14.6	1,760	115	12.5	1,431	126	13.1	1,648	2%	-5%	-3%

Table 2. Vegetables: area (ths. ha), yield (t/ha) and production (ths. tons) in Ukraine according to official statistics

Regions	2003			2004			2005			2006 (forecast)			2006 compared to 2003		
	area	yield	production	area	yield	production	area	yield	production	area	yield	production	area	yield	production
Total	483	13.5	6,538	478	14.6	6,964	467	15.6	7,295	535	16.1	8,624	11%	19%	32%
Crimea	19	7.1	132	18	7.2	127	16	8.0	128	18	9.9	176	-4%	39%	33%
Vinnitsya	16	14.5	234	16	15.4	241	16	18.8	293	18	17.9	317	9%	24%	36%
Volyn	11	15.9	171	11	17.4	185	11	20.3	215	12	19.0	231	13%	19%	35%
Dnipropetrovsk	30	16.2	492	30	16.6	499	29	16.9	494	34	18.4	622	12%	13%	26%
Donetsk	30	13.4	401	34	15.3	519	33	14.2	475	37	14.9	559	25%	12%	39%
Zhitomyr	10	19.8	205	10	21.1	207	10	20.9	203	11	22.1	246	7%	12%	20%
Zakarpattia	12	16.7	208	12	17.5	216	13	17.4	218	14	18.5	260	12%	11%	25%
Zaporizhzhia	30	8.5	252	28	11.1	311	26	11.5	298	29	11.9	344	-3%	40%	36%
Ivano-Frankivsk	11	13.9	151	10	13.3	131	9	13.5	127	11	14.6	156	-1%	5%	4%
Kyiv	24	14.1	333	21	14.5	309	22	18.0	402	26	19.0	489	9%	35%	47%
Kirovohrad	23	14.0	325	22	13.9	300	20	13.5	269	23	14.7	343	1%	5%	5%
Luhansk	15	10.6	159	14	12.8	180	14	20.5	278	15	19.7	299	1%	85%	87%
Lviv	21	15.7	327	20	16.1	328	21	18.3	380	25	17.8	450	22%	13%	38%
Mykolaiv	19	9.3	180	19	11.7	221	19	14.0	267	22	14.4	314	13%	54%	74%
Odesa	35	12.6	436	37	16.4	599	35	14.9	526	41	16.0	656	18%	27%	50%
Poltava	22	16.0	344	21	17.6	376	22	16.2	350	24	14.9	358	12%	-7%	4%
Rivne	10	17.4	170	9	19.7	185	10	17.7	171	11	17.7	200	15%	2%	17%
Sumy	12	14.8	173	11	15.2	162	10	13.6	140	11	14.7	169	-1%	-1%	-2%
Ternopil	11	14.7	156	9	13.4	123	10	15.3	145	11	16.5	183	5%	12%	18%
Kharkiv	32	14.1	455	31	16.3	500	32	16.5	523	37	17.2	629	13%	22%	38%
Kherson	37	12.0	437	43	10.3	440	37	14.1	526	42	14.6	609	14%	22%	39%
Khmelnysky	11	14.7	169	11	20.0	225	11	20.3	225	13	19.5	246	10%	33%	46%
Cherkasy	19	16.7	320	19	13.2	252	20	14.9	296	23	15.8	369	22%	-6%	15%
Chernivtsi	11	12.9	144	11	14.7	158	11	17.6	185	12	15.2	182	7%	18%	26%
Chernihiv	13	13.0	164	12	14.2	171	13	12.9	162	14	15.3	218	14%	17%	33%

Table 3. Fruit and berries: area (ths. ha), yield (t/ha) and production (ths. tons) in Ukraine according to official statistics

Regions	2003			2004			2005			2006 (forecast)			2006 compared to 2003		
	area	yield	production	area	yield	production	area	yield	production	area	yield	production	area	yield	production
Total	330	4.8	1,586	308	4.9	1,497	288	5.3	1,533	285	4.5	1,269	-14%	-7%	-20%
Crimea	36	4.4	156	32	1.4	45	29	2.8	81	28	1.4	39	-23%	-68%	-75%
Vinnitsya	26	6.6	171	25	5.6	141	23	7.5	175	23	7.6	176	-9%	14%	3%
Volyn	4	7.2	25	4	8.5	30	4	6.8	24	4	6.7	24	1%	-7%	-7%
Dnipropetrovsk	18	7.8	141	18	8.0	144	16	8.2	135	16	7.6	124	-10%	-3%	-12%
Donetsk	14	9.3	130	13	13.9	182	12	15.8	192	12	9.7	117	-13%	4%	-10%
Zhitomyr	9	3.2	30	9	2.6	23	8	4.1	33	8	3.9	31	-16%	22%	3%
Zakarpattia	14	6.0	82	14	4.4	60	13	4.8	63	13	4.7	62	-4%	-20%	-24%
Zaporizhzhia	15	5.1	75	12	5.7	69	12	5.9	71	12	4.0	48	-16%	-23%	-35%
Ivano-Frankivsk	8	3.5	29	8	3.3	27	8	3.3	28	8	3.3	27	-1%	-5%	-6%
Kyiv	13	3.5	45	12	2.8	34	12	2.0	23	12	2.1	25	-8%	-40%	-45%
Kirovohrad	9	1.8	16	7	3.3	24	7	2.9	19	6	2.3	15	-25%	26%	-6%
Luhansk	11	5.0	54	10	3.0	30	10	3.2	30	9	3.4	31	-14%	-33%	-42%
Lviv	12	5.3	65	12	6.6	81	12	4.7	58	12	5.7	71	0%	8%	8%
Mykolaiv	10	3.6	36	10	3.2	31	8	4.3	36	8	3.5	28	-19%	-3%	-21%
Odesa	21	5.0	103	19	5.5	104	16	6.7	109	16	4.4	72	-22%	-11%	-30%
Poltava	9	3.1	27	8	3.8	30	8	4.6	36	8	3.9	31	-11%	26%	13%
Rivne	8	4.5	34	7	8.3	61	7	6.5	47	7	7.1	51	-8%	60%	47%
Sumy	5	1.4	7	4	1.8	8	4	2.2	8	4	2.2	8	-26%	60%	19%
Ternopil	6	2.6	16	6	3.6	22	6	3.3	20	6	3.1	18	-4%	17%	12%
Kharkiv	14	4.8	65	13	3.1	40	12	5.2	64	12	4.4	53	-12%	-7%	-19%
Kherson	10	7.9	81	11	4.7	52	10	5.6	58	10	4.9	50	0%	-38%	-38%
Khmelnitsky	28	2.9	82	26	5.8	150	24	5.8	138	23	3.6	82	-20%	26%	0%
Cherkasy	11	3.8	40	8	4.1	33	8	2.8	22	8	2.9	22	-27%	-24%	-45%
Chernivtsi	13	4.3	56	13	4.5	59	13	4.1	55	13	3.9	50	-1%	-10%	-11%
Chernihiv	8	2.4	19	7	2.6	18	6	1.7	11	6	2.4	15	-24%	-1%	-24%

Production of fresh F&Vs (excluding potatoes) tends to be concentrated in the southern oblasts of Ukraine. Exceptions were those crops which have vegetation not too sensitive to low temperatures, such as apples and pears. For some crops, production is even more geographically concentrated; for example, 42% of melons and 23% of tomatoes are grown in Kherson oblast, 11.3% of cucumbers are grown in Kharkiv oblast, and, 10.8% of onions are grown in Odessa oblast. The data set out in Tables 2 and 3 above show the production by oblast in 2003-2006 of major vegetables and fruits and berries, respectively.

The AMP issued production forecasts every year for the past three years based on a combination of preliminary official statistics and an AMP survey of growers. These forecasts have proved to be quite accurate in the past few years. The AMP estimates were also used by the industry to determine trends. Therefore, since the final official data for 2006 is still not available, the AMP forecasts have been used and are set out in Tables 1-3 above. It is believed that these estimates will not differ significantly from the final statistical data when it becomes available.

Before analyzing the situation in great detail, it should be mentioned that 2006 was not a very typical year. During the winter 2005-2006 orchards suffered from frosts that were more severe than experienced in any recent previous year. This caused a sharp decline in fruit production, and in fact, some crops such as peaches and apricots were nearly 95% lost. Thus, this severe weather significantly affected production trends. Also, 2006 was not particularly favorable to vegetable crops in many regions of Ukraine, but not as bad as for fruit crops.

Still, the information the AMP had shows that production of F&Vs during the three years of the project (from 2003 until 2006) had increased 16%. If 2006 had not been a poor crop year, the increases would have been in the range of 20-25%. While expanded area has provided some contribution to growth, the productivity contribution to growth has been more substantial - average yields increased by 12% since 2003, while land area expanded only 3%. This resulted from more and more farmers introducing modern farming technologies (drip irrigation, agro-fiber, low cost temporary greenhouses, and PHH, to name a few) and yields have increased.

A review of the vegetable production sector (Table 2) shows an increase in the production area of about 11%, but at the same time productivity has gone up 19% for a total increase in production of 32%. At the same time, however, the fruit and berry production sector showed a decline in planted area (Table 3) since 2003. But, production did not decline over the period (exception 2006 when weather was very unfavorable) because average yields increased slightly. This occurred because farmers actively removed old soviet-style orchards with low productivity and replaced them with new, more intensive, highly-productive orchards. Thus, trends have shown positive increases over the period 2003 to 2006, with 2006 being an exception due to weather.

The AMP team forecasts that Ukraine will become a large exporter of apples, peaches and some other fruits in about five years. This is because with the AMP assistance, many small farmers have reinvested profits gained in the vegetable business in new orchards.

Also, the AMP attracted several large-scale investors to this sector, and they are expanding rapidly.

Most of the AMP efforts were focused on the promotion of efficient marketing and on the production of vegetables and fruits for improved quality, not just production. Thus, the AMP is happy to report that all target oblasts demonstrated positive production and yield trends for vegetables (Table 2). Odesa became the second largest vegetable growing region during the three years and increased vegetable production by 50% and average yields by 27%. Production of vegetables in Lviv grew 38% and yields by 13%.

Cherkasy, which had to re-focus production from root crops and cabbage to lower yielding crops like cucumbers to satisfy processors' demands, has increased the area under vegetables by 22% and production by about 15%. Due to the refocusing of production as well as the severe drought in 2006, the average yield of vegetables declined in 2006 by 6%. However, for all key crops, average yields showed increased trends despite the drought. A similar situation was noted in Poltava, where production increased 4% and yields declined by 7%.

Zakarpattia oblast demonstrated a very substantial growth in production – 25% over three years and, average yield increases of 11%. Production of vegetables in Crimea increased 33% and yields increased by 39%. All the AMP oblasts have also demonstrated positive trends in production and yields of potato, despite it not being the best year for this crop in 2006.

The vegetable, fruit, and berry sectors are gaining in attractiveness to small private farmers because of their profitability – although it requires much more investment per hectare than grain and sunflower growing, vegetable, fruit, and berry production provides much more return on investment – 50 to 100 percent more, and it is possible to make from \$5,000 to \$75,000 in profit per hectare².

Processed Fruits and Vegetables

Due to the AMP's short project life (three growing seasons) efforts were mainly focused on the vegetable business development, as it is an area where more rapid impact may be achieved. Project efforts in the fruit sector will yield first impacts in three to five years, as it is when the first modern orchards established with project assistance will yield substantial fruit production. Therefore, vegetable processing trends are analyzed first. Also, official processing statistics for 2006 were not available at the time of writing this report; thus, the analysis compares 2003 and 2005 and provides the AMP estimate for 2006.

The processed F&V industry grew dynamically over the period 2003 to 2005, up 65% according to official statistics, for the period. This implies that the industry has grown at about 33% per year. It is the opinion of the AMP analysts that official statistics have not captured everything either, but it is still impressive growth. The AMP analysts also estimate that in 2006 the vegetable processing sector nearly doubled what was reported

² According to the Agricultural Marketing Project (www.lol.org.ua)

for 2005, meaning that in just three years the sector has grown by 3.3 times (230%) or 77% per year. And, the competition among industry players is intense, and concentration in the industry is very high – about 30-40% of industry output is produced by three to four industry leaders.

The AMP conclusions are based on the fact that the number of fruit & vegetable processors operating actively in Ukraine has increased from around 15 in 2003 to around 125 in 2006. Moreover, many existing processors increased their capacities substantially. In spite of the fact that many new processors appeared, the industry is still dominated by a few firms. In 2006, supplies of vegetables reached levels that had not been seen for many years and processors stepped up their production significantly. One leading firm in the industry who was interviewed by the AMP analysts reported quadrupling, in 2006, their production over 2005. Another leading company mentioned a three-fold increase. Of those interviewed, the lowest increase mentioned was 100%. It should also be noted that there were several new companies operating in 2006 that were not processing in 2005. Thus, the AMP team believes its estimate of a 100% increase in processing activity in 2006 over 2005 should be considered reasonable and perhaps modest.

During the three years that the AMP was operating, several new industries were created. In 2003 the Individual Quick Freeze (IQF) (flash freeze) industry in Ukraine was pretty much non-existent. Today there are at least 15 companies involved in this business, including some foreign investors. Also, when the AMP started the fruit and vegetable drying business in Ukraine was basically non-existent. Now it is one of the most dynamically growing sectors of the F&V industry, and was a segment promoted by the AMP.

Certainly, not all the increase in the sector can be attributed to the AMP activities in Ukraine. However, many companies have learned about opportunities in this industry through the AMP web-portal, publications, PR activities, annual conferences, and the over 1,600 training events run by the project during the last three-and-a-half years in six target oblasts. Many groups interested in the sector have also consulted with the AMP staff regarding their investment plans.

Also, if we examine what has happened in the oblasts where the AMP dedicated work was carried out, it is interesting to note that the six oblasts where the AMP worked accounted for 37% of the processed vegetables in Ukraine in 2003, and that this has increased to 47% of all Ukrainian processed vegetables in 2005. The major contributors among the AMP target oblasts have been Cherkasy, Odesa, and Zakarpattya.

Table 4. Vegetable Processing by Regions of Ukraine, MT (Official Statistics)

Region	2003	2004	2005	Increase in 2005 compared to 2003, %
Cherkasy	18,672	26,954	50,713	172%
Kherson	27,628	20,344	35,923	30%
Odesa	15,274	25,384	27,643	81%
Mykolaiv	17,569	10,876	18,533	5%
Zakarpattya	7,838	10,824	18,206	132%

Region	2003	2004	2005	Increase in 2005 compared to 2003, %
Dnipropetrovsk	2,262	4,796	11,356	402%
Kyiv	4,736	5,414	9,489	100%
Zaporizhzhia	7,437	5,823	8,316	12%
Vinnytsya	5,391	3,859	7,682	42%
Khmelnysky	3,600	4,465	4,959	38%
Ternopil	3,163	2,278	4,674	48%
Rivne	3,159	2,257	4,111	30%
Lviv	2,768	2,366	3,035	10%
Volyn	979	344	2,924	199%
Poltava	2,982	2,219	2,921	-2%
Chernihiv	2,078	1,412	2,825	36%
Donetsk	2,498	1,949	2,275	-9%
Crimea	1,258	828	997	-21%
Chernivtsi	1,664	887	879	-47%
Kharkiv	618	545	602	-3%
Ivano-Frankivsk	160	144	584	264%
Luhansk	457	159	582	27%
Kirovohrad	364	177	534	47%
Zhitomyr	214	156	190	-11%
Sumy	156	12	3	-98%
Total	132,926	134,470	219,955	65%

In fact, it can be observed (Table 4 above) that Cherkasy has moved to become the leading oblast among those processing vegetables moving ahead of Kherson in 2004 and 2005. In 2006 the gap between the two oblasts increased even further. During the past two years, the increase in processing in Cherkasy was equal to 172%. In 2006 Cherkasy is expected, according to the AMP estimates, to triple its production when compared to 2005.

Odesa, another oblast where the AMP worked, has increased processing activity by 81% and has moved ahead of Mykolaiv into third place as a vegetable processing oblast. Zakarpattia, also one of the project target oblasts, held onto its fifth position in 2005 as a leading processing oblast, but the oblast increased vegetable processing by 132% during the past two years and the 2006 numbers will show an even higher growth. It is expected that in 2006 Zakarpattia will move ahead of Mykolaiv to become the fourth largest vegetable-processing oblast, with volumes of processing being nearly as high as in Odesa.

It is interesting to note that during the period that Cherkasy, Odesa, and Zakarpattia have increased processing substantially, Mykolaiv grew hardly at all and Kherson by only 30%. These are oblasts where vegetable production is very important, and where stronger growth would have been expected.

Although the AMP did not officially work in Dnipropetrovsk, APK-Inform's office (subcontractor to AMP) is based there. The local team working on the AMP activities in

Dnipropetrovsk actively participated in various events in the region, organized trainings and seminars, and provided farmers and oblast administration with valuable market and technological information. Thus, some of the growth in the oblast (up 400% in the past two years) is thought to in part have been the result of the AMP efforts, helping the oblast move from 15th position in Ukraine to sixth place.

The AMP efforts in Crimea and Lviv were targeted at satisfying fresh market demand rather than in support of processors. In Lviv, much of the fresh market demand was previously covered by inexpensive vegetables illegally imported from Poland. The AMP team tried to assist the region in developing their own efficient commercial vegetable production. During the past three years, production of vegetables in the region increased 38% and potatoes by 8%, which has helped push Polish vegetables off the local fresh market.

Crimea, despite favorable climatic conditions, remained among the most deficient vegetable regions of Ukraine, which resulted in traditionally high prices on this market. Developing vegetable processing in this region, therefore, was not a good idea in such a situation and thus, the AMP tried to help develop production for the fresh market. During the past three-year period, production of vegetables in Crimea grew by 33% and production of potatoes by 27%. This was a very positive growth and much of the production went to serve the substantial tourist trade of the region.

In Poltava, vegetable processing, according to official statistics, declined by 2% in 2005 compared with 2003. It is difficult to explain this because since 2003 several new processing companies have been established and started operation in Poltava. Although many of our client-farmers have sold vegetables to processors in Cherkasy, the amount of vegetables processed in this oblast has certainly increased when compared with 2003.

In summary, processed vegetables, fruit and juice production increased 38% in 2005 compared with 2003. We expect that fruit processing will pick up in 2008-2009 and will start growing as rapidly as vegetable processing is growing now.

Table 5. Production of processed vegetables, fruits and juices by regions of Ukraine, MT
(Official Statistics)

Region	2003	2004	2005	Increase in 2005 compared to 2003, %
Mykolaiv	186,175	252,355	350,958	89%
Odesa	91,751	141,164	177,510	93%
Dnipropetrovsk	13,044	24,758	108,697	733%
Vinnytsya	99,162	76,529	99,741	1%
Ivano-Frankivsk	184,282	171,726	81,734	-56%
Cherkasy	23,201	33,095	55,465	139%
Kherson	37,920	280,120	53,274	40%
Zakarpattya	24,300	27,498	48,083	98%
Zhitomyr	4,414	13,273	24,806	462%
Kyvi	19,964	22,111	16,972	-15%
Ternopil	32,093	12,665	16,950	-47%

Region	2003	2004	2005	Increase in 2005 compared to 2003, %
Khmelnysky	16,208	14,443	16,907	4%
Rivne	11,116	11,890	14,779	33%
Chernihiv	12,328	19,465	13,095	6%
Zaporizhzhia	10,840	7,537	10,467	-3%
Lviv	13,008	10,291	9,599	-26%
Chernivtsi	14,924	9,359	9,058	-39%
Kharkiv	2,723	3,361	8,772	222%
Crimea	14,955	6,808	7,263	-51%
Volyn	3,636	3,573	6,734	85%
Donetsk	4,438	2,744	4,356	-2%
Poltava	5,718	3,336	4,098	-28%
Luhansk	2,906	1,474	1,451	-50%
Kirovohrad	585	435	965	65%
Sumy	380	88	159	-58%
Total	830,071	1,150,097	1,141,894	38%

While a large percentage of processed F&V products are consumed domestically, the export market is also important. Some major market trends for processed products include increased consumption of processed products, more demanding quality standards by consumers, and steadily growing exports of processed products (major markets - Russia, Germany and Austria).

According to official statistics, there were 538 F&V processing companies operating in 2003 (575 in 2002 and 661 in 2001). Many of these firms were old and only partially operational, and as indicated by the statistics, many closed after 2001. There are about ten companies which can be considered major and stable players; three of these dominate the market: Agroecoproduct, “Veres” brand; Gaisyn Cannery; and Chumak. Their combined market share for canned F&Vs is about 40-50%. For selected categories of processed product within the industry, the leaders might be different. For example, in juice, “Sandora” (brands “Sandora”, “Dar” etc.), “Vitmark-Ukraine” (major brand “Jaffa”), “Vinnifruit” (major brand “Vinni”) lead the market; for ketchups and tomato sauces, Nestle brand “Torchin product”, “Chumak” (brands “Chumak” and “Darina”) take the lead.

Table 6. Production of processed fruits and vegetables by category, millions USD

(Source: State Statistic Committee of Ukraine)

	2000	2001	2002	2003	Structure
Processed and canned fruits	43.0	62.8	62.6	106.2	35.85%
<i>Including fruit juices</i>	<i>33.0</i>	<i>54.0</i>	<i>54.8</i>	<i>91.8</i>	<i>30.98%</i>
Processed tomato products (including juices, pastes, ketchups etc.)	31.8	45.7	46.0	63.6	21.46%
Concentrated fruit juices for industrial use	11.7	13.0	15.3	41.1	13.85%
Processed potato products	8.2	19.8	22.9	39.8	13.43%

	2000	2001	2002	2003	Structure
Canned vegetables (without juices, tomato pastes and sauces)	18.2	23.7	32.8	36.6	12.36%
Frozen fruits and vegetables	3.9	3.9	4.7	7.8	2.65%
Vegetable juices	0.7	1.0	1.6	1.2	0.42%
Total production of processed F&V's	117.6	169.8	185.8	296.4	100.00%

A relatively new and promising sub-sector is frozen F&V processing, with at least 11 new facilities (Olvita, Euro-ice, Krasa Khersonshchyny, Krios, APK Vynogradiv, Khersonimpeksprodukt, Arti, Agrarna Fruit Ukraine, Sim Sim, Neris, to name some) recently constructed. This sub-sector is so new (less than three years) that it is difficult to assess its competitiveness.

Other Important Industry Developments

It is worth mentioning that during the years of the AMP's operation there was a very significant qualitative growth of the horticultural business in Ukraine. Such things as modern growing technologies, use of agri-fiber, drip irrigation, small plastic greenhouses, PHH, modern cold storage, CA storage, packing, and other similar technologies became widely known and used. Many leading seed suppliers reported tripling sales. Post-harvest handling, storage, and packing companies from Poland, Russia and other countries have established offices in Ukraine and said that they frequently did more business in Ukraine than in their home countries. Supermarket chains have grown substantially, and their fresh produce departments have grown in size and their produce displays have improved, but still much room for expansion and improvement is required. Prices for fresh fruits and vegetables in supermarkets have declined and often are now frequently lower than at bazaars.

ATTACHMENT A

SUCCESS STORIES

The Agricultural Marketing Project in Ukraine Helps Farmers Identify New Distribution Channels

The AMP project is currently working on ways to assist farmers in identifying, marketing, and better distributing their produce to increase incomes, lower expenses, and take advantage of market opportunities.



On photo: "Sonyachna Dolyna" farm stand, Bilyavskiy rayon, Odesa oblast

The experience of farmers in leading agricultural countries shows that one effective sales method is the direct marketing method – a foreign business-model of selling farmers' commodities, which can be utilized by Ukrainian farmers. The direct marketing sales method is based on low-cost advertising. This method includes roadside billboards and announcements, roadside merchandizing stands (permanent or tents), commodity sales directly from the field, and commodity sales using e-mail, fax, and regular mail.

The advantages of this method are as follows:

1. It is easy to use and may provide faster returns for a farmer
2. Farmers can work without leaving their farms/plots
3. Farmers have more control over their selling, and can set their own working hours
4. Farmers remove middlemen, and capture a greater percentage of the sales dollar
5. It provides the farmer a chance to charge a premium for freshness and quality
6. It reduces the amount of time and logistics expense involved in marketing as the ultimate consumer comes to the farmer instead of the farmer going to the consumer
7. It does not require expensive equipment, large initial capital inputs, and a separate office

8. It can bring farmers tens of thousands UAH in additional annual profit

One example of this method of direct sales can be seen in the successful joint project implemented by the Odesa AMP office and “Sonyachna Dolyna” farm, Bilyaivskiy rayon, Odesa oblast.

Before the AMP projects’ assistance farmer Vyacheslav Adyrov was selling his high-quality assortment of produce in a variety of different markets including supermarkets and regional farmers’ markets. The farmer only sold a portion of his produce to these specific markets and had difficulties in identifying and tapping new markets. He expended large volumes of time on distribution and accrued large marketing and transportation expenses to get his product sold. With the assistance of AMP, this problem was resolved by using the favorable location of the farm. First, it was suggested that he start a roadside merchandizing point, and second, that he use AMP pricelists and client lists to search for new potential buyers. With AMP support, a roadside pavilion was purchased and erected (see photo). Also, AMP specialists recommended and assisted him to develop his own trademark. With the support of APK-Inform, an AMP subcontractor, several variants of the logo “Dary Adyrova” have been created and the process of trademark development and recognition has begun.

In order to most effectively use the billboard and merchandizing pavilion method, there must be a favorable, accessible location, which includes sufficient display capabilities and parking for cars as well as a specialized staff. The following are the main reasons cited by the farmer for using billboards and a merchandizing pavilion:

- More effective use of the farmers time for marketing, and in searching out new clients;
- A significant decrease in transportation and distribution expenses;
- It is possible to increase production volumes as less time is spent on marketing;
- Helps build a brand image for the farm;
- Improves commercial capabilities and capital growth.

As the farmer gathers experience and accumulates capital, there is an opportunity to reorganize the roadside merchandizing pavilion into a full-scale roadside market stand. At a full-scale roadside market stand, several farmers can cooperate to sell commodities under a common distribution point and trademark, dividing the profits among themselves. Also, they can buy produce from other farms and resell them under their own brand. These roadside market stands can function the whole year, using stored produce to sell in the off-season. Also, as the concept develops the markets can sell imported and other products related to the fresh fruit and vegetable sector.

As a result of the cooperation between AMP and “Sonyachna Dolyna”, the farm significantly increased profits to 150,000 UAH, up 32,000 UAH for the 2004 season, over the 2003 season. Also, it allowed the farmer to reduce transportation expenses by 20%. According to Vyacheslav Adyrov, 100% of the farms produce has been sold as a result of the pavilion and AMP’s help. Presently, there are no stored commodities on his farm and spoilage is zero, a big improvement over the previous year. A portion of the

farms commodities were sold to supermarkets, but a large portion of the remaining harvest has been sold directly from the field using the roadside stand and sales channels suggested by AMP specialists. Also, the farmer has achieved higher prices by cutting out sales to intermediaries.

Additionally, the farmer became aware of the possibility to sell his commodities via new wholesale channels. In the future, the farmer is considering the possibility of working jointly with neighboring farms to create a roadside farmers market stand. In this market, vegetables having different harvest times will be sold and it will also be possible to purchase fruits and vegetables from other farms and sell the commodities under their own trademark as they develop and become better known. “Sonyachna Dolyna” and the AMP project will continue to work closely together to continue the farm’s growth.

Quotation: “Before, there was no market information. In our first ten years we sometimes achieved small profits, but often it was zero. I am thankful that we met AMP. For the first time we have begun to work with professional experts.”

The Agricultural Marketing Project (AMP) and CNFA’s Farmer to Farmer Program in Ukraine works with rural cooperative Sviatylyvka to improve profits and distribution channels for its cucumbers.

Through technical assistance and a grant, the cooperative was able to achieve increased production and contracted sales for over 100 tons of cucumbers in 2004, up from 30 tons in 2003.



On photo: Agricultural Marketing Project members present a sorting machine to the Executive Director of Sviatylyvka cooperative, Tetiana Strashnenko

Currently, the fruit and vegetable sector in Ukraine is comprised mainly of small plot farmers who depend on marketing their produce, including cucumbers in the fresh, local markets. Due to inefficiencies and the lack of funds, many of these small farmers face a constant uphill battle to make ends meet. With support from AMP and CNFA, USAID funded agricultural initiatives,

a great number of these farmers have received technical, organizational, and marketing assistance. Some have received financial assistance as well.

In order to increase the marketing power of Ukrainian small farmers, AMP has been actively working to create new and develop existing cooperatives of small growers. One such cooperative in the village of Sviatylyvka, Poltava Oblast has successfully worked with the project to increase incomes and form contracts with vegetable processors. This cooperative was originally formed with the assistance of CNFA and a viable partnership was developed with AMP to continue training of its members to be self sustaining in the future and to ensure the cooperative's growth and productivity.

AMP's cooperative development, along with agribusiness and marketing specialists, have worked closely with the Sviatylyvka cooperative to build a leadership structure and board of directors, develop business and marketing plans, and hire an accountant as well as institute a financial system. Also, in accordance with the Project's overall mission, the specialists have worked closely with the cooperative members and management to cultivate relationships between the cooperative and potential buyers throughout the region and oblast to create and implement supply contracts, explore new potential markets and products, and create planting and harvest plans to fulfill these contracts and meet market needs.

Additionally, AMP provides ongoing training and monitoring activities to assure the sustainability of the cooperative. As issues and needs are identified, specialists of the Project conduct ongoing project specific trainings to insure that the cooperative members are up to date and can remain competitive in their regional market. During these trainings, new ideas are discussed and instruction is give on certain topics. Also, AMP will monitor closely the progress of the cooperative to help steer it in the right direction and to assure that it continues to meet its financial obligations.

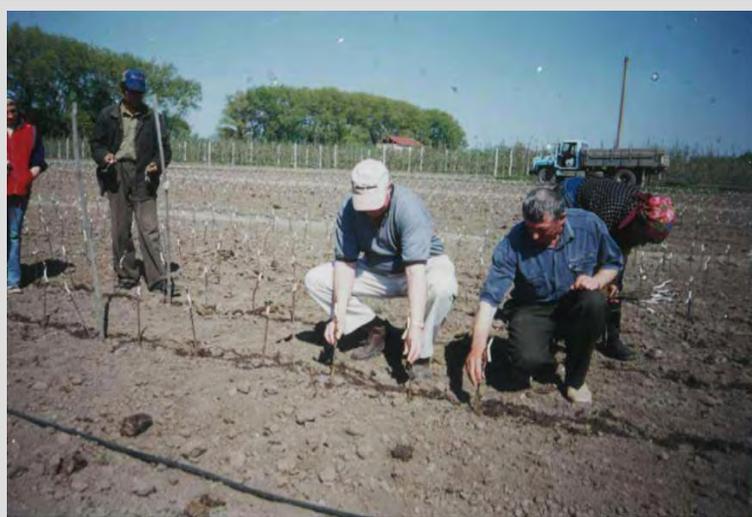
Included in its assistance, AMP awarded its first grant to the Sviatylyvka cooperative in the form of a cucumber sorting machine in August 2004. The value of this grant was \$5,000 with an in-kind contribution from the cooperative of \$7,368. The machine sorts cucumbers according to size, thus allowing the cooperative members to increase efficiency whereas they had previously sorted by hand. It will also allow the cooperative to increase production in the future. Currently, they are shipping cucumbers to a Cherkasy processor at a rate of one truckload every two days. This number is expected to increase next year to 3 truckloads every two days with an increase in production.

The results of CNFA's and AMP's assistance are quite tangible. This year the cooperative has sold 102 tons of cucumbers with an estimated value of over \$20,000 through contracts with processors as opposed to a total of 30 tons for the previous year. With AMP's assistance, the membership of the cooperative has increased this year by 3 farmers to a total of 20. By years end, the cooperative expects to have 30 members. Under contract, each member of the cooperative has been able to lock in higher sales prices and have already received higher profits than the previous year. Also, with the new equipment provided under the AMP grant, the cooperative has been able to charge for sorting cucumbers from non-members from within and without the village. Finally, the cooperative is looking to diversify their production with plans to grow and sell 50 tons of potatoes under favorable prices.

Quotation: “Without these people, nothing would have happened. First came CNFA who explained the basics of western agricultural cooperatives. Then AMP arrived which literally gave hope to us. Now we have an opportunity to produce and supply a better quality product.”

The Agricultural Marketing Project’s (AMP) Cherkassy office collaborates with the Association of Intensive Orchard Growers in Cherkassy Oblast to increase yields, organize market outlets for producer’s apples, and raise farmers’ incomes

Assisted by Agricultural Marketing Project, Association member Mykola Olijnik sold 82 tons of apples to Cherkassy supermarkets. Previously, Mr. Olijnik sold apples only on the local fresh market.



On photo: Robert Lee, AMP Chief of Party planting seedlings with Mykola Olijnik

One aspect of the Agricultural Marketing Project is to improve the marketing chains connecting farmers to the final consumer. At present time, a number of small farmers grow apples in the Cherkassy Oblast. Many are new to this business and by themselves, try hard to overcome obstacles in implementing new intensive technologies for growing and marketing their apples. AMP provides assistance to such farmers in developing

progressive technologies for growing and storing fruit as well as in learning more about marketing techniques.

AMP is supporting the activities of the existing Association of Intensive Orchard Growers in Cherkassy Oblast. This Association has brought together members who are all in the apple growing business. In 2003 the Association had 16 members and this number increased to 26 during 2004. Among the Association members there are amateur orchard growers, farmers, and scientists (such as the Head of the fruit growing faculty of Uman State Agrarian University).

One Association member, Mr. Mykola Olijnik, heads the farm “Apple Orchard”. From its inception, AMP’s Cherkassy office established a close working relationship with this farm. With assistance from AMP/USAID, Mr. Olijnik participated in an educational trip to California where he observed local orchard growing and marketing techniques as demonstrated by California farmers. He has also been studying the experience of

European countries, particularly Holland, and maintains contacts with the fruit growing faculty of Uman State Agrarian University. In Cherkassy Oblast, Mr. Olijnik became a leader in implementing intensive technologies of apple growing and disseminating the best accomplishments of other countries. He has been a strong supporter of AMP's work and is a leader in the Orchard Industry of Ukraine.

Currently, Mr. Olijnik with the assistance of his family and hired labor, maintain orchard and seedling production on 5.25 ha. Also, he constructed a cold storage facility on the farm that permits him to hold 100 tons for late season and winter sale. The basic apple varieties produced are Golden Delicious, Johnny Gold, Red Delicious, Ida Red, and Champion. The yield of Mr. Olijnik's orchard was 50 tons per hectare in 2003, and Mr. Olijnik expects to harvest as much in 2004.

On September 22, AMP held a seminar for orchard growers on Mr. Olijnik's farm entitled, "Modern Technologies of Apple Growing and Marketing" which was attended by guests from Russia and Moldova. Also present were the directors of "UkrVinProm" corporation of Ukraine as well as a post-harvest handling specialist from California. Seminar participants took special interest in Mr. Olijnik's experience.

There were times when Mr. Olijnik sold his apples at the local fresh market. However, AMP helped him to establish working contacts with supermarkets in both Cherkassy and Kiev. In the beginning supermarket managers were suspiciously watching his apples and only took 15 to 20 kilos as a trial batch. Now supermarket purchasing managers are looking to set up working relationships with Mr. Olijnik and propose to develop supply contracts for the future. This relationship with the supermarkets has been very successful for Mr. Olijnik. First, because it saves much time spent to market apples at the local market. Second, he increased his revenue from 1-2 UAH/kg to 4 UAH/kg. Third, the supermarkets discovered that the consumers actually prefer the locally produced apples over the imported product.

AMP is searching for ways to unite efforts of Association members to market their apples in larger batches through wholesale companies under conditions that would be more beneficial for farmers. The Association is planning to take part in AMP Grant Program assistance.

Quotation: "For a long time I had no market for my apples. Today, because of AMP support, I supply apples to all supermarket chains in Cherkassy. My next goal is to penetrate the supermarket chains in Kiev."

A Farmer Gains Profit by Signing Contracts with Supermarket Chains

Mykola Chumak, a Crimean farmer for 14 years, views the year 2004 as his most successful year for crops, profits and business contracts. In October alone he made an additional profit of 20,000 UAH (\$3,775) from cucumber sales. With assistance from the USAID-funded Agricultural Marketing Project, he signed contracts with two major

supermarket chains. The Agricultural Marketing Project (AMP) increases profits and stabilizes supply systems by creating direct linkages through contracts between farmers and retailers. To date, he has sold 17,600 kilograms of produce worth 272,300 UAH (\$51,510).

He fell in love with the fertile land of Crimea in his childhood, first by watching and then helping his parents work their small parcel of land. Chumak, who was a chief engineer of a state farm in Crimea, decided to change tack after Ukraine gained independence. He educated himself in the latest technologies before taking up private vegetable farming on his own.

Initially, he mastered his vegetable growing techniques on a household parcel in the village of Gvardeisk, one of the vegetable growing centers of Crimea. With the advent of land privatization and changes in ownership laws, he decided to lease additional land and utilize a more advanced growing method that included drip irrigation, fertilizers and crop protection. Small-plot vegetable growers sold their produce mostly in open-air markets at that time, since few stores sold vegetables and supermarkets were not yet known here. For the most part, Mykola grew grains as his main staple and tomatoes and cucumbers only as a side business.

His interest in these vegetables proved not in vain when market demand increased for both the fresh and processed varieties. It provided the opportunity to switch mainly to fruit and vegetable production and further increase the success of his enterprise.

By June 2004, Mykola had expanded his vegetable plot to 0.8 hectares of greenhouse, but now faced the challenge of finding a market for his additional produce. The solution came from the USAID-funded AMP, with which he partnered the same year.

Implemented by Land O'Lakes, AMP works to create strong market linkages between farmers, markets and consumers. The project assists producers in establishing contractual relationships between wholesalers and retailers. To ensure that farmers can meet their contractual obligations, they receive AMP assistance in the use of new growing technologies, product diversification and specialization, storage, packaging and marketing. To date AMP has assisted 385 farmers in signing contracts with 112 retailers, including processors, worth 4,300,000 UAH (\$811,000).

Emphasizing his vast greenhouse growing experience, AMP assisted Mykola in arranging contracts with Furchet and Silpo, two of Ukraine's most predominant supermarkets chains. The collaboration allowed Mykola to sell more vegetables at a higher price, and most importantly, to secure a direct outlet for his produce throughout the year.

Mykola decided to expand his production and constructed an additional 0.9 hectares of greenhouses, where he planted more tomatoes and cucumbers, and also peppers and other greens exclusively for sale to exclusively to supermarkets. He also hired four workers to help him with his expanding business. Ever forward-looking, Mykola re-invested additional profits into the construction of a refrigeration unit to preserve his produce in the off-season. According to the farmer, he has already recouped his expenses. He

recently sold his refrigerated cucumbers and tomatoes at a nice profit in a demand-driven market driven by last season's poor yields.

A Wholesaler of Frozen Food Goes Fresh

Oksana Bondariv's'ka, 42, a vegetarian, had always had problems finding fresh quality produce in her district. Although there was a small bazaar right across the street and several small retailers who sold produce off and on at the bus station, the assortment and quality of produce was often inadequate and disappointing.

About a year ago in her neighborhood she discovered Rukavychka (The Mitten), a newly opened supermarket with a fruit and vegetable produce department, which has finally satisfied her dietary needs. "The quality of the fresh produce I get here is always high, and they have a variety of fruits and vegetables. Now, instead of wasting my time searching for one product or another at the bazaar, I always come to Rukavychka and find everything I need," explained Oksana.

The fresh produce section in the Rukavychka supermarket, a wholly owned subsidiary of Lvivkholod, was introduced from a suggestion by the Lviv office of the Agricultural Marketing Project (AMP), which is funded by the U.S. Agency for International Development. This emphasis on product variety has added value to Lvivkholod's stores and made it stand out among competitors.

A desire to develop new marketing channels and new customers helped Lvivkholod to survive the difficult period of transition from a planned economy to a free-market enterprise.

Established in the Soviet era, Lvivkholod was mainly a wholesaler of bulk frozen meat and fish products. Operating in the state-controlled planned economy for more than 50 years, the company never encountered any marketing and distribution problems. All the products were sold to a predetermined group of customers at governmentally established prices. Under these conditions issues of product quality, competitiveness, customer orientation and strategic planning were irrelevant.

In the early 90s, with Ukraine undergoing economy transformation and marketing channels collapsing, Lvivkholod had to establish a new way of doing business or disappear, as many other planned-economy enterprises already had.



On photo: A Rukavychka customer picks fresh produce
Credit: Photo by Oksana Koulakovska

After privatizing the company, Lvivkholod management completely overhauled its ways of doing business and decided to expand from wholesale into retail. Management reorganized its storage facilities in Lviv into a cash-and-carry supermarket and began changing outdated groceries in small-town areas into modern food stores. Being ahead of competition in the local food products market, Lvivkholod successfully transformed its business model and managed to occupy a stable market position in the region. However, as a result of growing purchasing power and increasing investment in the local retail industry, the competition grew stronger from year to year. Many of Lvivkholod's customers now had greater choice as to where to shop and what to buy. The market now demanded the availability of wider product assortments, more shopping convenience and flexible pricing policies.

In 2003, Lvivkholod opened its first Rukavychka supermarket. The same year the company established a close working relationship with the recently opened Lviv office of the Agricultural Marketing Project. Project specialists consulted the company on modern wholesale and retail trade practices and came up with the suggestion for setting up a fruit and vegetable produce department in the company to better meet customers' needs. AMP also assisted the company in developing its marketing and strategic plans. Lvivkholod's management decided to implement the suggested idea and hired three employees to set up a fruit and vegetable produce department.

As a result, in December 2003 the company placed fruit and vegetable displays in its Rukavychka supermarket. Subsequently, Lvivkholod opened five more stores with fresh produce sections. Every week these modern supermarkets sell about 2 tons of fruit and vegetable produce. Up to 17 farmers supported by AMP supply directly 20% to 80% of the produce volume depending on the season. As it turns out, not only Lvivkholod but farmers too have benefited from the companies new strategy.

Fresh Look for Vegetable Retail Trade in Ukraine

On August 11th, 2005 consumers of some Cherkasy supermarkets were impressed by the new look of the fruit and vegetable displays. Colorful vertical layouts attracted attention to fresh produce grown by Cherkasy agricultural producers.

The vertical layout helps consumers find the products of interest more rapidly, and reduces the need to back track. In addition new produce items were added to the display to expand the assortment. Signs with labels were quite helpful in introducing these new products to the consumers; and, included as well information on product origin. In some supermarkets fruits and vegetables were sorted and packaged, a rather new practice for regional retail trade in Ukraine.

During the six months preceding this event AMP had invited American consultants to assist in conducting training with respect to improving in market displays and layouts. The contest showed that produce managers applied lessons and knowledge learned successfully. As a result of the contest, sales of fruits and vegetables increased 8-10% during the contest; and, maintained this level throughout the entire peak season (August-September). In addition, thanks to the contest participating Cherkasy supermarkets established relationships with new farmers and suppliers and extended the assortment of locally produced vegetables.



Before: Cherkasy supermarkets. Unexciting shelf displays of fruits and vegetables in the produce department.



After: Colorful produce displays demonstrate locally grown fruits and vegetables, as well as imported fruits, during Supermarket Display Contest. The contest was organized by the Agricultural Marketing Project (AMP) in Ukraine. The contest realized increased sales of fruits and vegetables by 8-10%.

Effective Marketing Makes a Difference

A trademark for fruits and vegetables is an old and new practice at the same time. Produce brand names have been in use for dozens of years, they are often developed out of the environment or from the region where the commodity being branded is produced.

For example, Americans know *Florida oranges*, *California strawberries*, and *Idaho potatoes*. In Ukraine, *Crimean table grapes* have tremendous popularity. Even the shape of the Crimean peninsula patterns a grape bunch. The specialists of the Agricultural Marketing Project (AMP) used this similarity to develop a brand/label for newly registered Agro-Yukos Ltd.



Fragment of new trademark of Agro-Yukos Ltd

The three founders of the enterprise decided to switch gradually from grain production to vineyard management. But, they discovered it is not enough to cultivate the available 5 hectares of table grape varieties: the produce must finally be effectively marketed. The company continues to maintain 100 ha of grain crops; but, as it moves toward fruit management it also has 3 ha of peach orchard and 0.4 ha of blackberry nursery. Despite the lack of time available to harvest during the hot harvest season, regional AMP specialists persuaded Agro-Yukos Ltd to apply new packing and marketing practices. Usually buyers took the table grapes out of field in banana boxes, but now they receive the produce already packed in cardboard boxes with the company brand/label. Nikolay Choropita, the manager of Agro-Yukos Ltd was able to save money on the manufacture of the boxes, because he provided a local box manufacturer with the needed box sample and they produced it locally at a lower cost. Originally the buyers paid \$2/kg for the grapes in 5 kilo banana boxes. Now they pay the same price for the grapes in 6 kilo specialized box. The difference is that the grapes in the banana boxes had high losses, upwards of 50%, and in the specialized boxes the losses were reduced to about 5%. Since the producer was responsible for the losses these new boxes helped his profits substantially.

Initially a hobby, table grape production has turned out to be a profitable business. Table grape yields are about 25 tons/ha; and grain crop yields are about 1.2 tons/ha. When comparing the costs of table grape production with grain production it has been estimated that table grape production is about 1000 times more profitable: \$ 50,000/ha for grape and \$ 30-40/ha for grain crops. And, table grape vineyards create many additional employment opportunities. There are 7 full-time and up to 30 seasonal employees working with Agro-Yukos Ltd.

The success of Agro-Yukos Ltd sounds fantastic: but, in reality years of hard work are in the background. The founders treat table grape vineyard cultivation as a serious business. They have a table grape nursery with about 37 table grape varieties. To date only 4 of these varieties have fully adapted to the local climatic conditions of Crimea; therefore, the seedlings used are from these best-yielding varieties. Normally table grape canes achieve their production peak in the third to fifth year of vegetation. This year the vineyard is in its third year and the company expects a good harvest in spite of the January frosts which injured many young shoots and killed some fruiting buds.



On photo: N. Choropita in his vineyard

Nature showed its true character this year; and, Nikolay Choropita, and his colleagues, learned the necessity to diversify or take other steps to reduce risks of crop failure. To avoid losing a grape harvest totally two other prominent table grape producers in the region plan to join Agro-Yukos Ltd and form an unofficial group (budding cooperative) of table grape growers. Being a substantial distance from one another the three vineyards are under somewhat different climatic conditions and this permits less

risk from negative weather conditions. In this way the producers will be able to more likely ensure a crop, and when production is good they will be able to form larger shipments that are more attractive to buyers. Also, the group has plans to construct 100 tons cold storage and with this they will be able to keep the table grapes longer and sell them at a better time when prices are higher.

Even though an Agronomist, Nikolay Choropita has proved to be an astute strategist with deep intuition and a good business-oriented mind. He understood the importance of having a brand/ label which would help him advertise his product. The popularity of Agro-Yukos Ltd table grapes was indirectly proved when it was observed that buyers selling table grapes in Yalta used the Agro-Yukos Ltd boxes, with brand/label, to sell imported table grapes when the Agro-Yukos Ltd supply ran out. Based on this observation Agro-Yukos Ltd will be working hard to register their trademark and then aggressively directly enter the Crimean South Coast market, where table grape prices average \$5/kg during the tourist season. This will increase the margin substantially for Agro-Yukos Ltd. The marketing approaches provided by AMP helped increase profitability substantially for Agro-Yukos.

AMP Conducts Supermarket Contest in Ukraine

Being at the threshold of the World Trade Organization, Ukraine witnesses many positive changes in its trade infrastructure. In particular, retail chains are developing like never before. The statistical data show that there are 13 national supermarket chains operating in the country; but, the total number is likely much greater because some international chains started only recently entering the Ukrainian market.



Photo Comparison: Fruit and Vegetable display at Furshet supermarket (Simferopol, AR Crimea) before the contest (on the left) and after (the right photo)

But, according to the results of surveys conducted by the Agricultural Marketing Project (AMP), people still prefer to buy fruits and vegetables at bazaars rather than in supermarkets. The drawbacks to supermarket produce are numerous: higher prices, sometimes poor quality of products, predominantly imported produce for sale; and, often unattractive appearance of the produce sections of the market. This unattractiveness mostly results from a lack of understanding among supermarket produce managers about how the produce section should look.

On August 11th, 2005 consumers of several Cherkasy supermarkets were impressed by the new look of the fruit and vegetable displays. Colorful vertical layouts attracted attention to fresh produce grown by Cherkasy agricultural producers. The vertical layout helped consumers find the products of interest more rapidly, and reduced the need to back track. In addition new produce items were added to the display to expand the assortment. Signs with labels were quite helpful in introducing these new products to consumers; and, included as well information on product origin. In some supermarkets fruits and vegetables were sorted and packaged, a rather new practice for the regional retail trade in Ukraine. Six months prior to this event AMP had invited American consultants to assist in conducting training with respect to improving market displays and layouts. The contest showed that produce managers applied lessons and knowledge learned successfully. As a result of the contest, sales of fruits and vegetables increased 8-10% during the contest; and, maintained this level throughout the entire peak season (August- September) as long as the produce managers maintained their displays properly. In addition, thanks to the contest, participating Cherkasy supermarkets established relationships with new farmers and suppliers and extended the assortment of locally produced vegetables.

Witnessing a positive feedback of the supermarket contest in Cherkasy, the marketing team of AMP decided to conduct a similar event in Crimea. As known, Crimean towns are large consumer centers in summer due to the influx of tourists'. Thus, the retail trade has been developing fast. Still, many Russian tourists complain about poor service in Crimean supermarkets. To help retail chains fulfill their potential to the fullest AMP decided to conduct a contest for the best produce display in three Crimean cities – Simferopol, Yalta, and Sevastopol.

From September 11th to 13th 2006 the unique contest, “the best produce display in Crimean supermarkets” was conducted for the first time in AR Crimea. Specialists of AMP prepared and conducted the event; several weeks before the contest they trained the managers of produce sections in supermarkets – participants of the contest. AMP specialists shared detailed information about methods to improve produce displays, to make them appealing, and to stimulate produce sales. They also presented modern management practices of the produce sections in supermarkets. In total, seven supermarkets of various retail chains participated in the contest.

The displays were evaluated against 13 basic criteria. The managers paid main attention to vegetables and fruits produced by local farmers. The produce commodities were fresh, marked with readable price signs, and contained full information about their origin. Such factors as politeness and efficiency of the supermarket staff, creativity of the display, eye appeal, etc. were also evaluated. It is interesting to mention that absolutely all supermarkets – the participants of the contest - treated this event very seriously. And, as a result, each supermarket recorded sales increases in the produce section. On average, sales growth was 11 to 12% during the supermarket contest; however, the contest winners talk about 15-20% sales growth.

The AMP marketing team hopes, because sales were increased, that the high standards attained during the contest for the produce section will continue to be maintained in all supermarkets – participants of the contest – into the future. And, their competitors will have a chance to learn new things too. The fruit and vegetable section of a supermarket has a very great potential to bring profit for the supermarket owners and to satisfy consumers in Ukraine if properly maintained and managed.

Better Storage Yields Better Profits

Ukrainians are use to an excessive quantity of vegetables in season and a lack of produce in the off season. As a result, vegetables that are sold during the harvest season for a penny (a very low price) are often very expensive in the winter, and of relatively lower quality. The price fluctuations are especially striking during the winter-spring period when imported produce (cucumbers, tomatoes, peppers, apples, and potatoes) are supplied to markets. During the mentioned time period prices for fruits and vegetables are quite high. For example, tomatoes that are less than \$0.20/kg during harvest can be more than \$3/kg in the winter. Starting from May, the period of intensive trade begins. Sales volumes increase during



On photo: Mikhail Dzhorkashvili

During the mentioned time period prices for fruits and vegetables are quite high. For example, tomatoes that are less than \$0.20/kg during harvest can be more than \$3/kg in the winter. Starting from May, the period of intensive trade begins. Sales volumes increase during

the summer and reach a seasonal peak during the period August-October. Sales volumes start declining in November/December. In this situation, the utilization of modern, specially-equipped storage with cooling equipment can be one solution for trying to extend the season and gain higher prices and revenues for farmers of Ukraine.

In order to extend the produce sales season, and following suggestions of the specialists of the Agricultural Marketing Project (AMP), the founders of the service cooperative "Fruits of Crimea" decided to purchase premises and to construct a cold storage facility able to handle 150 tons of produce.

The cooperative was formed in March, 2005 using the MRIYA private enterprise as its base. The objective of the cooperative is to provide cooperative members with a place to store harvested produce so that they can sell it later when prices rise. Mr. Mikhail Dzhorkashvili manages both the private enterprise and the cooperative.

Given the opportunity to obtain a grant from AMP, the cooperative submitted the required documents and was selected to be a recipient of a grant. The total grant sum is UAH 127,000 (approximately \$ 25,000). The match from the cooperative members was to be at least equal to the grant from AMP, and the members provided UAH 126,300. The cold storage grant, consisting of two chambers, was launched October 4, 2005. According to plans, 50 tons of table beets were put in one chamber and 100 tons of cabbage in the other chamber.

The produce was mainly sold to resorts and through PRIVOZ wholesale market in Simferopol. By using the produce storage facility, additional profits amounted to nearly 100,000 UAH (around \$20,000). This was compared against the possible profit that would have been realized if the produce had been kept in ordinary storage non-refrigerated storage. Usually 35%-40% of the harvested commodities are lost under ordinary storage conditions. Respectively, each cooperative member got his share of profit (around 33,000 UAH). Four full-time jobs were created to maintain the storage facility in proper condition, thus, providing additional indirect evidence that the storage idea was successful because long-term jobs were created in addition to the profits generated for members.

The cooperative planned to start selling stored produce in March 2006, but, severe winter frosts shifted the terms of storage opening. Shipping of table beet and cabbage started mid-April. Practically all stored produce was sold out by the end of April.

After experiencing actual profitability from using the vegetable storage facility, the manager, Mr. Mikhail Dzhorkashvili, planned to build additional chambers in 2006. In fact, the cooperative is finishing the construction of two more chambers at 100 tons each. The chambers will be of the same type as the chambers assembled last year using AMP grant support. Steel construction and sandwich panels have been used to construct the storage.

AMP assistance has not been limited to grant support. AMP invited Mr. Yuri Calin, a Cold Storage Specialist from Moldova, to consult with and assist project clients in

Ukraine. The specialist advised the cooperative management on many technical aspects. His advice helped save materials and ensure the assembly of high-quality chambers at the earliest possible date for least cost. The cooperative established a partnership with SVP firm (Lviv), which sprays polyurethane on cold chamber walls. in order to significantly reduce the construction cost. Finally, with assistance from AMP specialists, produce supplies to several firms were also set up.

Each of three founders of the cooperative has experienced positive results of their joint efforts. AMP specialists assisted with project implementation, and they continue cooperating with the farmers. They wish the cooperative to succeed in their future activities. The AMP specialists are sure that the members of “Fruits of Crimea” cooperative are likely to see more opportunities and perspectives provided by long-period storage of quality produce. They see the opportunity for more members to join or associate with the cooperative. As the cooperative meets the challenges it faces it will help Crimean producers to work more effectively on the produce markets of Crimea and throughout Ukraine. This project has been a true success.

Improved Vision and Expansion for Omelyanenko Family Wholesale Business



On photo: Mr. Omelyanenko and his wife in the private F&V shop.

Mr. Yuriy Omelyanenko and wife Svetlana managed 3 mobile fruit and vegetable sales outlets at a city market in a large residential area of Poltava. They employed three sales people at their outlets, and he drove his minibus to various farming areas of Southern Ukraine where he obtained an assortment of fruits and vegetables demanded in Poltava. He acted as a middleman between the farmers of Southern Ukraine and consumers on the Poltava markets. Svetlana controlled all accounting documentation of the business; and, she developed new trading

ideas for their emerging business. Svetlana has had substantial experience in fruit and vegetable marketing due to her several years of experience as produce manager of the retail chain owned by *Polagroservice* Company; and her practical experience since she and Yuriy established their small business. The couple considered their business stable and was not planning changes. One sales outlet used to realize gross profits of 600-700 UAH (\$US 120-140)/day in peak season. And, this was a reasonable living for the couple.

In addition to the trade at the city market, Yuriy tried to sell small quantities of produce through other sales channels in Poltava, in particular through the *Polagroservice* Company. *Polagroservice* is a prominent partner of the Agricultural Marketing Project (AMP) in Poltava. Through this connection AMP specialists learned of the Omelyanenko's and since the summer of 2004 they have become an AMP client. Since becoming a client Yuriy has actively participated in AMP seminars and round tables dedicated to fresh produce market development; and, he has taken advantage of consultations provided by AMP specialists. During AMP seminars and workshops Yuriy often spoke, as a small wholesaler, to local producers informing them about the assortment, volumes and quality of produce he was ready to purchase. Soon he was able to increase significantly purchase volumes of locally produced fruits and vegetables from AMP farmer clients. Also, because AMP has offices in Odesa and Crimea the Omelyanenko's have been able to develop more rational buying practices and arrangements with AMP farmers for produce they continue to obtain from farmers in Southern Ukraine. Finally, the market information published in AMP's Agro-review journal has been successfully utilized by the Omelyanenko's because it has helped them identify good farmer suppliers and know what prices to offer.

Seeing the positive potential of Omelyanenko's' family wholesale business, AMP took interest in helping to develop this budding wholesale firm. AMP specialists worked to support negotiations of the Omelyanenko's with two other retail outlets – *Serviceproduct* grocery chain; and, the *Furshet* chain of supermarkets Poltava store (opened their first store in Poltava last fall). After first opening *Furshet Poltava* received all its produce from Kyiv, and consequently the quality was only satisfactory, not good. At the recommendation of AMP specialists *Furshet Poltava* signed an agreement with Mr. Omelyanenko for a supply of locally grown fruits and vegetables. In fact, Yuriy is very likely the only supplier who “risky” signing a contract with *Furshet Poltava* for payment on a deferred basis – because most agricultural producers in Poltava oblast are not willing to work using bank transfers.

Through their working relationship with AMP Yuriy and Svetlana Omelyanenko have increased the number of sales outlets to six (6) at the city market where they started; and, are constructing a small 30m² storage facility to preserve and extend the shelf life of their produce. In addition, the Omelyanenko's opened two (2) more sales outlets at another residential city market, one of which is a regular shop of 30m² and able to offer produce sales year-round. In total, employment has gone from 3 to 10 persons, not including the Omelyanenko's, and includes two (2) drivers who help Yuriy collect produce from AMP farmers in the Southern regions of Ukraine. To help insure effective growth of his business he has taken advice and purchased a refrigerated mini-bus which will help reduce losses of highly perishable product during transportation and extend the shelf life of the product once placed on his or his customers display counters. Taking into account the product supplied to the chains - *Furshet*, *Polagraservice*, *Service product*- and, his own outlets the Omelyanenko's gross profit from the business has grown 400%/week at peak season (conservatively estimated) in one and a half years time. This has been accomplished together with help from AMP.

When talking about business ideas and plans for the future, the Omelyanenko's are determined to continue to expand and optimize their wholesale business, and based on what they have learned from AMP seminars and workshops dedicated to modern marketing practices, as well as the one-on-one advice received from AMP specialists Svetlana is contemplating the idea of creating a distribution center with cold storage in a city suburb, so that they can evolve to a professional wholesaler able to provide full services to retailers in Poltava.

It has been a great pleasure for AMP specialists to work with this family business and to see it grow from a typical farmer to customer middleman business to a true wholesaler trader providing services to the customer. It is this kind of small business that AMP is anxious to assist because they represent the future of the Ukrainian wholesale trade.

Some Find Farm Business Model Best Tool for Success

"Failing to plan is planning to fail" is a popular saying. Unfortunately, many tradition-bound farmers in Ukraine have never paid much attention to planning. In the past, they sold what grew and stored well. Nowadays, the modern market demands a broader variety of products, including high-quality fruit and vegetables, some of which may require more sophisticated handling to get to market.

Commercial agriculture follows the same entrepreneurial laws as any other business. To teach farmers how to maximize profit, the USAID-supported Agricultural Marketing Project (AMP) in Ukraine introduced the Farm Business Model, a tool which helps farmers make better management and planning decisions based on analysis of current revenues and expenditure.



AMP specialists demonstrate Farm Business Model to Serhiy Panchenko, (right), a table grape grower from Odesa Oblast
Photo Credit: Dmytro Chernyak

"Each agricultural producer keeps track of his farm's performance (production and sales), but not everyone is able to calculate economic data professionally," explained Vitaliy Bilan, of BILAN, a private enterprise in Odesa oblast. "For several years we used dozens of methods just for vegetable crops. In 2004, we started to use the AMP Farm Business Model, which allowed us to choose the optimal sales channels for each crop and to produce more cost-efficient vegetables. As a result, the profitability of our farm increased by 5 percent.

The Farm Business Model allows agricultural producers to organize revenues and expenses in a clear, unified

format, and de-sign sales options through different marketing channels. Based on the data they gather, farmers can make decisions on expanding, decreasing or diversifying their crops. They can also utilize the model when supplying raw materials to food processing enterprises and negotiating prices.

The AMP Farm Business Model is an exclusive tool as it provides those in the agricultural market with necessary start-up (benchmark) information. AMP client farmers involved in the process, submit budget information that is compiled in a database and updated regularly. Thus, the business model can also serve as an industry overview, a production plan and/or marketing plan. It also helps farmers to compare their results with those of others, giving them a basis for judging how well they perform. Having a useful decision-making tool, AMP clients can also receive consultations from industry experts. All these services are presented in a user-friendly (Excel) format, so even a novice computer user can feel comfortable.

Most farmers also find that they have an easier time obtaining bank loans because their business data is clearly organized and easily understandable, and they receive their financing after up to three weeks rather than after the usual two-three month processing period. Vasyly Voloshyn, a farmer in Zakarpattia oblast, was surprised how smoothly everything went when he used the AMP business model approach. "I applied for a bank loan to purchase an irrigation system for my cucumber production, and was delighted to have an answer in a week," explained Voloshyn.

Although it is predominantly for farmers, food processors, credit institutions, researchers and policy makers have also found the Farm Business Model useful in their work.

Agrodiv Cooperative – AMP Aids Farmers' Commitment to Succeed Together

Zhovkva is one of the regions in Lviv oblast where the fertile soil and weather conditions are quite favorable for growing a variety of fruit and vegetable crops. Historically, many local small-scale farms specialized in producing these crops. Although these fruit and vegetable growers are successful producers, they increasingly face marketing problems. In January 2004, nine farmers decided to form a cooperative for the purpose of improving product marketing. They saw quick returns in the first marketing season – the cooperative's gross revenues amounted to nearly USD \$145,000 in 2004.

The cooperative members first thought about forming a cooperative six years ago, when they participated in *Farmer to Farmer* and the *Western Ukraine Initiative* programs implemented in Ukraine by the American cooperative Land O'Lakes, Inc. The farmers had a unique opportunity to witness benefits from cooperation and its economic impact on their study tours to Hungary and Poland. They observed how Polish and Hungarian farmer cooperative members significantly improved their economic performance by making joint purchases of input supplies, using custom services, and, most importantly, taking advantage of selling their crops on more favorable terms through their cooperative organizations. The Ukrainian farmers learned that through farmer-owned cooperatives

their Eastern European colleagues could reduce their procurement costs by up to 20 percent. Additionally, working with wholesale buyers and forming larger crop shipments helped Polish and Hungarian farmers to compete effectively in their markets and save significant amounts on transportation costs. After these study tours, six farmers developed an informal initiative group to work out joint solutions to their day-to-day problems and gain benefits from the mutual custom hire assistance and marketing support.

However, ever-changing markets created new requirements. Switching from working with individual producers, most buyers of fruit and vegetable crops looked for preferred suppliers - legal entities able to meet specific contract terms and be fully responsible for many important marketing functions. This would simplify buyers' accounting and payment operations since fewer contracts required less effort and time on their part. To take advantage of this market trend, the farmers made a crucial decision to form and register as an agricultural service cooperative with assistance from Agricultural Marketing Project (AMP) specialists. AMP's Cooperative Development Specialist and the Legal Advisor helped the farmers to prepare all the necessary registration and charter documents.

They also explained the importance of hiring qualified cooperative employees and assigning clear responsibilities. Furthermore, farmers were assisted in setting up cooperative accounting and tax payment procedures. As a result, on February 6, 2004, the agricultural service cooperative *Agrodivir* was registered. By that time three more Zhovkva raion farms had joined the original six members. Currently, the *Agrodivir* members farm a total of 255 hectares of lands including 12 hectares of orchards, but there's plenty of room for expansion thanks to new marketing opportunities. The members of *Agrodivir* cooperative reaped the benefits of cooperation during the very first year of their cooperation. The coop managed to develop contract relationships with several processing plants. For example, *Agrodivir* was successful in signing a supply contract with the *Vattyus* flash freezing processor for 100 tons of potato, 100 tons of carrot, 225 tons of bulb onion, 25 tons of white cabbage and 5 tons of Brussels sprouts. The cooperative profitably met all the contract obligations. In 2004, *Agrodivir* sold members' crops through several marketing channels: 79.9 percent went to state budget-funded institutions (military bases, hospitals and schools), 16.7 percent to processors, 3.2 percent to wholesalers, and 0.2 percent was sold in retail fresh markets. This year, the cooperative members plan on fulfilling a major contract with *Intermarket Wholesale Company* and other contracts that are now being finalized.

The clear vision and new approaches the cooperative had for developing their business allowed cooperative members to win a grant from the Agricultural Marketing Project Grant Program. The grant program funded the purchase of fruit and vegetable drying equipment for a total of USD \$16,000. The grant covers the critical investment outlay required for specialized drying equipment, and the cooperative provided a substantial contribution as match for facilities and infrastructure necessary to support the project.



Photo: Agrodvir's drying equipment



Photo: Agrodvir's Chairman Petro Fedyna demonstrating cooperative's products

With the new equipment the cooperative plans to produce dried carrot, cabbage, red beets, fresh herbs, onions, apples and berries. It should be noted that the new equipment will permit the cooperative to process fruits and vegetables that do not meet the highest standards - quality, size, etc. - of the fresh market and would otherwise go to waste. The coop members will produce some mushrooms, apples and berries and the rest of the raw material assortment will be purchased from local producers. By the end of the 2005 marketing season, the cooperative members forecast additional profits of up to USD \$94,300 from their drying facility. The cooperative's business expansion prompted a number of local producers to diversify their marketing channels and earn additional profits by selling their produce to the cooperative.

These outstanding results from their joint work have encouraged the cooperative members to make additional new plans for the future. By committing to high quality standards, *Agrodvir* cooperative plans to develop its own brand for marketing both

fresh and dried produce to a diversified group of retail and wholesale buyers.

Lyudmyla Cooperative – AMP Helps Show Cooperatives Can Work for Farmers

The name “Lyudmyla” can be translated from Ukrainian to one who is “dear to people.” Lyudmila Sobol from Khudyaki village, Cherkasy oblast, mirrors the name fully. Her kindness and sympathy is complemented by a strong personality, which helped her to accomplish success as the head of an agricultural service cooperative named after her. Lyudmila became involved in agribusiness in 1995 after more than 20 years of work as an economist in a state enterprise.

Lyudmyla began with land leasing, but decided to switch to growing and selling vegetables, first independently, and then by engaging her fellow villagers. In 2003, Lyudmyla started an agricultural service cooperative, which united 13 villagers who grew vegetables in her village, 10 of which were women. Soon she expanded her own vegetable production to 10 hectares with cooperative members cultivating another 24 hectares. While she considered herself a successful producer, her produce sold at very

low prices during the summer due to excessive vegetable supplies at that time. She knew she could do much better during the off-season when vegetable prices rose. The problem was ensuring the quality.



Photo: Lyudmyla Sobol, the Chief of LYUDMILA cooperative speaks with Mr. Vasetskiy, the Coordinator of AMP's Cherkasy Office

The solution came after she took part in a USAID/AMP-supported study tour to Poland. As a cooperative leader and client of the AMP, Mrs. Sobol visited small- and medium-sized private farms in Poland, where she saw farmers actively using storage facilities for packing and storing perishable produce. Polish farmers told her that this approach allowed them to sell fruits and vegetables to supermarkets at higher prices than to local street markets.

Lyudmyla then proposed to her partners that they should develop storage facilities for their business. Together they prepared a business plan and submitted it for consideration by the AMP grant program, which agreed to provide about 21% of the expenses required to build the vegetable storage facility. The rest was covered by the “Lyudmyla” cooperative group.

In operation since the fall of 2005, the storage facility keeps a full range of traditional vegetables, as well as pickled cucumbers and tomatoes, most of which are sold at retail through supermarkets, mainly in the City of Cherkasy.

The storage facility provides the cooperative with a most important advantage – it preserves vegetable quality longer which allows cooperative members to sell their produce in the off season and receive a much better price. The cooperative can also meet supermarket requirements better than other produce suppliers, by being able to provide a more stable and regular supply of high-quality vegetables year round.

The high efficiency of new vegetable production technologies gives cooperative members’ confidence in the future success of their business development. The restless energy of the cooperative leader, Mrs. Lyudmyla Sobol, helps provide financial security to the 16 women of the village who work at “Lyudmyla” as cooperative members and full-time employees.

While retaining a reputation as an “Iron Lady” in her work, in her everyday life she embodies the kindness and compassion reflected in her name. Mrs. Sobol is actively involved in the public life of the village. She supports the local kindergarten, where she fully provides the vegetables the children require. Also, she donates produce to the local school and hospital, as well as takes care of repairs for all three premises. But that’s not

all; Mrs. Sobol also sponsors the amateur talent group in the village and pays the wages of the choral director. Mother of two children, in 1993 she adopted a child that she continues to care for.

Market Information (MI) – AMP Helps Farmers Use MI to Sell Their Products



Photo: Volodymyr Zaitsev, the owner of «Chipolino» TM, Odesa, checks the AMP website three times per day

About a year ago, Yaroslav Mayovets, a farmer from western Ukraine, faced a difficult marketing dilemma. He had a great carrot harvest, but so had many of the farmers in his region. The choices were either to sell it for a very low price in Lviv oblast, or to look for an alternative strategy.

He found out that there was a way to sell produce through the marketing information system developed by the Agricultural Marketing Program (AMP), a project supported by the United States Agency for International Development (USAID).

Though skeptical, he called the Lviv regional office and offered his carrots for sale. To his surprise, in a few days he received a few phone calls, including one from Mohyliv-Podilsky cannery in Vinnitsa oblast. This processor urgently needed large quantities of carrots. After sampling Yaroslav's produce, the two sides signed a contract.

So while other farmers from the same region, who did not use the marketing information system were forced to throw away their carrots or use them as cattle feed, making nothing, Yaroslav sold his 65 tons at the price of 0.5 UAH per kilo, which gave him 32,500 UAH in revenue.

According to an AMP survey, 85 percent of farmers who placed offers and bids received phone calls from interested buyers, and more than 50 percent of the farmers sold their produce. Farm produce sales via this system for the six-month period of the last crop season were estimated at more than \$5.7 million, making a real contribution to many farmers and their families.

When the USAID-supported AMP came up with the idea for creating an agricultural marketing information web-site, many professionals were skeptical. They did not understand how useful it would be for small and medium-size farmers, many of whom have neither computers nor Internet access.

“Indeed, many farmers don't have Internet access, but most processors and wholesalers do,” said Andriy Yarmak, AMP senior market information specialist. “So by reaching

the latter group, we still could effectively promote sales of farmers' fruits and vegetables via the Internet."

The AMP mechanism is pretty simple. A farmer calls a regional project operator and places a bid by phone. The operator puts it on the website, indicating not only the size and price of the bid, but also the farmer's contact information. Processors and wholesalers review the information online and get in touch with farmers. After the price and product quality issues are agreed upon, a contract is signed.

In the first weeks after its launch, the website only had about 10 visitors per day. Now, it has become the number one food and agricultural information source in Ukraine. Today www.lol.org.ua is well-known to all fruit and vegetable agribusinesses in Ukraine. About 1,000 to 1,200 companies utilize its frequently updated exclusive information on a daily basis generating about 23,000 visits and 170,000 hits per month.

Farmers are starved for credit – AMP helps make loans work for farmers

Have you ever applied for a bank loan? If not, you probably will soon. Loans are becoming a common part of life in Ukraine and an enormous help to most businesses. A farmer's business is no exception.

But, it's difficult for farmers to obtain loans. Why is this? The main reason is that land cannot be bought and sold; it is prohibited to sell agricultural lands until January 1st, 2007.

Because of this situation, banks do not yet accept land as collateral. And, other than land, farmers own little else to offer as collateral. Still, there are other factors. First of all, many banks consider agricultural loans an unattractive undertaking because of negative experiences in the late 90's and early 2000's. In general, the Ukrainian agricultural business is still perceived as being risky and unreliable. Additionally, loan officers and specialists usually have little experience and/or knowledge in this industry and do not really understand the costs and returns from different agricultural enterprises. Agricultural insurance is also undeveloped in Ukraine and as a result, there is a greater risk for farmers to lose their harvests and fail to repay loans. Farmers themselves find the process of obtaining a loan quite inconvenient. Besides the large list of documents needed for a loan application, it is common for the evaluation and decision-making processes to take a long period of time.

A majority of private family farmers manage smaller farms and usually need only moderate amounts of loan funds. These smaller farms are often remote and scattered throughout the oblasts; hence, banks accrue significant transport expenses when conducting their analysis and further auditing of the business.



Photo: Oleg Stoyanov, the AMP Loan Specialist, works with a new farmer client

The situation tends to appear somewhat desperate and agricultural producers generally feel they have only themselves to rely on. But this too is beginning to alter as some positive changes have already occurred. In some southern and central regions a special program called “Agro+” is working for rural entrepreneurs, including farmers. Thanks to this program, farmers are able to avoid many of the problems mentioned above. The USAID Micro Lending Project in Ukraine provides technical and financial assistance to banks working within the framework

of this program and the Agricultural Marketing Projects (AMP) target clients, who are small and medium size farmers are also being included.

In 2005 the AMP jointly with NADRA bank tried to improve the agricultural lending situation in Odesa oblast. Though it was an extremely complicated task for the banking sector in the beginning of 2005, this season NADRA bank granted loans worth \$82,500 to eight farms located throughout the oblast under the assistance of the Loan Specialist working in the Odesa AMP office.

One of AMP’s clients, Khomich Stanislav, has been involved in the agricultural business for five years and last year he cultivated 170 ha, which is a rather large amount of acreage. Mr. Khomich produced grain crops and sunflowers, as do many farmers in southern Ukraine. But in 2003 he made the decision after working with the AMP agronomist to start working with more profitable vegetable crops and planted 5 ha of tomatoes. By season 2005, under assistance of AMP, his tomato acreage increased to 22 ha. To most efficiently cultivate these fields, the farmer needed to buy agricultural machinery, fuel, and chemicals, and to cover labor costs. Where would he find working capital funds in the village to meet the costs? A bank loan seemed the only solution.

The total cost of the machinery available as collateral reached almost 60,000 UAH. In his case, most banks could only give a maximum loan amount of 25,000 UAH. However, with the Development Credit Authority (DCA) program and NADRA bank, working as a USAID partner, he with the help of the AMP credit advisor was able to secure a loan for 50,000 UAH.

Mr. Khomich was due to repay the loan by winter. However, he was able to accomplish this just after harvesting of his grain crops. Due to the experience he gained from AMP trainings and from consultations with the Odesa office AMP agronomist he was able to make the loan funds work to his benefit as well as for NADRA’s.

Next season, the number of loans granted by NADRA bank in Odesa oblast to farmers is expected to double thanks to the consulting assistance and other support of AMP specialists. Many banks are still hesitant to grant money to farmers and also many farmers are still reluctant to apply for loans. We hope other banks and farmers will be encouraged by this positive example and will reach the same success as Mr. Khomich and NADRA bank have.

Market Information (MI) – AMP-Sponsored Journal Makes Large Impact during Its First Year.



Ukraine has long been known for its substantial share of the most fertile land in the world. Twenty-four percent of the 22.5 million Ukrainian workforces are employed in the agricultural sector. Lack of timely consolidated information on the Ukrainian agricultural markets is one of many obstacles that impede work for farmers working in the fruit and vegetable industry. The marketing information on fruit and vegetables distributed in a scattered and sporadic fashion, have been limiting farmers to selling their produce on local markets, thus reducing their

revenues.

AMP saw the need in consolidating up-to-date agricultural information in both, print and electronic formats. With the assistance of a subcontractor APK-Inform, it published two journals and launched an up-to-date website. Monthly *Agro-review* and weekly *Agro-review+* journals are distributed to about 3,000 subscribers each month. Both the website and journals contain comprehensive information on the Ukrainian agricultural markets, particularly the fruit and vegetable markets including: market news, offers and bids, current market prices; technological updates, specialized technical and marketing articles written by AMP staff, farmers, and outside specialists; and contact and buying information of interest to wholesalers, processors, and retailers.

AMP and APK-Inform provides timely price and volume information from 16 market centers of Ukraine. These include six oblasts where AMP works and major centers, including Kyiv, Dnipropetrovsk and Kharkiv. This information is updated each Friday, and by Saturday morning is on its way to AMP clients. For those who have internet access, it becomes available once it has been inputted to the AMP database.

AMP also designed an “offers and bids” system to improve farmers’ marketing channels and provide them with an opportunity to advertise their produce free of charge. The system turned to be a source of valuable information for the AMP project. By tracking market trends and participants, AMP can better design and adjust its initiatives to meet farmers’ needs.

Since its inception, the MI component has been highly utilized and complemented by fruit and vegetable farmers, input suppliers, wholesalers, processors retailers, and institutional organizations.

Three thousand (3,000) readers receive directly the AMP Agro-review and Agro-review+ journals. Through reprints and use by various media, AMP information reaches 50,000 users weekly. The AMP website receives over 10,000 visitors each month and is ranked as the number one in the food and agricultural sector by www.bigmir.net, a local search engine which tracks and rates Ukrainian websites in terms of utilization.

In September 2004, the listings of “offers and bids” for fruits and vegetables counted 1,500 – 2,000 entries per week. According to a survey conducted by AMP’s market information staff, 43 percent of respondents said they had contacted suppliers and/or buyers based on the “offers and bids” system. Twenty percent of surveyed producers said they actually sold their produce using AMP information. It also helped 2,000 farmers to generate an estimated 15 million UAH (about \$3 million) in additional revenues as a result of reduced costs for inputs and better prices for products sold.

Quote: Rozana Omelchuk, “Rozana” Farm: “At first, I was quite skeptical about placing an offer at the web-page of AMP and in Ahroohliad+. But after doing so, I received several phone calls from potential onions buyers and have earned more than US \$10,000 of revenue.”

Learning Is Key to Growing More Successful

Alexander Kravchenko is one of those Ukrainian farmers who never tires of learning. And these days there’s plenty to learn about farming. This successful farmer says that his success depends on swift adoption of new technology and marketing practices.

Back in 2003 Alexander was one of the first clients of Agricultural Marketing Project (AMP) and he was eager to receive the project’s technical assistance and marketing training. In just three years he has become one of the leading farmers in the Cherkasy region. His background in engineering has allowed him to use his excellent analytical thinking and organizational skills, which has played a major role in his farm’s development. Furthermore, he is constantly applying modern practices in vegetable production and marketing. With AMP’s assistance, Alexander has developed close working relationships with a variety of suppliers including high quality seed, drip irrigation and crop protection chemical companies as well as establishing new marketing channels. During his first year of farming Mr. Kravchenko produced tomatoes on 18 ha

of non-irrigated land. In 2004 he increased his area of tomato production to 33 ha, including 10 ha with drip irrigation. Based on market needs, this year the crop assortment was expanded to include cabbage, carrots and cucumbers and continues to improve its production technology. To ensure higher tomato yields, he purchased certified seedlings for part of the tomato production and used a precision drill on the remaining area.



Photo: Alexander Kravchenko and his son on tomato field.

The farm also uses modern practices for its cucumber production as certified seedlings are grown on trellises. In addition, drip irrigation is used on more than 30 ha of land; this is rather significant for Ukraine. But even the best technology doesn't do you any good if you can't sell the produce. To expand his farm, Mr. Kravchenko relies on long-term partnerships with processors and wholesalers. Once again using AMP's assistance, Mr. Kravchenko has developed important business contacts with major national

processors and wholesalers who buy produce in the Cherkasy region. Alexander Kravchenko negotiates contracts with potential buyers prior to the new season. This allows him to develop more effective production and marketing plans. This year contracts were signed for 1,200 tons of vegetables worth approximately \$181,000. The adopted production and marketing practices produced good returns and in 2004 the farm earned \$35,000. The expected profit in 2005 is estimated to reach \$75,000.

More importantly, Alexander has always welcomed a chance to contribute to the learning process and share his knowledge. One way he does this is by hosting AMP's field demonstration plots for the second year already. Mr. Kravchenko's farm serves as a sort of a training base for local farmers who want to garner information about the latest techniques and technologies in agriculture. In the past two years AMP successfully conducted two major field days and seminars at his farm where more than two hundred participants attended the events. The participants were able to observe the results of using quality hybrids and varieties and new or improved production practices. Recognizing the need to think about his farm's sustainability, the farmer also has plans to extend his vegetable marketing season. In order to accomplish this he has initiated developing a farmer coop that will provide vegetable storage services and will allow them to benefit from higher prices during the period of off-season sales. In June 2005 with direct help from AMP Mr. Kravchenko and his neighboring farmers registered Melniki Service Cooperative. The coop has applied to AMP for grant assistance in order to construct vegetable storage facilities. Alexander's personality is an excellent example of someone who continues to be a leader in his farming community, learning and sharing his knowledge and creating opportunities for himself and his fellow farmers.

DARY BEREGIVSHCHYNY cooperative proves efficiency of farmers' collaboration

Market interrelationships in the agrarian industry stimulated the emergence of new economic entities: farmers, small private agricultural enterprises, service cooperatives, rural service centers, and similar organizations. They are important contributors to market infrastructure. The chain of service cooperatives and agricultural trading houses are in the process of formation, and rural people have started selling produce through these chains.

The agricultural service cooperative DARY BEREGIVSHCHYNY (can be translated as “gifts of Beregovo rayon”) is an example of the development of these small rural businesses. The cooperative was created earlier this year with assistance from the Agricultural Marketing Project in Zakarpattya. The cooperative united vegetable producers from several communities under the leadership of Valentina Polyak, an experienced Agronomist, and head of the cooperative. In 2005 Polyak’s farm and nine families – partners of Valentina - supplied over 25 tons of cucumbers to the local UNIVER cannery.

In turn, UNIVER provided Polyak’s farm with a cucumber sorting line free-of-charge. And, cannery specialists helped organize collection points for purchase of cucumbers from the neighboring villages. The performance of UNIVER’s collection points was assessed, and Mrs. Polyak received 3rd place recognition and an award for her good work. There are around 40 members in the cooperative now, 23 of which joined the cooperative in 2006. Newcomers have already started to produce cucumbers on trellis and supply raw materials to the cannery. Nearly all cooperative members grow cucumbers on trellis; and, this technology results in producers having 8-9 kg from 1 meter, or 8-9 tons from 1 km of trellis. Due to its ability to form large shipments, the cooperative signed a supply contract with UNIVER cannery. Working individually, cucumber producers will not be able to supply large volumes of cucumbers. However, cucumber overproduction is now being observed in Zakarpattya oblast; thus, canneries purchase cucumbers only according to previously signed supply contracts. Individuals can only sell small cucumber shipments on the fresh market this year, a contrast to prior years

In total, each cooperative member will receive 12,000-13,000 UAH of additional profit in 2006 when compared to the previous year. Working independently, producers have no chance to grow and sell large volumes; therefore, they produced cucumbers mostly for their own consumption and/or for fresh market.

As a result, 23 new cooperative members gained about 300,000 UAH of additional revenue this year by cooperating to supply the UNIVER cannery. Still, these are preliminary evaluations; and, the full impact will be thoroughly evaluated at the end of the season. Now the cucumber sorting line provided by UNIVER is on the balance sheet of the cooperative; and during the peak season cooperative member’s supply up to 10 tons of cucumbers daily to UNIVER cannery. More than 50 jobs were created due to the work of the new cooperative.



Photo: Valentina Polyak (in the center) with representatives of an Hungarian cooperative during the study tour to Hungary conducted by AMP

Service cooperatives are quite a novelty for the country's markets. They are making their first steps now; and, the cooperative is still economically weak, as the organizational structures are in the process of being formed. This form of entity experiences more difficulties when compared to others when trying to adapt to market conditions. State authorities have preconceived opinions regarding this form of cooperation; producers do not understand this form of business, and they doubt that cooperatives can function under modern market conditions.

The AMP specialists evaluated all advantages and disadvantages and persuaded the future cooperative members to form this entity. They helped farmers create an initiative group, plan future activities, register the cooperative and, of course, set business relations with the management of UNIVER cannery. AMP's Agronomist

consulted cooperative members in agronomic issues in order to ensure maximum cucumber yield. And, we can say, 2006 year is a success. DARY BEREGIVSHCHYNY cooperative is steadily moving ahead despite possible obstacles. The cooperative members actively participate in all seminars conducted by the Zakarpattya AMP office and, they share experiences of vegetable production among relatives and neighbors. Processing enterprises and input suppliers find it satisfying to work with the cooperative, and the cooperative members obtain discounts for input purchases, interest-free loans; and, bonuses when meeting delivery targets.

Changing Lives for the Better

Agricultural and rural development in Ukraine has been a USAID priority for its fifteen years in Ukraine. Projects have supported land privatization; farm restructuring; enterprise developments in agribusiness and the food industry; extension services to agriculture; educational programs to agriculture and rural producers; access to credit for agriculture; cooperative development; and recently (March 2003 to March 2007) the Agricultural Marketing Project (AMP) has been assisting to link small and medium sized private farmers to markets and helping to improve efficiencies for market players all along the marketing chain between producer and consumer.

This story is about people who, working as the AMP team, succeeded in changing other people's lives for the better.

The AMP has worked in Ukraine since March 2003 as a USAID-funded technical assistance program implemented by Land O'Lakes Company in partnership with Informa Economics company, Inc., Development Alternatives, Inc. and, Ukrainian informational-consulting company APK-Inform.

The project's mission was to stimulate increased rural incomes and employment by enabling small and medium sized farmers to identify and meet market needs profitably through enhancing quality and production efficiency; pursuing joint marketing efforts; and, adding increased value to their products.

The AMP targeted commodity sectors included primarily vegetables, fruits and berries. In addition; however, the project was involved in the establishment and launching of a bryndza and feta production plant, based on sheep and cow milk, in the mountainous Rakhiv rayon of Zakarpattya oblast.

The target AMP clients were small and medium sized private agricultural producers who grew the mentioned commodities on acreage up to 50 ha. By the end of the Project AMP had 800 farmer clients; and, 151 marketing firm clients (processors, wholesalers, retailers and food service firms) who regularly received marketing advice and technical assistance. Also, over 50 input supply firms worked with and/or were assisted by AMP.

The AMP efforts focused on the implementation of five basic components: Commercial Farming, Market Development and Infrastructure, Farmer Organization and Association Development, Market Information and a Small Grant's program. The Grant program helped provide financial support for initiatives of Project clients that helped demonstrate new technologies of systems to producers or other market players that were clients of the project. Some successes of each component are summarized below.

The prime objective of the Commercial Farming Component was to increase the competitiveness and delivered quality of fruits, vegetables, and berries produced by small and medium sized private commercial farms. This was accomplished via technical assistance and training related ideas associated with agricultural technologies, marketing practices and enterprise management improvements provided to agricultural producers. In the framework of this component over 13,900 participants (producers, farm input suppliers, processors, wholesalers, retailers and food service firms) attended 2,045 AMP seminars, workshops, field days, round table discussions, conferences and presentations; 15% have been women. Maria Oros, head of the farmer household "Oros" and a leader member of producers' association "Zakarpattya", said: "For several years after independence farmers of the Zakarpattya region suffered from a great information starvation. However, seminars, trainings, exercises, and mass media events, organized by AMP, have changed the situation for the better. And, it was done at the right time; this has been the most important thing".

The key objective of the Market Development and Infrastructure Component was to enhance the development and efficiency of the Ukrainian produce market infrastructure via building mutually beneficial trust relationships between agricultural producers and fruit and vegetable buyers along the marketing chain: wholesale companies, processors,

retail chains, and public catering institutions. Also, the team responsible for this component worked hard to improve post harvest handling (PHH) practices: fruit, vegetable and berry storage; packing operations; logistics and handling systems; and, market infrastructure, such as promoting wholesale markets. Many of the 2,045 seminars, workshops, and training events mentioned above also included topics of a market development nature. In addition, over 13,100 consultations were provided to farmer clients on new/improved technologies, PHH and marketing practices. Five AMP clients submitted and were selected for grants dedicated to PHH activities: storage, produce washing, selecting, sorting and packing. Also, this team helped to improve produce sales in supermarkets through the conducting of a new concept “supermarket display contests” held in August 2005 in Cherkasy oblast and in September 2006 in AR Crimea. A result of these contests was to help supermarkets realize a 20% revenue increase; and, at the same time consumers enjoyed new and more attractive produce displays showing higher quality products. The AMP contributed to the development of the fruit and vegetable marketing and purchase culture of Ukraine.

Nikolai Choropita, Agro-Yukos Ltd manager, AR Crimea said: “We used to sell grapes in banana boxes for \$2/kg – now buyers receive Agro-Yukos table grapes packed in cardboard boxes with a company brand label affixed. The price is the same, but the new specialized packaging has reduced produce losses to about 5% (it used to be 50% in banana boxes). The buyers prefer purchasing nicely packed national product. We hope that this year our company’s profits will reach 1 mln. dollars. Yes, proper PHH handling is important”.

A primary objective of the Farmers’ Organization and Association Development Component was to help farmers to form groups to join forces and gain benefits of working together. The benefits AMP worked to help these farmers obtain were higher prices for their commodities, and through group buying pay less for input supplies and equipment purchases. Also, the project helped unite efforts of farmers in creating joint facilities – storage, PHH and, packing - to help extend the season and increase prices which increase revenues for all and helps protect producers’ interests. The primary tool of this component was the establishment of agricultural business structures (service cooperatives, associations, and other business forms for farmers’ groups) that achieve bringing farmers together for their mutual benefit. AMP assisted 42 farmer groups having 1,250 members with market and marketing planning and, organizational development assistance. Many farmer groups supported by AMP grants are expected to remain sustainable as entities because they have been founded for sound business reasons. The match funds (\$392,167) invested by beneficiaries of AMP’s Grant Program (\$225,565) in joint projects is equal to \$1.73 for each \$1 AMP invested and exceeded targets. Oleksandr Kravchenko, head of private farm “AKRA” has achieved overwhelming success as a cooperative leader. A newcomer to the agricultural business, in 2003 he alone produced tomatoes on 18 ha of non-irrigated land. The cooperative “Melniki”, formed under the leadership of Mr. Kravchenko, cultivated 118 ha during the 2006 season and sold the product direct to retail chains and to processors. The cooperative also manages a cold storage facility, cucumber sorting line and a washing, sorting and packing line. Some of these PHH activities have been assisted by means of

AMP grants. He confirms that increased incomes and a growing number of jobs have proved the effectiveness of the cooperatives activities.

The objective of the Market Information System (MIS) Development Component was to be an integrative activity that would help decision makers improve effectiveness of decision-making. The AMP MIS provided target client groups and other participants in the supply/value chain with technical/marketing ideas, market news, price information, commodity forecasts, and purchase/sale opportunities on fruit and vegetable markets throughout Ukraine. This information, made available to all market players, helps ensure maximum transparency on the fruit and vegetable market, improve effectiveness of the whole market chain from producer to consumer, create additional opportunities for produce marketing, and encourages experience and idea exchanges among produce market players.

The AMP has developed and implemented a unique market information system which includes data collection, analysis and presentation. The data are used to evaluate the requirements of the produce, meat and, dairy markets; they include up-to-date information about fruit and vegetable prices in the different regions of Ukraine that help identify new sales opportunities and market channels. AMP's MIS includes "Agrooglyad: fruits and vegetables" journal and it has provided market reports to 3,750 market readers weekly. Retail prices for 42 target commodities monitored at farmers' markets and supermarkets in 16 regional centers were reported weekly to readers. AMP's market information system posts about 1,200 bids and offers weekly from producers; produce buyers; and, farm input suppliers in season. AMP's website, ranked as the most visited site in Ukraine's agriculture and food category, attracts more than 30,000 users monthly, and provides up-dated technical and market information. AMP information was provided in over 800 publications/appearances that claim to reach an audience of about 22-23 million people. Yaroslav Mayovets, farmer, from farm "Pervotsvit" confirms: "With the help of AMP, thanks to advertisement in "Agrooglyad: Vegetables and Fruits" journal, I sold my products to a canning factory while not one of my colleagues sold anything. I hope for further successful cooperation".

Also, AMP conceptualized, organized and implemented the idea for an annual produce conference "Fruits and Vegetables of Ukraine". At present, this conference, now having completed three years, is the only place for the produce business players of Ukraine and other countries to meet and discuss urgent topics confronting the Ukrainian and regional produce industry. Practice shows that the conference serves as: a unique source of professional information about market perspectives and new technologies; and, a source of new ideas and upscale experience. This activity is sure to be continued in the future.

For farmers and the produce industry some of the most important results of AMP activities in Ukraine include:

- \$14.7 million in produce sales directly facilitated by AMP.
- \$29 million in additional sales (from revenue gains and cost savings) resulting from the use of information provided by AMP's MIS.
- 4,745 seasonal and 1,096 permanent jobs have been created on client farms with an estimated value of \$4.72 million; also, many existing jobs have been maintained.

Also, we are happy to indicate that four out of six AMP offices have registered to continue some project activities on a self-sustaining basis. Now the private enterprises in Poltava, Cherkasy, Odesa oblasts and AR Crimea are providing clients with necessary consulting and advisory services on production technologies, marketing, and other related issues as commercial entities. Also, the work of the MIS, "Agrooglyad: Vegetables and Fruits" journal, the AMP web-site www.lol.org.ua and the field day activities will be supported on a self-sustaining basis by APK-Inform and some members of the AMP team. It is hoped that former colleagues of the AMP team will fully develop their potential as businessmen on the produce market.

When indicating successes achieved by AMP, it is necessary to recognize the team that worked on the AMP team in Kyiv and the six regional offices of Cherkasy, Poltava, Lviv, Zakarpattya, Odesa oblasts and AR Crimea. These professionals dedicated their full time and energy to the development of the fruit and vegetable sector of Ukraine, and they can be proud of the achieved results. Dr. Robert Lee, Director of AMP, said at the last meeting of the team: “We all should know that we can finish and leave the project knowing that we did our best to meet the goals of the project and, we did. The most important success is seeing a smile on our clients face as he/she thanks you for the service that you have provided to him or her. It is important to know that we have worked to make a difference in some people’s lives and have succeeded.” May the work of AMP live on in the minds of those people the team has assisted?



On photo: AMP team’s retreat in December 2004

ATTACHMENT B

BRIEF DESCRIPTIONS OF SUBGRANTS

***LYUDMILA* Agricultural Service Cooperative**

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State Registration ID: 32033648
Tel: +38 0472 109386; +38 066 3064551
Contact person: Ludmila Sobol, Head of the Cooperative's Board

GENERAL INFORMATION

The ***Lyudmila*** Agricultural Service Cooperative (ASC) was founded on May 21st, 2002. At the moment the cooperative has **thirteen (13)** members, including **ten (10) women** – rural household plot producers. The members farm **thirty four (34) ha** of land and produce vegetables (tomatoes, cabbage, carrots, cucumbers, onion, sweet corn, radish and others), and potatoes. The cooperative business model is based on common usage of a cold storage facility built by the cooperative and equipped with cooling equipment funded by ***Agricultural Marketing Project*** (AMP)'s Grant Program. This facility is the focal point for receiving, sorting, and providing primary processing, packing, pickling and storage of the farmer members' produce.

GRANT PROJECT

During 2004 ***Lyudmila*** Cooperative actively supplied with the help of **AMP** several supermarkets in *Cherkasy city*. They were supplied with various kinds of fresh vegetables and home produced processed product, like pickled cucumbers and tomatoes, sauerkraut, and prepared salads. To extend the season the cooperative in mid 2004 decided to build a storage and cooling facility. By July 2005 ***Lyudmila*** Cooperative finished building the premise composed of a cooling facility of **thirty (30) tons** capacity and a vegetable storage cellar of **one hundred (100) tons** capacity. **AMP** provided the cooperative with **2 (two) refrigeration units** and financed **installation of the equipment** which amounted in total to **UAH38,399.50** (thirty eight thousand three hundred ninety nine hryvnas 50 kopeks). This joint project was officially launched on July 07th, 2005.

PERFORMANCE

The grantee's **match funds** invested in the project from August 2004 until June 2006 equaled **UAH318,115**; of which about 50% was spent for construction of the premises; other funds were spent for payment of salaries, purchase of current operating materials, and similars. Sales registered or facilitated by the cooperative equaled **400 thousand UAH** in 2004, and increased in 2005 by 40% up to **559 thousand UAH**. **Six (6)** permanent and **fifteen (15)** seasonal jobs were created.

CURRENT STATUS

Currently the equipment is properly functioning and located in Hudayki village. The photos below show the current condition of the equipment; the outside portion of the refrigeration units is shown on the left photo, and the inside portions - on the right photo.



MELNYKY Agricultural Service Cooperative

Address: 113, Lenina Street, village Melnyky, 19934, Chernobajevskiy rayon, Cherkasy oblast

State Registration ID: 33465659

Tel: +38 04739 35047

Contact person: Kravchenko Olexandr, Head of the Board

GENERAL INFORMATION

The ***Melnyky Cooperative*** was founded on the 13th of June 2005 in the village of Melnyky, Cherkasy Oblast by three persons. **Kravchenko Olexandr**, Head of the Board of the Cooperative, and one of the first clients of ***Agricultural Marketing Project (AMP)*** eagerly worked with the project and received the project's technical assistance and marketing training. In just three years he has become a leading farmer in the Cherkasy region. His background in engineering has allowed him to use his excellent analytical thinking and organizational skills to develop his farm. During the last **4 years** members of the Cooperative increased their land area devoted to vegetables, up from **10 ha** in 2003 to **110 ha** in 2006. Cucumbers, tomatoes, cabbage and carrots are the main produce of the Co-op.

GRANT PROJECT

The **Co-op** is continuously increasing production volume of vegetables; not only due to the increase of land area, but also due to increased productivity resulting from the introduction of new efficient technologies (drip irrigation, certified seedlings, trellis systems for cucumbers), and other methods involving new equipment. Consequently, the increased production, from both area and productivity required more efficient technologies of harvesting and post-harvest handling. In mid-2005 **AMP** provided **the Melnyky Co-op** with a grant-funded cucumber sorting machine valued **26,600 UAH** (twenty six thousand six hundred hryvnas and no kopeks). The sorting machine was demonstrated during a demo-plot day dedicated to production and marketing technologies for cucumbers held at the farm of one of **the Co-op** members.

PERFORMANCE

During the 2005/2006 and 2006/2007 marketing seasons, over **220 tons** of cucumbers with a value of about **450 thousand UAH** were processed by the machine. At least **48,850 UAH** were saved because of the increase in productivity and efficiency related to handling cucumbers post-harvest. The **Co-op's direct match funds** invested in the project equaled **UAH 28,780**. Four (**4**) new seasonal jobs have been created by this project.

CURRENT STATUS

Currently the equipment is in proper condition and is located in the village of *Melnyky* of *Cherkasy* oblast. The photos below show the machine installed for operation at the field site (the left-side photo) and stored in a warehouse (the right-side photo) during the off season.



2nd GRANT PROJECT

Benefits that come from applying efficient production technologies (yields and total production outputs increase, production costs decrease, producing product with characteristics demanded by the market, etc.) could potentially result in minimal or even negative gains if they are not properly supported by efficient marketing practices. This was clearly realized by **the Co-op's** members who intended to sign forward contracts with wholesalers and canneries for all expected production volume. But, in order to meet requirements of some buyers and to enter new profitable markets (like selling through retail chains) produce should be sorted, graded, washed and packed in accordance with buyer's demands. In mid-2006 AMP approved a grant application of **the Melnyky Co-op** for the purchase of an equipment set used to improve PHH of vegetables (inspection conveyor, drum-type washing machine, drying machine, sorting machine, weighing and packing machine) valued **UAH 126,095.50** (one hundred twenty six thousand ninety five hryvnas 50 kopeks).

PERFORMANCE

The **Co-op's expected match funds** for housing, installation, and launching of the equipment set will require an investment in the project equal to at least **UAH 129,000**.

At least four (4) new seasonal jobs will be created by this project. It is expected that around **500 tons** of root vegetables will be processed by the line annually. Due to much higher productivity of the line when compared with manual processing, up to **UAH 112,000** could be saved annually. In addition to this, a higher selling price of sorted, washed and packed vegetables is anticipated to result in an additional income of up to **UAH 200,000** annually.

CURRENT STATUS

Currently the equipment is in proper condition, is labeled with plastic labels that show the new USAID logo, and they are located in the village of *Melnyky* of *Chernobajevskiy* rayon. The photos below show some items of the equipment set.



AGRO-YUKOS Limited Company

Address: 43, Moskovska Street, village Roschyne, Djankoyskiy rayon, 96183, AR Crimea
 State Registration ID: 33287820
 Tel: +38 06564 58243 Email: agroukos@mail.ru
 Contact person: Choropita Mykola, Director

GENERAL INFORMATION

The **Agro-Yukos** Limited Liability Company was registered on 24 February 2005 by **three (3)** farmers who decided to switch gradually from grain production to vineyard management, (table grapes), and production of fruits and berries. In the beginning of 2006 **one** more farmer joined the company. Currently the company continues to maintain **100 ha** of grain crops; but, as it moves toward vineyard/fruit management it also has **3.5 ha** of table grapes, **3 ha** of peach orchards and **0.4 hectares** of blackberry nursery. Since the end of the growing season the company has planted **10 ha** of new table grape vineyards, and will plant another **10 ha** in 2007.

GRANT PROJECT

Management of the company understood the importance of having a brand/label which would help them advertise their product. It was seen as a tool that would help substitute the import of table grapes. It did help, because the popularity of the domestically produced **Agro-Yukos Ltd** table grapes became so popular that buyers selling table grapes

in Yalta used the *Agro-Yukos Ltd* boxes, with brand/label, to sell imported table grapes when the *Agro-Yukos Ltd* supply ran out. Specialists of *Agricultural Marketing Project* (AMP) assisted the company with trade mark elaboration and registration. Also, AMP's Grant Program provided *Agro-Yukos Ltd* with special cardboard boxes (with printed company logo) and perforated plastic packs (bags) to hold grape bunches. The total grant was in the amount of **UAH 24,945.49** (twenty four thousand nine hundred forty five hryvnas and 49 kopeks). This PHH packaging system was demonstrated to several growers in the region.

PERFORMANCE

The grantee's **match funds** invested in this joint project equaled **UAH 89,890**. Unfortunately, because of strong frosts that occurred in February 2006, the yield of table grapes was much less than expected – at about **10 tons** instead of 70 tons. But, even with this short crop, *Agro-Yukos Ltd* gained an additional profit of **UAH 30,000** due to usage of the branded package. In addition, the special box construction assured better and easier handling/transportation of the produce, saving substantially on in-transit losses. **Three (3)** seasonal jobs were created by this small PHH project, and would have created at least three times as many if the season had been normal.

CURRENT STATUS

Because of the unfavorable weather conditions; and, consequent low yields, only about 30% of the packing materials were used in the past season. The remaining packaging is properly stored and will be used during the next marketing season. Photos below show the boxes and plastic packs.



***FRUKTY KRYMU* Agricultural Service Cooperative**

Address: 9, Chebotarskaya str., village Chervonoye, Saky rayon, 95570, AR Crimea
State Registration ID: 33258281
Tel: +38 067 2679926
Contact person: Dzhorkashvili Mikhail, Head of the Cooperative's Board

GENERAL INFORMATION

The ***Frukty Krymu*** (*Fruits of Crimea* in English) ***Cooperative*** was registered on 09 March 2005 by **three (3)** farmers for the purpose of joining efforts for produce storage and marketing. Recently **four (4)** more farmers became associated members of the cooperative. In total, members of the cooperative farm about **100 ha** of vegetables and **12 ha** of fruit orchards. Cabbage, carrots, tomatoes, potatoes, squash, egg-plants, red beet, peppers, cucumbers, water-melons, melons, sweet-corn, peaches are the members' main fruit and vegetable produce.

GRANT PROJECT

Up to 40% of the commodities harvested by the farmers were usually lost under ordinary storage conditions. To minimize losses, ***Frukty Krymu Co-op's*** members decided to build a cold storage facility. A part of a former storage facility, was reconstructed inside and two chambers of **100** and **50 tons** capacity were built. Also, some insulation materials were re-used in the new premises. These measures allowed the farmers to save on construction costs. ***Agricultural Marketing Project*** (AMP) approved this project for financing and provided ***Frukty Krymu*** cooperative with a grant in the amount of **124,712 UAH** (one hundred twenty four thousand seven hundred twelve hryvnas) for the purchase of **2 (two) refrigeration units** and **two (2) specialized doors** for the chambers. This joint project started functioning on October 04th, 2005.

PERFORMANCE

The grantee's **match funds** invested in the project equaled **UAH 171,600**. During the 2005/2006 marketing season **150 tons** of cabbage and red beet were stored in the premises. The produce was sold during late winter/early spring 2006; and sales equaled **UAH 300,000**. By using the produce storage facility the cooperative earned an **additional** profit estimated at nearly **90,000 UAH** as the produce losses were reduced by almost 10 times. Also, after experiencing actual profitability from using the vegetable storage facility, the manager Mr. Mikhail Dzhorkashvili decided to build **two (2)** additional chambers of about **100 tons** capacity each which have already been launched. **Three (3)** new seasonal jobs were created by this project; but, it also helped maintain many other jobs.

CURRENT STATUS

Currently the equipment is properly functioning and located in Chervonoye village; the facility is loaded with produce for storage. The photo on the left shows product stored inside part of the 100 tons capacity chamber, the photo on the right shows the compressor unit for the facility.



2nd GRANT PROJECT

Production of peaches is widespread in AR Crimea; most of **the Co-op's** members have peach orchards. In order to promote peaches grown by the members, gain additional profit and reduce losses during transportation, specialists of the **Agricultural Marketing Project (AMP)** advised **Frukty Krymu Co-op** to use special branded packaging to promote quality and name of their cooperative. In mid-2005 AMP approved the grant application of **Frukty Krymu Co-op** and assisted the cooperative in obtaining cardboard boxes, plastic trays and the printing stamp used to print **Frukty Krymu Co-op's** logo and contact information on the boxes. Also, a tarpaulin tent was provided for installment of field sorting and packing point that would reduce losses and transportation costs. This Grant was valued at **15,058 UAH** (fifteen thousand fifty eight hryvnias). This PHH packaging system was demonstrated to several growers in the region during specialized seminars and workshops, and some other farmers decided to utilize some aspects of the PHH practices.

PERFORMANCE

The grantee's **match funds** invested in this joint project equaled **UAH 15,200**. Unfortunately, because of strong frosts that occurred in February 2006, the yield of peaches was much less than expected and produce quality was very poor so benefits were not as great as they should have been. But, the Co-op members did estimate that direct profit increases due to higher prices and a reduction in losses was equal to about **1 hryvnya for each kilogram** of peaches packed in the boxes. In addition to the direct financial benefits, the labeling of boxes with Co-op contact information resulted in some indirect benefits, like promotion of local produce, attraction of new potential buyers, and an improved name recognition and image for the cooperative.

CURRENT STATUS

Because of the unfavorable weather conditions; and, consequent low yields, only about 10% of the packing materials were used in the past season. The remaining packaging is properly stored and will be used during the next marketing season. The left photo shows

the boxes loaded with peaches for demonstration during seminars, the photo on the right shows a part of the boxes stored in the Co-ops warehouse to be used during the 2006/2007 marketing season.



3rd GRANT PROJECT

Root vegetables produced by the **Co-op**'s members are usually sorted and graded manually and supplied to buyers either in bulk or in wholesale packages (packing is also not-automated). This approach has two major disadvantages: the increasing cost of labor makes post-harvest handling costs higher each marketing season, and in some cases it's difficult to maintain high and stable quality of the produce when all post-harvest handling operations are performed manually. At the end-2005 the Co-op addressed the *Agricultural Marketing Project (AMP)* with a grant application for the purchase of a set of equipment for post-harvest handling of root vegetables. The application was approved and **Frukty Krymu Co-op** was provided with a drum-type washing machine, drying machine, sorting machine, weighing and packing machine for root vegetables valued at **109,990.05 UAH** (one hundred nine thousand nine hundred ninety hryvnas and 05 kopeks).

PERFORMANCE

The **Co-op**'s **expected match funds** for housing, installation, and launching of the equipment set will require an investment in the project equal to at least **UAH 110,800**. At least eight (**8**) new seasonal jobs will be created by this project. It is estimated that the price of processed (sorted, washed and packed) produce is higher by **30-35%** than unprocessed produce sold in bulk. The **Co-op** would receive an additional profit of about **160,000 UAH** if the produce the Co-op currently has in storage (over **330 tons** of carrots, potatoes and red beet) is sold after being processed on the new PHH line.

CURRENT STATUS

Currently the equipment is in proper condition, is labeled with plastic labels that show the new USAID logo, and they are located at Co-op facilities in the village of *Chervonoye* of *Saky* rayon, *AR Crimea*. The photos below show some items of the equipment set on the line.



Ros-MTE Ltd.

Address: apt. 30, 125a, Kyivska Street, Simferopol, 95000, AR Crimea
 State Registration ID: 20693005
 Tel: +38 065 232 3395
 Contact person: Mykytyuk Evgeniy, Director

GENERAL INFORMATION

The ***Ros-MTE*** Limited Liability Company was registered on 14 September 1993 and is based in the village of Gvardeyskoye, Simferopol rayon, AR Crimea. ***Ros-MTE Ltd*** specializes in the production of early vegetables (tomatoes, radish, fresh herbs, sweet pepper and, lettuce) using green houses with special plastic film. The company is a main supplier of lettuce to the McDonalds chain in Ukraine and Russia. ***Ros-MTE Ltd*** is cooperating with **eight (8)** farmers from the village of Gvardeyskoye and neighboring villages to produce lettuce so as to meet the quantity and quality requirements of the McDonalds chain. The farmers now work more like a cooperative and have added other buyers as customers, even though they have not officially registered as a cooperative.

GRANT PROJECT

The quality of early vegetables, especially lettuce, may be preserved using flash cooling where the temperature of the product is quickly reduced to near 0C and then transported in this cooled state to market. Without pre-cooling and proper storage/transportation, produce losses could be as high as **15-20%** and often times more. Thus, construction and usage of cold storage facilities was very important for successful development of ***Ros-MTE Ltd*** as well as the farmers the company collaborates with. ***Ros-MTE Ltd*** constructed a cold storage facility with **two (2)** chambers having about **70** and **50** tons capacity respectively. ***Agricultural Marketing Project (AMP)*** provided ***Ros-MTE Ltd*** with a grant for the purchase of **1 (one) refrigeration unit** able to cool quickly the

chamber having the **50 ton** capacity. Value of the awarded grant equaled **UAH 57,606** (fifty seven thousand six hundred six hryvnas). This joint project started functioning in September 2005.

PERFORMANCE

The grantee's **match funds** invested in the project equaled **UAH 90,264**. **Four (4)** permanent and **four (4)** seasonal jobs were created in the company; and many jobs were created and/or maintained in the partner agricultural enterprises. Due to usage of cold storage chambers losses were reduced to **3%**, the savings resulting from lower losses was estimated at **UAH 60,000** in 2005 and **UAH 50,000** in 2006. Thus, the payback for this investment is rapid.

CURRENT STATUS AND PERSPECTIVES

Currently the equipment is in proper state, is properly functioning and is located in the village of Gvardeyskoye. The photos below show the current condition of the equipment; the outside portion of the refrigeration unit (compressor) is shown on the left, and the inside unit is shown on the right.



***AGRODVIR* Agricultural Service Cooperative**

Address: Zibolky village, Zhovkivsky raion, Lviv oblast

State Registration ID: 32813104

Tel: +38 03252 68340

Contact person: Petro Fedyna, Head of the Cooperative's Board

GENERAL INFORMATION

The ***AgroDvir*** Agricultural Service Cooperative (ASC) was founded on February 06th, 2004. The main service the cooperative provides to its **nine (9)** members is post-harvest handling and marketing of fresh and dried fruits and vegetables using channels developed by ***Agricultural Marketing Project*** (AMP). The cooperative's members farm about **225 ha** of land (including **12 ha** under orchards) and produce more than **fifteen (15)** different

kinds of fresh produce, which include potatoes, onions, white and red cabbage, carrots, beets, tomatoes, cucumbers, peppers, sweet corn and other less important crops.

GRANT PROJECT

In mid 2004 the cooperative applied for AMP's Grant Program with a project of creation of a drying facility for vegetables and fruits. The project was aimed at increasing farmers' incomes though adding value by processing of fresh produce and minimizing losses by drying not sold produce and storing it for a much longer period. AMP approved this project for financing and provided *AgroDvir* cooperative with **four (4)** electric drying units for a total cost of **UAH66,160** (sixty six thousand one hundred sixty hryvnas). This joint project was officially launched on January 21st, 2005.

PERFORMANCE

From December 2004 to May 2006 *AgroDvir* ASC invested **UAH439,825** of its own funds in this joint project. Over 315 thousand UAH of match costs consisted of the premises where the equipment is installed, storage facility and administrative building as well as funds spent for repairing them. Another 100 thousand UAH were used for the purchase/repair of additional equipment necessary for proper functioning of the drying facility. Sales of both dried and fresh produce registered or facilitated by the cooperative in 2004 equaled **730 thousand UAH** and **703 thousand UAH** in 2005. **Two (2)** permanent and **six (6)** seasonal jobs were created.

CURRENT STATUS

Currently the equipment is properly functioning and located at Zibolky village. The equipment is used for drying of fruits and vegetables. The photos below were taken at the moment of signing of the transfer documents and the four drying units financed by AMP's Grant Program are shown in them.



***ANASTASIA* Agricultural Production Cooperative**

Address: 2, Galytska Street, Mostyska, Mostyskiy rayon, 81300, Lvivska oblast
State Registration ID: 32841519
Tel: +38 3234 41768, 25060
Contact person: Stelmaschuk Lyubomyr, Executive Director

GENERAL INFORMATION

The *Anastasia Cooperative* was registered on the 20th of February 2004 by **three (3)** founders. The *Anastasia Co-op* runs a highly multifaceted fruit and vegetable business. The Co-op produces strawberries, cucumbers, tomatoes, sweet peppers and greens in green-houses having **1,000 sq. m.** of total surface. Also, the cooperative members have a **20 ha** fruit orchard where apples, peaches, cherries, apricots and pears are being grown. Moreover, it is planned to extend the fruit orchards by **40 ha** in the near future. The Co-op developed on **2 ha** its own production of **130 varieties** of fruit saplings.

GRANT PROJECT

To extend its business, **the Co-op** decided to construct a cold storage facility to be used both for pre-cooling and short/middle-term storage of vegetables and strawberries (that would reduce the produce losses) and for long-term storage of fruits as well as fruit saplings (that would allow them to gain a better price during the off-season and to maintain the quality of the saplings). In 2005, **the Co-op** purchased a non-equipped cooling facility of **124 sq. m.**, and then repaired and divided the module into **four (4)** chambers. The *Agricultural Marketing Project* (AMP) approved this project for financing and provided *Anastasia* cooperative with a grant in the amount of **55,550 UAH** (fifty five thousand five hundred fifty hryvnas 00 kopeks) for the purchase of **2 (two) refrigeration units** for **two (2)** of the chambers. This joint project started functioning on March 07th, 2006.

PERFORMANCE

The grantee's **match funds** invested in the project equaled **UAH 149,754**. During the 2006/2007 marketing season about **15 tons** of produce with a total value of almost **UAH 52,000** was stored in the premises. Currently about **5 tons** of apples and **5,300** fruit saplings have been put in the storage unit. By using the produce storage facility the cooperative has already earned; and, is expected to gain from the sales of the currently stored produce, an **additional** estimated profit of nearly **UAH 25,000**. **Seven (7)** permanent and **twelve (12)** seasonal jobs were created and/or maintained by this small project.

CURRENT STATUS

Currently the equipment is properly functioning and located in Mostyska town; the facility is loaded with produce for storage. The photo on the left shows product stored inside part of one of the chambers, the photo on the right shows the compressor units of the facility.



***FAVORIT* Agricultural Service Cooperative**

Address: 11, Malinovskogo str., village Starokozache, Bilgorod-Dnistrovskiy rayon, Odeska oblast
State Registration ID: 32903270
Tel: +38 04849 50392; +38 067 7363242
Contact person: Pukhkan Sergiy, Head of the Cooperative's Board

GENERAL INFORMATION

The ***Favorit Cooperative*** was registered on 11 May 2004 by **six (6)** farmers from Belgorod- Dnistrovskiy rayon. An informal group of the cooperative's founders had been working together for several years before official registration in order to help solve questions related to production technologies and marketing of fruits and table grapes. Members of the cooperatives farm over **300 ha** of land in total; **about 30%** of which is occupied by fruit orchards (mainly peaches, pears and cherry) and table grapes. Besides the full time members, **ten (10)** more farmers joined the cooperative as associated members at the beginning of 2006.

GRANT PROJECT

Because of lack of necessary conditions and equipment for produce cooling and proper transportation, farmers suffered losses of up to **30%** of fruits harvested, especially peaches, cherries and table grapes. To minimize the losses, ***Favorit Co-op's*** members decided to purchase mini-trucks to be equipped with truck cooling equipment and to construct a cold storage facility. In addition to these efforts, **AMP's** specialists advised ***Favorit Co-op*** to use branded cardboard boxes with plastic trays for packaging of peaches that would not only reduce losses, but also increase profits. **AMP** approved the grant application of ***Favorit Co-op*** and provided the cooperative with both stationary cooling and truck cooling equipment, cardboard boxes, plastic trays, printing stamp for printing of ***Favorit Co-op's*** logo and contact information on boxes and a tarpaulin tent valued at **UAH 125,794** (one hundred twenty five thousand seven hundred ninety four hryvnas and 00 kopeks). This joint project started functioning on July 08th, 2005.

PERFORMANCE

The grantee's **match funds** invested in the project equaled **UAH 189,760**. Sales registered and/or facilitated by the cooperative equaled **100 thousand UAH** in 2005, and increased in 2006 up to **250 thousand UAH**. **Two (2)** permanent and up to **ten (10)** seasonal jobs were created and maintained by the project. Also, this project has been demonstrated several times to client farmers and firms during specialized trainings and seminars.

CURRENT STATUS AND PERSPECTIVES

Currently the cold storage equipment is in proper state (see photos below). Almost all cardboard boxes and plastic trays were used for produce packaging; about one hundred boxes are kept for demonstration purposes (some members purchased from their own funds additional boxes after they had experienced positive financial results from their usage). The printing stamp is used for printing new boxes. The tarpaulin tent is installed during harvesting for minimizing damage caused by heat from direct sunlight and to lower temperature of the produce before cooling.



STEMEL Ltd.

Address: 8, 1-iy Provulok Repina, Izmail, Odeska oblast

State Registration ID: 33357049

Tel: +38 04841 26622; +38 097 2121871

Contact person: Pavlo Melish, Director

GENERAL INFORMATION

The **Stemel** Limited Liability Company was created on 26 January 2005 by **three (3)** founders interested in the development of a fruit and vegetable wholesale business. One of the founders, Mr. Pavlo Melish had worked for almost two years as Head of the local Farmers' Association **Pridunavie** joining around **250** small and medium-sized farmers of Izmail rayon. A majority of the Association's members were experiencing difficulties finding enough funds to finance their business in the spring and the marketing of their harvested produce in fall. The newly created wholesale company **Stemel Ltd** works to resolve both these problems by paying farmers in advance for their future produce.

GRANT PROJECT

At the beginning of 2005, *Stemel Ltd* started setting up a distribution center for assembling wholesale lots of fruits and vegetables, and to provide sorting, washing, packaging and storage as required. Creation of the distribution center helps facilitate marketing of the local produce and to create additional jobs. Moreover, it helps extend the produce marketing season and minimize losses. In addition the *Stemel Ltd* group decided to construct a modern cold storage facility with **2 (two)** cooling rooms of **300 tons** total capacity. These rooms were built using special sandwich-panels designed for cold storage facilities. Construction of the cold storage premise was finished by August 2005. *AMP* provided *Stemel Ltd* with a grant in the amount of **UAH 125,000** (one hundred twenty five thousand UAH) for the purchasing of **2 (two) refrigeration units**. This joint project started functioning at the beginning of fall 2005.

PERFORMANCE

The grantee's **match funds** invested in the project equaled **UAH 546,800**. Up to **thirty (30)** farmers market their produce through the company. *Stemel Ltd* supplies fruits and vegetables to **six (6)** supermarkets in Odesa oblast and up to **twenty five (25)** wholesale companies from other regions of Ukraine. **Five (5)** permanent and **ten (10)** seasonal jobs were created in the company; and many jobs were created and/or maintained in the partner agricultural enterprises. Also, this project was demonstrated several times to client farmers and firms during specialized training sessions and seminars.

CURRENT STATUS AND PERSPECTIVES

Currently the equipment is in proper state and is located in Izmail. Loading of produce for storage (onions) is scheduled for the second half of September 2006. The photos below show the current condition of the equipment; the outside portion of the refrigeration units (compressors) is shown in the left hand photo, and the inside portions in the right hand photo.



BABUSYNI RETSEPTY Ltd.

Address: 61, Raskovoiv Street, Myrgorod, 37600, Poltavaska oblast
State Registration ID: 32038240
Tel: +38 (05355) 41019, 41308, 41930
Contact person: Valyushitskaya Tamara, General Director

GENERAL INFORMATION

Babusiny Retsepty Ltd. is based on the Myrgorod Cannery – a plant built in the middle 70s in Poltava Oblast of Ukraine. At the end of 90s it was privatized and on August 14th, 2003 the cannery was re-registered as **Babusiny Retsepty Ltd.** Initially the plant had a total production capacity of around **10 ml.** conditional jars (400ml jars) annually and could produce up to **180** different kinds of canned products. At the beginning of 2000 the cannery was modernized and some new equipment and production lines were installed.

GRANT PROJECT

During the recent past marketing seasons half of the production capacity of the plant was used. This was explained by one main reason - lack of raw material (vegetables and fruits for canning). To resolve this problem **Babusiny Retsepty Ltd.** collaborated with **Agricultural Marketing Project** (AMP) and contracted production from local farmers. Also, the cannery decided to develop its own raw material production base and launched two mushroom production facilities. These facilities provided the cannery with a raw material base during the entire year and this was considered very important for more stable functioning of the plant. **AMP** approved a grant application of **Babusiny Retsepty Ltd.** for the purchase of climate control equipment amounting to **123,500 UAH** (one hundred twenty three thousand five hundred hryvnas) for **two (2) more** mushroom production rooms. These additional chambers were necessary for stabilization of production of canned mushrooms in quantities sufficient for the market – as a result the cannery expected to have more funds for purchasing of vegetables and fruits from local farmers.

PERFORMANCE

By spring 2006 **Babusiny Retsepty Ltd.** invested **104,529 UAH** (not including the cost of the premises) of **match funds** in the project and completed nearly all necessary works. If the premise value is taken into proper consideration the cannery met its much over 1 to 1 match requirement. But, unfortunately, because of unfavorable growing conditions and tight supplies of cucumbers during the 2003-2005 marketing seasons it resulted in very high prices and deficit supplies of cucumbers – traditionally the main product of the cannery, and it eventually caused the cannery to run out of working capital and prevented the timely launch of the mushroom production facility. Moreover, during the 2006/2007 marketing season the cannery did not function and owners decided to sell it. It is anticipated that the new owners will eventually get the project functioning, but it did not happen during the 2006 season as the owners had other more pressing problems to resolve.

CURRENT STATUS

Currently the equipment is in proper installed condition, is labeled with plastic labels that show the new USAID logo, and is located in *Myrgorod*. The photos below show some parts of the equipment. It is strongly believed that the equipment will be used for its direct purpose when new cannery owners get all operations up and running.



***RAKHIVSKA BRYNZA* Agricultural Service Cooperative**

Address: village Lug, 299, 90616, Rakhivskiy rayon, Zakarpattya
 State Registration ID: 33198390
 Tel: +38 03132 36314, 36244
 Contact person: Voloschuk Mykhailo, Heard of the Board

GENERAL INFORMATION

The ***Rakhivska Brynza Cooperative*** was registered on the 08th of February 2005 in the village of Lug, Zakarpattya. It was founded by four persons and **Rakhiv Sheep Farmers Association**, which in turn unites approximately **60** farmers engaged in sheep and cow breeding. An ancient tradition of brynza cheese production from sheep and cow milk exists among *Hutsul* people inhabiting *Rakhiv* rayon. Moreover, in order to promote production of brynza cheese the **Association** started seven years ago to organize its annual event *Rakhiv Brynza Festival*, which was visited by over **10 thousand** people in September of 2006. Brynza cheese has been mainly produced as a home-made product, but not a commercial product, and this makes it difficult to enter the market and establish a strong position in it. The **Co-op** was created with the purpose of establishing a milk-processing plant for cheese production in an effort to move the business to a higher level and improve the welfare of the sheep and dairy producers in the region.

GRANT PROJECT

Besides the traditional brynza cheese, it was planned to produce hard cheese and feta. In July 2004 ***Agricultural Marketing Project*** (AMP) provided a group of farmers with a consultant *Dragi Mikhailov* of Macedonia who performed a pre-feasibility study and rendered consultations related to hard and feta cheese production technology. After the study was completed and showed a positive outlook for establishing a milk processing

plant, the Co-op was created and refurbishing of premises meant for the plant were initiated. **AMP** approved this project for financing and provided ***Rakhivska Brynza Cooperative*** with a grant in the amount of **125,000 UAH** (one hundred twenty five thousand hryvnas 00 kopeks) for purchase of milk-processing equipment with a daily capacity of **2 tons** of milk. Also, Mr. *Dragi Mikhailov* helped the **Co-op** launch the plant on June 21st, 2006.

PERFORMANCE

The ***Rakhivska Brynza Cooperative*** successfully launched the plant and produced sample lots of 2 types of traditional brynza cheese, hard cheese and feta. The samples were sent to standardization bodies for certification and elaboration of production standards. From March 2007 (when first shipments of seep milk begin), the plant will move from its trial period to commercial production of the various cheeses. The **Co-op's match funds** invested in the project equal **UAH 137,339**, it will be higher in the next phase. Three **(3)** new permanent jobs have already been created by this project; but many others will be created and/or maintained as full production begins.

CURRENT STATUS

Currently the equipment is in proper installed condition, is labeled with plastic labels that show the new USAID logo, and is located in the village of *Lug* of *Rakhivskiy* rayon. The photos below show some parts of the equipment.



ZAKARPATTYA Producer Association

Address: 2, Duknovicha Street, Khust, 90400, Zakarpattya

State Registration ID: 32876777

Tel: +38 050 3586111; +38 067 3122544

Contact person: Oros Volodymyr, Executive Director

GENERAL INFORMATION

The ***Zakarpattya Producers' Association*** was registered on 03 March 2004 by **three (3)** farmers from Khust rayon of Zakarpattya oblast for the purpose of protecting economic interests of their members. Currently, there are **fifteen (15)** members of the Association, including **eleven (11)** farmers mainly specializing in the production of vegetables (tomatoes, early and late cabbage, cauliflower) and strawberry, and **four (4)** private rural entrepreneurs.

GRANT PROJECT

Members of the ***Association*** now produce about **400 tons** of vegetables and **60 tons** of strawberries annually. Absence of a cold storage facility was negatively influencing the business of the Association's members that produce vegetables and berries. Pre-cooling could help reduce produce losses (especially for strawberries), and storage under proper conditions for a longer term of such products as cabbage could not only reduce losses, but also increase income due to higher prices during the off-season. Besides this, the ***Association*** planned to negotiate with retail chains the supply of an assortment of vegetables grown by the members; and, the cold storage facility would provide a place for collection and sorting of products. Because of the mentioned reasons, the ***Association*** decided to take a bank loan for construction of a modern cold storage facility of **420m³** volume (approximately **70 tons** capacity). The Grant Program of the ***Agricultural Marketing Project*** (AMP) provided the ***Association*** with a grant in the amount of **58,100 UAH** (fifty eight thousand one hundred hryvnas) for the purchase of **1 (one) refrigeration unit**. This joint project was officially launched on May 25th, 2006.

PERFORMANCE

The grantee's **match funds** invested in this joint project equaled **UAH 213,088**. In the summer about **12 tons** of strawberries were pre-cooled in the facility, currently about **30 tons** of cabbage is under storage. The estimated economic impact of reducing losses and gaining better prices is expected to be **UAH 20,000** this season. Also, more produce will put be stored soon and the economic impact will be increased. **Two (2)** permanent jobs were created by this project, as well as several seasonal jobs. Also, some previous permanent and seasonal jobs have been maintained.

CURRENT STATUS

Currently the equipment is properly functioning and located on the margins of Khust town; the facility is loaded now with produce for storage. The photo on the left shows product stored inside part of the chamber, the photo on the right shows the compressor unit for the facility.



ATTACHMENT C

STATEMENT OF ENVIRONMENTAL COMPLIANCE

Because the AMP dealt with small- and medium-sized farmers and was involved in assisting agricultural cooperatives and market system firms through a small grants program, USAID BEO was requested to review and approve a set of mitigation measures in an Environmental Assessment for Pesticide Use, and these measures were to be followed by the project. The opinion provided was revised and approved in June of 2006, and the AMP staff was informed of the revised measures in late summer 2006. The statement read:

“This IEE amends previous IEE’s approved by the BEO on May 28, 2003 and June 30, 2003 and covers pesticide use under the Agricultural Marketing Project (AMP). Four main areas where the project will have the potential of interfacing with farmers on the use of pesticides are as follows: 1) Encourage input supply companies to establish demonstration plots; 2) encourage farmer field visits to demonstration plots; 3) provide advice on pesticide use to farmers or farmer groups; 4) assistance in establishing organized farmer groups that may decide to buy and sell pesticides.

At demonstration site activities the AMP will favor agro-technical and biological methods for eliminating weeds, insects and diseases. Only after having applied all of the above methods with due specificity for fruit and vegetable growing will chemical treatment methods be utilized. Thus, only the most effective and safe preparations which have been tested and approved for use in Ukraine be used in minimal dosages. Also, proper integrated pest management (IPM) procedures would be followed.”

The AMP project took active steps to meet the requirements spelled out in the earlier IEE opinion and restated in the 2006 opinion. The AMP held a training session related to pesticide usage and IPM in June of 2004, which was conducted by Dr. Robert Hedlund of USAID BEO. This training session was organized jointly with USAID and was provided for all the AMP agronomists and others who would be involved with the activities related to demonstrating how to eliminate weeds, insects, and diseases as they related to fruits and vegetables. When completion of the training was finished, the AMP team of agronomists worked with input suppliers, farmers and others to implement the practices discussed and demonstrated.

The AMP project was in compliance with the mitigation measures, used the IPM training, and met requirements approved by the BEO when establishing field demonstrations, working with input suppliers, and encouraging farmers and farmers groups to visit demonstration sites. And, if pesticides were used at demonstrations they were those from the earlier approved list of chemicals

Also, the project was in compliance when providing assistance in strengthening farmer's cooperatives that may deal with buying or selling pesticides.

ATTACHMENT D

LIST OF DOCUMENTS, MANUALS AND REPORTS AVAILABLE ON DVD

Below is a list of project documents and materials available on DVD:

1. Materials and presentations of three Fruit and Vegetable Industry Conferences
2. Export Reports (apples, grapes, onion, tomato, watermelon)
3. Farm Business Model with crop budgets for 2004-2006 years
4. Manuals "*Packaging fresh F&Vs*", "*Experience of Production and Marketing of Vegetables in Ukraine: Results of THE AMP Demo Fields during the 2004-2005 Seasons*", "*Produce storage technologies and effective post-harvest handling practices*". "*Production and marketing of fruits and berries in Ukraine*" and others
5. Project Survey Reports
6. Regional Field Days and Seminars materials and presentations
7. The AMP's Regional Offices Presentations
8. STTA Experts' Reports
9. Study Tour Reports

The DVD was submitted to USAID in early March 2007 by Dr. R. E. Lee to Mr. Oleksandr Muliar.