TOUR COMPLETION REPORT

MTM Productivity Study Tour in USA

Grain Producers

from

Kharkiv, Ukraine

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GRAIN PRODUCERS STUDY TOUR

1.0. EXECUTIVE OVERVIEW

It was the most comprehensive grain tour undertaken so far, exposing the group to entire cycle of grain production, technology, management, marketing, R&D, academia, storage, transportation and logistics etc. It was important to show the Ukrainians the entire US grain sub-sector and its functional linkage to various organizations that play key role in achieving such high agricultural outputs never achieved in history by any other nation on earth.

Ukraine with its limited resources, investments and technological inputs had so far done relatively well in agriculture and produced reasonable outputs. However, given the fact that with an ongoing and successful privatization, legal land reform, agricultural re-structure, investment, advanced technological, management and other inputs etc., Ukraine could be a huge world class potential agricultural player and a major emerging exporters like Brazil, Argentina.

At the completion of the Kharkiv Grain study tour, CEI conducted 30-minute interviews with each of the participants to discuss the U.S. farm visitation program and to learn about the benefits, if any, for the participants. It was anticipated that there would be some major benefits in farm marketing, which currently happens to be the key issue and drawback in Ukraine, but lots of other benefits involving management and technology were learnt by every participant.

The results far exceeded CEI's expectations. In summary, the farm improvements learned include:

Technology Related:

- Farm executives saw for themselves the overall rapid conversion of US agriculture to a no-tilling conservation technology – the concept that was repeatedly reinforced at every level of their meetings with agricultural experts. The group is determined to increase use of no-till farming within the framework of a legal change in Ukraine, allowing use of transgenic seeds. Using no-tilling technique, they would be able to reduce fuel consumption on the farm by 50%. Fuel now consumes 60 - 70% of the total cost of farm operations. In addition, the amount of soil erosion in no-till farming is reduced from 9 tons per acre to 2.5 tons per acre. The amount of evaporation is significantly reduced, which is so important to draught prone areas of Ukraine. Most of the Ukrainian grain tour participants in USA felt they could go to low-till (surface-till) or no-till farming with their current or modified equipment. A full pledged no-tilling technique as seen in USA, if replicated in Ukraine, could result in savings of Hr. 200/hectare.
- The group showed their interest in the anchor drill seeders, which can be locally produced and replicated. The accuracy of seeding and plant spacing is very important factor for getting a higher grain yield.
- The use of 100% profitable "Roundup Ready" - Genetically Modified Seeds (GMOS), pesticides and herbicides, various fertilizer products from Monsanto and other major agro-industries would have great benefits to the farms as it would reduce both fuel and labor costs. It would be necessary to use transgenic seeds, which are resistant to European corn borers causing serious havoc to corn growers in Ukraine reducing over usage of chemical pesticides.
- Land reclamation and soil conditioning technique as seen in USA using GPS technology are great learning that Ukrainians are interested to replicate. Given the fact that Ukraine is a country with 5% land having salt deposits, fortunately is also one of the few countries with advanced space research facilities. It is important that GPS technology be developed locally and used for

agricultural usage.

- Seed calibration technique as used in USA by major seeds manufacturers, if replicated in Ukraine, could increase grain production and also efficiency by 15-20%.
- The group vowed to increase soy cultivation by developing right kind of seed, suitable to the local climatic conditions. Most Farm executives now plan to specialize on corn and soybean because of their higher prices (Hr. 700/ton) and higher protein content, especially for fodder for the cattle. Even though the Soy seeds are expensive (Hr. 1,500/ton) has the added advantage that is it high in protein and adds nutrients to the soil, unlike sunflower (which depletes nitrogen from soil) - a traditional crop in Ukraine.

Legal, Organizational and Management:

- The participant from the Oblast Agricultural Administration vowed to set up: a) Legal-aid service for the farmers; b) Provide Market Analytical Services for boosting trade and sales; c) An accurate weather forecasting service geared to farming needs.
- The participants had an opportunity to visit one nationally important trade association and one cooperative. They were convinced that organizations such as these would have great benefits in Ukraine to reduce overhead costs, improve technology and expand their overall marketing skills. They were determined to set up similar organizations upon their return to Kharkiv.
- The farm executives noted that U.S. farms were more specialized and grew 2 or 3 crops. By following the U.S. example, each participant felt that they could substantially reduce their costs of production and improve their profitability by 40 to 50%. In contrast, the government at the oblast (state) and rayon (district) level now instructs the farms which crops they are to grow. Typically each farm is required to grow 7 to 9 different crops. This requires that each farm have equipment, seeds, fertilizers, herbicides and management for each crop, which is a major drainage of resources.

Sales and Marketing:

- Ukraine has 35 Commodity Exchanges (including 2 in Kharkiv). However, Ukraine doesn't have futures market like Chicago Board of Trade (CBT). One of the important objectives was to impart a first hand exposure to the workings of functioning market that safeguards horrible fluctuations that can cripple the entire grain industry. The two participants in the group involved with future market development needed enormous amount of information, to replicate back home similar trading houses, where big international traders could eventually participate. This would create a healthy domestic and international market. It was also important to develop concepts of forward contracting and hedging in Ukraine. The group in general learnt agricultural commodity practices, mechanism of pricing and sales aspects.
- The participants noted that products produced by US farmers are very competitive and hence Ukrainians felt the urgent need to reduce their overall production costs and change their mode of operation from pure farmers to able and successful businessmen.
- Use of Grain Dryers for upgrading and conditioning of harvested crops is an important technical and business learning. In the absence of grain drying, the loss due to molds and moisture amounts to 30%. Whereas, the upgraded and improved grain with higher gluten content can gain 200% in price. Grain price needs to be achieved by developing improved drying and storage facility at the farm.
- Availability of farmer's own storage capability determines farmers bargaining power for selling grain. It also avoids grain loss (15-20%) as incurred by transportation to a grain silo that traditionally formed the old state controlled storage concept and replaced by the same structure with a so called "privatized face". It is of paramount importance to farmers in new Ukraine, to have his own storage silos as a major strategic marketing investment. The group was glued to the low cost

Silo manufacturing operation in USA, so necessary in Ukraine now.

The overwhelming conclusion of these exit interviews was that there should be less government control of the industry and that the farms should be able to make their own financial decisions. As a result, without additional investment, the farms would be able to increase their productivity and profitability, resulting in an improvement in the farm standard of living.

This Management, Technology and Marketing (MTM) Productivity Study Tour program for Kharkiv, Ukraine consists of four study tours this fiscal year 2003. This report describes Tour #1 for the grain producer sub-sector.

The purpose of the program is to give rise to a rapid and visible increase in living standards for the Ukrainian population as a whole by introducing key Ukrainian managers in key industrial and agricultural sub-sectors to modern management, technology and marketing methods in the U.S. The Center for Economic Initiatives (CEI) selected three programs for agricultural sub-sectors (Grain, Aquaculture and Animal Husbandry), one for Agricultural Machinery, in order to introduce the benefits of this Marshall Plan type technical assistance program to Ukraine. All of these sub-sectors produce products that are basic to the needs and growth of the Ukrainian population.

1.1. Major achievements of the program for the Ukrainian companies were:

- New and modified products and technologies were identified that can easily be added to existing practices with limited investment;
- An awareness and appreciation of new management techniques;
- Many productivity changes were learned that would increase product production costs and increase productivity;
- A greater appreciation of the role of transportation, storage, distribution, marketing, merchandising and dynamic fair price payments to all concerned;
- New products and equipment they can purchase from the U.S.
- A greater openness and awareness of changes they can make in their own farms.

The study tour group included 11 high-level farmer participants, 1 R&D Manager, 1 grain market expert and 2 agricultural officials. Under the direction of the Program Director, the group of 15 visited 26 organizations over a five-state area. The tour area covered Ohio, Kentucky, Illinois, Iowa and Missouri, which was quite adequate for grain producing sub-sector.

The sites visited were carefully selected to meet the diverse needs of the group. Since the tour group represented different sizes of businesses and profiles, each participant visited some plants or organizations that were within their area of interest. Moreover, there was much to be learned on every visit since management, marketing and distribution were common to all.

The host company determined the length of each visit. In almost all cases, the visits were scheduled to last three hours and were planned for the morning or afternoon. At each site there was a short introduction by management followed by a tour of the facilities. A question and answer period followed. In almost all cases, this was an extremely lively session and extended far beyond the initial schedule. The U.S. hosts were extremely generous with their time and information. Were it not for the need to maintain schedules, many visits would have been significantly longer. The enthusiasm of the participants rubbed off on the host companies and many offered to host future programs.

During their stay in the U.S., the group visited 2 grain purchasing, processing storage and transportation facility; 4 grain farms; 1 co-op feed plant; 1 co-op agronomy service operations; 1 educational institution; 1 state agricultural marketing regulatory and organization; 1 natural pest control management R&D station; 1 mercantile commodity trading market; 2 giant agro machinery manufacturers; 2 international seed developers and genetic engineering R&D operations; 1 grain association; and 2 grain storage and dryer manufacturing operations. In addition, they heard lectures from various experts on a variety of subjects. A description of the individual host organizations is included in this report. As a result, the participants were able to get a very broad view of their industry in the US.

The length of the tour, 20 days, appeared to be just about right. Time was needed for the new concepts to be fully understood and appreciated. Few participants would have been able to be away for a longer period of time.

Just as previous tours, when the group first arrived in the U.S., they had various fixed ideas about conducting their business. Although the participants were looking for new ideas, they were not necessarily open to new ideas. By the end of the tour, this attitude had completely changed. Most were eager to return and try out new ideas and products. The evolution in thinking was remarkable.

One of the frequently asked questions was "How do the Americans make the grain products at such a low cost?" Almost every host company discussed the importance of increased volume to drive down costs. This implied a greater need for effective mechanization, marketing and for specialization. These were exactly the opposite of the business thinking in Ukraine as each farm struggles to diversify into as many different crops and even product lines.

A surprising degree of bonding took place between the tour members. At the conclusion of the tour most agreed to meet again and possibly form some trade information exchanging association. Several were exploring business arrangements, among themselves.

Some of the participants expressed serious interest in American products and reproducing or modifying similar equipment back home. The Program Director has agreed to facilitate communications between Ukraine and the American companies, if such an interest materializes.

At the conclusion of the study tour the group was interviewed in depth to record what they had learned and to measure the potential impact of the tour on their individual farms. CEI was pleased to learn that all had concrete plans to introduce productivity improvements to reduce their costs of production, add new products to their lines, and institute management changes. These findings are recorded in the Evaluation by Tour Members included in this report.

This Marshall Plan type grain study tour was deemed a great success by all the participants and by CEI. Only by seeing with their own eyes, were these industry leaders able to learn new techniques and discover new products they could apply or reproduce back in their firms without the need of large new investments.

Study Tour Participants Visit US Companies

Ukrainians with Dr. Joe Kovach and Dr. Deborah Stinner at the IPM Experimental Fields, Wooster, OH

Ukrainian Group at the IPM Experimental Green House, Wooster, OH

Visitors at the ODA's Food & Agricultural Labs., Reynoldsburg, OH.

The Group with Prof. Tweeten at the OSU, Columbus, OH.

The Ukrainians Visiting the Grain Drying Equipments at the Beard Industries, Frankfort, IN.

Ukrainians at the John Deere Operations in Moline, IL.

Grain Producers Study Tour
Program Narrative

2.0. INTRODUCTION

2.1 Overview

During the period of May 26 to June 15, 2003 a group of 15 participants (13 men, 2 women) belonging to 14 different organizations related to grain producing agricultural enterprises from the Kharkiv region visited Cincinnati, Ohio and various other cities in Ohio, Kentucky, Illinois, Iowa and Missouri as a part of a 20 day study tour of their related business. Viktor Kostenko was designated as leader of the tour group. USAID Grant #121-G-99-00728-00 to CEI financed the tour. This was the first of four tours financed under this grant this fiscal year 2003.

The tour was under the overall direction and leadership of Leland M. Cole, CEI's President. CEI appointed Program Director Dr. Belal U. Siddique who worked out the detailed program with host enterprises, selection arrangements, implementation and accompanying the group to various sites. Everyone felt the program was a great success.

2.2. Background

After W.W.II, America helped rebuild Western Europe through the Marshall Plan Program. European economies had been damaged and destroyed, the productivity of industry was low, and standards of living had plummeted. Through the Marshall Plan Program, not only did the US provide grain, steel and other essential raw materials, but also provided technical assistance on a large scale. More than 24,000 Europeans visited the US to learn about the modern ways in which industry operated.

The former Soviet Union (FSU), including Ukraine, today suffers from a scarcity of cost-oriented management and marketing capabilities. Most managers usually focus on production and new equipment, rather than on market-oriented tasks. It is essential that Ukrainian management understand that marketing and productivity enhancements are central to the improvement of their living standards and availability of low-cost consumer goods. The Center for Economic Initiatives, (CEI) based in Cincinnati, applied for and received a grant from USAID to bring high level managers from the agricultural farms of the Kharkiv region in Ukraine to the US for training. This program is similar to the original Marshall Plan Technical Assistance Program.

This total funded program consists of four tour groups. The first tour completed was for the Grain Producers sub-sector from Kharkiv area. The second tour for aquaculture, third tour for livestock and the fourth meant for Agriculture Machineries sub-sectors - all from the Kharkiv area.

Most participating managers have never been outside the former Soviet Union (FSU) and have virtually no experience with the workings of a market economy. The task was to help them learn new techniques that they could re-apply in Ukraine. Towards that end, CEI arranged a program that took the Ukrainian managers to farms, equipment manufacturers, government agencies and associations in Ohio, Kentucky, Illinois, Iowa and Missouri. These are agriculturally and industrially developed states with good agricultural farming industry from which to select suitable host organizations.

During their visits to these US organizations, the Ukrainians are able to learn improved techniques in production, marketing, and management. These skills will make the Ukrainian companies more responsive to the needs of the Ukrainian domestic market, and more attractive for trade and investment with U.S. and other foreign enterprises.

2.3. Program Implementation

The study tour group visited 19 organizations and attended various seminars and social functions spread over 11 cities/towns located in 5 states. We could not have been more pleased with the reception and hospitality given by host organizations. High-level U.S. company officials made themselves available for extensive discussions and were genuinely interested in providing study tour members with all the information requested. Several had done independent research on Ukraine before arrival of the group.

3.0 SUMMARY EVALUATION OF PARTICIPATING TEAM

Although they came from diversified farming backgrounds, they had a significant positive experience from the tour. It was an active tour group with a voracious appetite for learning. At times, the group was late for the next appointment because question and answer sessions were active and lengthy. Sometimes 2-3 hours per plant visit was not enough time.

In general, tour members were cooperative and positive minded. They participated actively in group discussions and asked a great many good questions not only about the farming industry but also about life in the U.S. in general. They took notes, and an enormous amount of photographs and material back home. Initially, we had a few skeptics as usual, but the end of the tour genuinely converted them to true optimists. The total experience of seeing American industry and culture close-up over a period of 20 days, made a significant difference to many group members, although processes and perceptions were different than what they had earlier heard about America.

4.0 MISCELLANEOUS TOPICS / COMMENTS

4.1 The tour group had an excellent interaction with the Program Director and other CEI members. Information was provided to the maximum on all possible topics.

4.2 On most of the farms and plants the group visited, technology was better than that used in Ukraine. Major differences were the sophisticated technology, methodology, management, organization, and the culture of running an enterprise for profit.

4.3 In a related industry, many members thought their fuel costs, energy waste and losses were higher than the U.S. average.

4.4 Formal Training Certificates were handed out to all participants upon completion of the tour at the final dinner reception.

4.5 The participants were reminded that after their return to Ukraine, CEI would be pleased to answer questions and gather additional information they may request. It was suggested that e-mail would be the best way to communicate between the two countries.

4.6 The tour participants brought a number of gifts from Ukraine that they gave to host organizations, consultants and others.

5.0 SUMMARY CONCLUSION/POSITIVE FINDINGS OF THE PROJECT

Judging from the comments of tour participants, the experience was extremely positive and worthwhile. Many new ideas for replication were gained, not only in production, but also in marketing, distribution, land administration and management as well. This will, CEI believes, help lift the fortunes of these farms that must operate in a very difficult Ukrainian economic environment. This can only help to increase the living standards of the Ukrainian population.

We were also greatly encouraged by the bonding that took place between tour members who found they could trust one another. There appears to be a genuine interest in working together in the future. They plan to establish an information sharing association, and we believe this organization can have a beneficial effect on the entire industry.

A key objective of the program is the dissemination within Ukraine of the information learned. CEI stressed this throughout the tour, and we believe tour participants are truly dedicated to seeing this come about. We will follow-up on this during CEI's post-tour visit to Kharkiv.

6.0 PARTICIPANT SUGGESTED TOUR PROGRAM IMPROVEMENTS

- Two or three types of professionals from each farming category should be included: such as agronomy, technology, marketing, management etc. (Some participants suggested that fewer professionals be included. Others felt the balance was just right.)
- To affect any policy level change in the Ukrainian agricultural industry, national, oblast and rayon level officials should be exposed to this type of program.
- A group consisting of agro product distribution and transportation specialists could be organized.
- Internships could be organized for agro management and commodity marketing, students from Kharkiv Dokuchaev Agricultural University and other Business Schools.
- More groups consisting of crop cultivators, silo operators and animal farms are necessary for inclusion in these types of visits. We may include other participants who have already interviewed and were very qualified candidates.

7.0 SUMMARY DESCRIPTION OF MAIN PROGRAM ACTIVITIES

The following comments provide additional information on each of the activities and organizations visited.

Wednesday, May 28, 2003

Cargill Kellogg Farm Service Center, Cincinnati, Ohio

Richard Moreland (Area Manager) cordially received the Ukrainian group.

The group visited this facility to see efficient transportation, grain processing, storage, and barge loadings, which are important factors in moving and marketing the locally produced grains domestically and internationally. Cargill also uses rail services to haul grain, soybean meal, flour, salt, fertilizer and liquid commodities throughout the United States. Operating a leased fleet of hopper and tank cars is slightly more expensive than barge transportation.

Cargill, headquartered in Minneapolis Minnesota is an international marketer, processor and distributor of agricultural, food, financial products and services with 85,000 employees in 60 countries. Quality processing and food safety are two areas of critical importance to the company. Over its 130 years history, Cargill has developed a unique set of core capabilities, including worldwide sourcing and trading, commodity storage and handling, transportation, processing and risk management. Cargill is a major buyer and trader of grains, oil seeds and other agricultural commodities. The company maintains a network of 800 offices throughout North and South America, Europe, Africa and the Pacific Rim.

Merchandising grains and oilseeds begins with Cargill's country elevators, located at this type of facility. This system allows Cargill to purchase harvested grains and oilseeds directly from farmers, store them until marketing opportunities emerge and then ship the commodities in bulk to points of demand around the globe. Cargill operates both owned and leased facilities and transportation systems to ensure economical and efficient distribution. A close working relationship among geographic locations allows traders to share the information and resources that keep Cargill customers continuously linked to market opportunities. Cargill seeks the most efficient and economical modes of transport to move bulk commodities from point of origin to point of consumption. To manage transportation logistics, Cargill relies on a complex network of rail and road systems, inland waterways and ocean-going routes. Because of the great volume of merchandise to be transported, Cargill utilizes a combination of its own fleet and transportation services purchased from outside sources.

The facility in Cincinnati has automatic and mechanized elevators built on the banks of the Ohio River with a good barge loading capability managed by only 3 persons. Elevator facility at this location has storage capacity of 526,000 tons. Local farmers from 10 counties in Ohio using trucks and train wagons readily access the elevators and sell their grain to Cargill directly. As soon as the truck load of crop arrives at the facility, random samples are tested for moisture contents, weighed and graded accordingly. The information is immediately processed in the computer and the truck driver receives his check from this nearly paperless business transaction, which takes not more than 1.5 minutes. Additional physical unloading of grain at the crop receiving point takes 2.5 minutes. Thus the total time for this particular unloading is only 4 minutes. This is an example of an exceptionally high standard of service rendered to the local farmers. Once the grain is received, it is being dried and processed for barge loading.

This facility can load 375 barges/year (each barge can hold 1,400 tons of grain), which are towed down the Ohio River into the Mississippi and then on to New Orleans taking 15 days. Almost 90% of the

grain received here goes for international export via New Orleans. New Orleans grain port (via Gulf of Mexico) handles the bulk of the grain export of United States.

We were told that Cargill is also an experienced financial/technical services provider in the global grain market place involving risk management and investing. The Financial Markets group (FMG) supports Cargill and its subsidiaries with financial products and services that address the full spectrum of market conditions. These include financial instrument trading, money markets, value investing and trade and structured finance. Cargill Investor Services (CIS) is a futures/futures options broker and risk management consultant. The company is a clearing member of major U.S. and international futures and options exchanges, with the added resources to represent commercial and institutional clients on all futures and options exchanges worldwide. CIS specializes in trading futures and options for financial, agricultural, energy, metals and soft commodities. With offices in Singapore, Chicago, New York, Kansas City, Tokyo, Paris, London and Minneapolis, CIS and its affiliated companies serve individual investors, multinational corporations, international banks, energy suppliers, agribusinesses, portfolio and fund managers, and investment banking firms.

Greenwich Marine, a division of Cargill Marine and Terminal, meets some of the company's ocean-shipping needs by chartering vessels for Cargill entities worldwide. Cargill also brokers freight on ships either owned or chartered by Cargill to non-Cargill entities. Rogers Terminal & Shipping, another Cargill Marine and Terminal division, provides stevedore services to both Cargill businesses and outside companies on the East and West Coasts and inland waterways in the United States. G&M Stevedoring, based on the Gulf of Mexico, also provides services to Cargill and non-Cargill businesses. Another division of Cargill Marine and Terminal, Cargo Carriers, operates jumbo dry and liquid cargo barges on inland waterways in the United States.

Learning for the Ukrainians**:** Effective and productive transportation methods, grain receiving, quality control testing, drying, standardization and merchandizing, elevator management, customer relations, pricing and quick payments to farmers, and concepts of future trading.

Heyob Farms, Harrison, Ohio

Dennis and Mike Heyob the two brothers along with members of their immediate family received the group. The Heyob brothers started a family farming operation in 1967. Initially, they started with hog and corn operation (including a corn grinding facility) but soon after, hogs were discontinued. Initially, they started with 500 acres of land and expanded into 1,300 acres. Some lands are leased from absentee farmers who have moved to the city. Not all their farming operations are located in one location. However, the single largest piece of land is located in Harrison Ohio and is 150 acres. Approximately 540 acres of lands are cultivated for yellow corn; 580 acres for soybean, 80 acres for sweet corn and rest are used for hay, vegetable gardening and cantaloupe growing.

The farm does not take any bank credits except for land leasing and acquisition. The Ukrainian group was shown the farm's facility including: combine harvester, heavy tilling, seeding, spraying, fertilizer distribution equipments, repair shop, silage and elevators.

Learning for the Ukrainians**:** Productive crop growing methods used by a mid-sized farmer – limiting to growing corn and soybean, maximizing equipment usage, grain marketing, crop drying, and sharing information about pricing.

Thursday, May 29, 2003

Miller Farm, Portland, IN
The Ukrainian group was met by the entire extended Miller family. The event was well prepared and for the Millers this was the first time that a foreign group of agricultural experts have ever visited their operations. Millers are a mid sized family owned farming operation mainly comprising of Greg and Shirley. The farm specializes mainly in: corn and soy.

Millers were helped by a professional agronomist - Dave Taylor from Bryant Co-op, who explained various detail farming practices being used in this part of Indiana. The Millers also organized demo for the guests a full scale no-tilling agricultural seeding practices involving soy cultivation using state of the art John Deere seeder, which was the first of a kind experience for the Ukrainian group in USA. Millers cultivate "Roundup Ready" corn and soybean seeds with no tilling farming practices. Millers insisted that our Ukrainian guests practice no-tilling cultivation, because it reduces soil erosion, increases crop productivity (in particular soybeans), results in cost savings on inputs for farmers, saves time, and in overall a farmer can handle more acres efficiently.

Every Ukrainians had dozens of questions and Greg Miller never anticipated that Ukrainians would be such a voracious group of learners. This was a first hand look at how prosperous farmers in USA run their farming businesses. Greg also showed the Ukrainian guests various agricultural machineries that he uses and his state of the art grain storage and conditioning facilities.

The farm has approximately $2 million worth of fairly up-to-date agricultural equipment. They have their own equipment maintenance facility. Their grain production is good and comparable with national standards: 190 bushel/acre for corn, 35-40 bushel/acre for soybean. They have no debts and do not take loans from banks.

Learning for the Ukrainians**:** Productive crop growing methods (limiting to growing corn and soybean), no tilling conservation farming concept (reducing fuel cost and reducing top soil loss), crop specialization, use of GMO roundup ready seeds, maximizing equipment usage, grain marketing practices, and sharing information about pricing and use of good grain conditioning.

Friday, May 30, 2003

Southwest Landmark (Land O'Lakes) Feed Plant, Washington Court House, Ohio.
Keith Noble (Plant Superintendent) received the group.

Land O'Lakes, Inc. is a national food and agricultural cooperative serving family farmers from the East Coast to the West Coast. Southwest Landmark is an Ohio subsidiary of the Land O'Lakes, Inc. headquartered in Arden Hills Minnesota, a suburb of St. Paul and Minneapolis. Land O'Lakes processes 12 billion pounds of milk annually and markets more than 600 dairy products across the United States and throughout the world. They also provide 1,100 member cooperatives with production materials including feed, seed, crop protection products and plant food.

Land O'Lakes is owned by and serves more than 11,000 producer-members and nearly 1,100 local community cooperatives—fulfilling the production requirements of 300,000 farmers and ranchers. All Land O'Lakes members—both local cooperatives and individual producers—are owners of the cooperative and participate in a democratic process by which they have direct connection to the policy decisions and direction of the organization. All members also share in the profits of the company, based on their business volume. Land O'Lakes food products—primarily dairy products—are found in

supermarkets and food service establishments such as restaurants, hospitals and airlines across the nation and are used extensively by food processors. A 24-member board of directors elected by the actual participating cooperative members governs Land O'Lakes. Land O'Lakes employs more than 6,500 people and operates more than 200 processing, manufacturing, warehousing and distribution facilities across the United States. Land O'Lakes's annual sales exceed $5.6 billion. The company has total assets of $2.7 billion and total equities of $769 million. Land O'Lakes is a leading marketer of dairy, beef and swine feed, alfalfa seed, plant food, and crop protection products in their trade area. They are the nation's number-one marketer of branded butter and deli cheese.

Ukrainians were explained the basics of cooperative movement in Ohio. A cooperative (or co-op) is a particular type of business owned by and run for the benefit of those making use of its services. A number of farmer-owned cooperatives are familiar to millions of American consumers. Land O'Lakes, Ocean Spray, Welch's, Sunkist, among others, are all various examples of cooperatives that market products produced from the raw materials supplied by their farmer-members. These co-ops often are referred to as "producer cooperatives." "Consumer cooperatives," on the other hand, sell products to their co-op members. Land O'Lakes, while primarily known as a producer cooperative to a majority of Americans because of its famous line of dairy products, also serves as a consumer co-op to many of its farmer-members. Land O'Lakes sells feed, seed, and agronomy products to farmers through a network of more than 1,100 independently owned and operated local farmer cooperatives in 29 states.

This Feed Plant is a subsidiary cooperative operation owned by 5,000 farmers from 7 counties in Ohio. This operation produces 50,000 tons/year of feed using 120,000 bushels of corn and 30,000 bushels of oats, soybean meal (procured from Cargill or ADM) and mineral supplements. Landmark does not have a soybean processing operation here and hence prefers to buy. This feed plant has been in existence for 34 years and employees 18 people. Supplements used in the feed constitute 1/4th of the total content that keeps the vitamin, protein and mineral balance for the animals. The feed from this plant is mainly used for locally raised pork.

Learning for the Ukrainians**:** Concept of effective agricultural cooperative movement in Ohio and USA, effective feed production methods for animals and livestock, grain receiving, quality control, elevator management, customer relations, pricing and farmers participation.

Southwest Landmark Agronomy Plant, Wilmington, Ohio

This is a fully developed agro-service center catering to the custom needs of local farmers under the same concept as a cooperative. This center provides high quality seeds, chemicals and fertilizers. The facility has a fleet of spraying machines and various specialized vehicles to carry out all kinds of custom plant protection and fertilizer spraying work for the farmers.

The company is one of the leaders in developing high quality, competitively priced farm products and in supplying them to growers. Agricultural products include a wide variety of feed, seed, fertilizer, and other goods and services needed by producers.

This is a fully operational resource center for farmers, involving fertilizer, grain, agro-chemical and seed. It provides comprehensive agro-services to farmers in neighboring counties. Custom orders involving fertilizer application services (both dry and liquid fertilizers) are provided to farmers. During seeding and growing season, many local farmers pick up dry fertilizer using their own vehicle. This facility sells agro-products either in bulk or at retail to various farmers. Facility also extends its transportation and equipment for leasing. Traditional crops that require various kinds of services are soybean, corn, tobacco and hay.

Services that are provided from this center:

- Animal Nutrition
- Feed Phosphates
- Fertilizer (Dry and Liquid)
- Seed Grain (Regular, Hybrid, GMOS)
- Technical Services (Agro-Chemicals)

Facility uses its experience and prominence as one of the leading shippers of bulk commodities to ensure on-time delivery. By managing both production and transportation, they can deliver quality products to a farmer's doorstep without involving a middleman.

Satellite technology – Global Positioning System (GPS) is being provided here for precise farming needs. Satellite-aided precision agriculture is helping to make "farming by the foot" more and more commonplace throughout the Land O'Lakes agriculture services territory. Land O'Lakes works with member cooperatives to help farmers assemble the correct products and other resources to meet their agronomic needs. The Ukrainians were surprised how the GPS system helps to locate problems and control the spraying of pest and the rational use of herbicides and fertilizers.

Learning for the Ukrainians**:** How to provide on call basis centralized services related to agro-chemical (insecticide and pesticides) and fertilizer to farmers using high quality equipment and modern technique. Use of Global Positioning Systems (GPS) for: crop diagnostics, selective and rational usage of pesticides, fertilizers and other agro-chemicals.

Mike Farm Enterprise Inc., Dayton, Ohio

Peggy Clark received the group. Mike the farmer (husband and father) excused himself because of his busy seeding schedule in the fields, which became necessary after prolonged showers in the local area during spring, hampering seeding efforts. It was essential to take advantage of a window of opportunity. This is a sprawling family farming business with 2,500 acres of cultivable land and is being managed by only 3 people. The main crops are soybean and corn with some wheat grown on 100 acres of land. The farm practices no tilling cultivation on 90% of its land. The price for corn has been somewhat the same for the last 46 years and this seems to be a difficult situation for farmers. The Ukrainians were told that the Clark's two sons graduated from Purdue University and earn more money working in the city than working on a farm. It has become difficult to keep the new generation of children farming, even though it has become highly mechanized. In 1971-79 they had a 20% return on investment but the average return for the last 46 years is about 7 ½ - 8%. The farm has an excellent infrastructure with an elevator storage capacity of 300,000 bushels and with efficient modern drying equipments. They used to raise animals but the operation has been discontinued because of the closing of meat processing facility nearby. Their average crop production in recent years was: corn (135-140 bushels/acre), soybean (47 bushels/acre) and wheat (80 bushels/acre). They help the city of Dayton with environmental disposal of their processed waste on their 100 acres of land currently being used for cultivation of wheat.

Because of the expansion of Dayton city limits and growing housing needs, farmlands are rapidly being depleting with higher prices for speculative real estate land. The farm owners believe that soon the farming business will be over and they hope to sell the lands and make more money in real estate. The farmers believe that "hobby farming" (pumpkin, strawberry) are another way to survive next to large metropolitan areas.

Learning for the Ukrainians**:** Productive crop growing methods (limiting to growing corn and soybean), no tilling farming concept (reducing fuel cost and reducing top soil loss), maximizing equipment usage, grain marketing, and sharing information about pricing. Usage of processed waste on farming land, reducing fertilizer costs. Concepts of "hobby farming" or diversifying into real estate land speculation as alternatives for farmer's survival in USA.

Monday, June 02, 2003

Schwenke Brothers Farm, Union, Kentucky
Bob Schwenke received the group. This is a family enterprise with two farms eight miles apart with a total cultivable land of 1,000 acres. The farm in Union has 350 acres of land. They own 600 acres of their own land and rest are being leased from absentee owners. They grow corn (525 acres), soybean (430 acres), tobacco (8 acres which gives approximately 24,000 lbs of harvest) and alfalfa hay which is grown on 40 acres of land. They do some vegetable farming for their personal use. They also raise cows for limited personal use with no hormones in their diet. The farm has an elevator storage capacity of 96,000 bushels, a repair shop, and sophisticated farming equipment. The farm has a special computer hook-up with a weather monitoring capability using Doppler radar for the local area. They can also track prices at the Chicago grain market. They sell their grain to the nearby ADM grain terminal.

The Ukrainians in this farm saw mainly crop production practices and heard about various marketing techniques used. The group was shown how they track Chicago Futures Market and explained how they sell their grain. It was very important for the Ukrainians to understand that being farmers alone with quality farming is not good enough; they have to be good businessmen too managing huge operations. This implies to transportation, storage, grain conditioning and marketing.

Learning for the Ukrainians**:** Productive crop growing methods (limiting to growing corn and soybean), no tilling farming concept (reducing fuel cost and reducing top soil loss), maximizing equipment usage, grain marketing, and sharing information about pricing. The group saw how to raise livestock without any kind of hormonal additives in the feed.

ADM – Countrymark Barge Operation, Cincinnati, Ohio
Rick Bauwens received the group. ADM has two facilities on the river Ohio, one on the Kentucky side and the other on the Cincinnati side, both of which the Ukrainians visited. Both of these facilities were built in 1960 and buy corn, soybean and wheat from local farmers in Kentucky and Ohio. The size of the operation very much depends on the export capability of ADM in the international market. The storage capacity of these two facilities is 1.6 million bushels in Cincinnati and 390,000 bushels in Kentucky. The grains are received in Cincinnati by rail and truck. However, the Kentucky facility receives grain by rail only. Two buyers and one accountant located at the Cincinnati facility are responsible for the business operations of the two locations. The total number of employees managing these two operations is 6 in Cincinnati and 3 in Kentucky. Usually the 1st busy business period for grain receiving is September-November and the 2nd period is December-February. Once the grains are received at the terminal they are graded by a 3rd party agent, dried, stored at the elevators and then ultimately loaded onto the grain barges for shipment to New Orleans via the Ohio and Mississippi rivers. The Ukrainians were told that a grain operation is a very competitive business and requires good customer relations with the farmers and buyers. The parent company ADM usually provides the merchandising services concerning the sale of grain. This involves 90% advance money drawn from

the buyer and transferred to ADM before the grain is loaded onto the barge. Once the grain is unloaded and inspected at New Orleans the remaining 10% is settled.

Learning for the Ukrainians**:** Effective and productive transportation methods, grain receiving, quality control testing, drying, standardization and merchandizing, large elevator management, customer relations, pricing and quick payments to farmers, and concepts of future trading.

Tuesday, June 03, 2003

The Ohio State University, Columbus, Ohio

Professor Luther Tweeten, at the Dept. of Agricultural, Environmental and Development Economics received the group. He informed the Ukrainians that his department is the 2nd largest in the university with a student body of 1,600 (undergraduate and graduate). Almost 300 students receive their bachelor's degree every year. Specializations include agro economics/business, entomology, agronomy management, animal science etc. In recent years, more and more students come from non-farm backgrounds and many are women. Post-industrial agro business emphasis is on service activity as opposed to traditional agricultural activities. Farmers in the old system wanted to know how to sow seeds etc. Now, the stress is on agro service activities such as marketing, management, finance, buying and selling of assets, MIS work involving computers etc.

He discussed agro related education and reflected his forecasts on the American agricultural scenario for the next generation to come. His expertise is in agricultural policy and economics. He has traveled to many countries (including the ex-USSR) and has been advising many developing countries too. His colleagues have been advising and formulating agro policy for Romanian privatized farmers. He was raised in an Iowa farmer's family and spent all his life involved with agriculture.

He was very frank and conducted an open discussion for 2 hours involving various issues that American farmers face. Most US farmers blame the agro business for their economic problems. According to many US farmers, 1910 and 1914 were the most two prosperous years for agriculture. However, Professor Tweeten thinks that it is the agro businesses that have expanded the US farming operation globally to a different new direction. He thinks that the total volume of resources used has remained the same, but now the farmers get now 4 times the production. He thinks that agriculture is becoming more mechanized and hence less labors intensive, more cost effective and therefore highly productive (4 times). Much of the time a US farmer spends is off the farm - increasing the overall quality of life in general. He also feels that it is the agro business's value added products and services that are gaining more economic prominence and generating more jobs. It's obvious that age-old physical agricultural labor is being replaced by new jobs involving sophisticated crop management expertise that use computers and Global Positioning Systems (GPS) etc. Also, more people are involved in the research, development and marketing end of the business. Obviously the giant agro business is helping the farmers and the US economy. He predicted that it would be the agro businesses that would determine the shape of the farm size in the USA. As for an example, he cited that John Deere has come out with a new harvester that can handle 6,000 acres of land. Translated in simple economics, smaller farmers with less than 6,000 acres of land would soon have to leave farming and sell them to a bigger farmer and a process of consolidation would follow.

He was an active proponent of Genetically Modified Seeds (GMOS). He feels GMOS will replace the low yield traditional seeds and very much in line with economic justifications based on scientific advances of modern agriculture. According to the budget data at Ohio, corn (no-tillage) has the highest productivity. Approximately 5 million acres of land totaling 35% of the total are cultivated for various

crops using no-tilling or conservation tillage. It reduces energy consumption, machinery, time, and cost of production. Land erosion rate has been reduced in American agriculture from 1930's when it was 9 tons/acre to 2 tons/acre using present day no-till or other conservation methods. All these tillage methods would not be possible without using herbicides. However, in many situations particularly, if the spring soil is cold and wet, no tillage results in low germination. Modern agriculture in America is moving towards specialization. There is a small alternative culture, which is pushing a move back towards multi-faceted production. Livestock constitutes half of US agriculture. Livestock production is moving towards hubs and there are now only 30 hubs in the USA. Crop farmers are specializing in crops and animal husbandry is concentrating on animals. Production contracts are common. Manufacturers provide small animals, veterinary services and feed, while the farmers provide their time and place etc. Today, a farmer spending only 1 hour/day can raise 1,000 hogs. With assistance for one full year a farmer can raise 20,000 hogs.

He advised the Ukrainians to optimize their products using linear programming techniques, which are widely used in the USA, depending on land, capital and markets. The Ukrainians were very pleased with Prof. Tweeten's presentation and his knowledge of agriculture and extended to him an open invitation to visit Ukraine some time in the future.

Learning for the Ukrainians**:** New agricultural methods, agricultural tendencies and prognostics, agro education trends in the universities, role of agro-industry and its positive contribution to US agricultural economy.

Ohio Department of Agriculture (ODA), Reynoldsburg, Ohio

Bruce Benedict, International Marketing Expert received the group. The Deputy Director of ODA Joseph Haines also met the group and talked briefly. Many experts at ODA gave talks to the group explaining the role they play in state agricultural activities. The ODA provides regulatory protection to producers, agro-businesses, and the consuming public; promotes Ohio agricultural products in domestic and international markets; and educates the citizens of Ohio about agricultural industry. The ODA is the 2nd oldest state agency and was formed in 1846 to establish agricultural fairs and promote farming. Today, the ODA serves as an administrative branch of state government and is responsible for enforcing state laws primarily in the areas of food safety, animal health, and pesticide use. The ODA also oversees county and independent fairs, and helps assure the safety of amusement rides. In addition, the ODA is the custodian of the primary weights and measures standards in Ohio and helps farmers and food processors market their products.

ODA's main roles are:

- Regulate industries
- Educate industries
- Implement state and federal laws
- Promote Ohio industries domestically and internationally.

The Department's workload is distributed among the following divisions: Administration, Amusement Ride Safety, Animal Industry, Consumer Analytical Laboratory, Dairy, Enforcement, Food Safety, Markets, Meat Inspection, Plant Industry, and Weights and Measures. There are 400 employees including a field staff in 88 counties in Ohio.

The Ukrainian grain group was informed that:

- Agriculture is the Ohio state's number one industry. This is a very diverse industry.

- It constitutes $73 billion/year
- 1 out of 6 persons are employed in agribusiness (this includes farmers and processors).
- There are 70,000 family farms and they could be between 300 acres – 6,000 acres.
- There are 265,000 milking cows, 1.2 million cattle, 1.5 million hogs, and 142,000 sheep in Ohio with total worth of $1.3 billion.
- 200 different crops are produced for commercial use.
- Ohio is one of the top 10 producers in the USA.
- Soybean and Corn are the largest crops. Wheat comes next.
- Ohio is the country's top dairy producer.
- Ohio is the 8th largest hog producer.
- Ohio is the number one producer of eggs.
- The state exports $1.6 billion worth of processed food products per year.
- Canada is the #1 market followed by Japan.

The group visited the Consumer Analytical Laboratory, which tests sample products to make sure they are disease and pesticide free. The group also visited the animal testing division, general chemistry department, the analytical division and the biological division. The visitors were shown how the automatic GCMS, AAS and other equipment run in the lab. Data generated at this center are also used for national organizations like FDA and USDA.

Learning for the Ukrainians**:** Methods how state agency promotes Ohio industries domestically and internationally, regulate industries, educate agro industries, implement state and federal laws.

Wednesday, June 04, 2003

Ohio Agricultural Research and Development Center (OARDC), Wooster, Ohio
Dr. Joseph Kovach, who manages Ohio State University's Integrated Pest Management (IPM) program at the OARDC, received the Ukrainian group and made a presentation explaining his work. He explained the role of the Ohio State's three agro-economic regions: Midwest, Appalachian and eastern seaboard. He is directly linked with the Ohio State's University's Entomology Department. Dr. Deborah H. Stinner (Organic Food and Research Program) joined Dr. Joseph Kovach (Director IPM) and made a presentation about her work on organic food. They also took the group to various experimental fields to show how the fields are being treated and various agricultural crops produced. Steve also explained pest zones of USA and their active time how they influence agriculture. Pest management is a very precise art and science. Reduced use of agricultural pesticide is an important national agenda. Hence, the research work is important. Deborah has followed the German model (University of Kassel – Professor Hardy Hoffman) for organic crop cultivation technique. Ohio has become 15 top organic growers in USA. The group got very much engrossed into deep discussions and needed some directions to accommodate effective and productive use of time specially pertaining to crop production. The group tasted organically grown strawberries.

Bugs, also referred to as biological controls, beneficial insects, predatory insects or more informally "the good bugs" are part of a system called Integrated Pest Management (IPM) that is used with everything from greenhouse gardens to fruit and vegetable and grain crop farms. The primary goal of using IPM practices is to reduce the use of synthetic pesticides because of the development of pest resistance to some pesticides and concern over the environmental impact from their extensive use. The emphasis is on using ecological principles to reduce reliance on pesticides.

Using "good bugs" to battle "bad bugs" in greenhouses or other agricultural operations is only one of the aspects of IPM. Simply modifying a plant's growing environment through cultural practices, such as pruning, spraying or cleaning, are also among IPM practices. Just being aware of the natural life cycles and environmental interactions that can be used to manage pests is also part of IPM. IPM is a combination of controls – cultural, chemical and biological – that seeks to find an acceptable level of pest control. As an example, if the houseplants are infested with spider mites, spraying and washing the plant's foliage once a week with water can effectively solve the problem. Spider mites thrive in hot and dry conditions, so the moisture should take care of the problem. Such a simple tip is a small example of IPM practices.

There are beneficial insects that are put into action at times. Lady beetles, mealy-bug destroyer beetles, lace wigs, wasps and predatory mites are used to control such pests as aphids, mealy bugs, whiteflies and spider mites. The use of beneficial insects or other IPM practices doesn't replace the use of all pesticides – what they do is change the way pesticides are used. With IPM, pesticides are used more infrequently and in a more targeted fashion. With the IPM philosophy there is an understanding that the goal should be to maintain an appropriate balance of "good bugs and bad bugs". For grain, fruit and vegetable growers, IPM is used in a similar fashion, but includes more cultural practices such as yearly rotations of crops raised in particular areas, mowing or trimming weeds around apple trees, or using cover crops in idled fields. According to Dr. Kovach, approximately 80% of Ohio growers use at least one IPM method in their operations. Dr. Kovach acknowledged that IPM implementation is difficult because of hard to change human habits, it is generally more expensive and it is more knowledge and labor intensive. To change to IPM, one needs more incentives. These may be negative (more taxes on pesticides) or positive (more money for product eco-labeling).

Many of the Ukrainians were interested to know how to fight the Colorado beetles that show up in potato and he suggested using imadichloprid – a Bayer product. He was sure that this bug was an IPM resistant bug and needed a special pesticide. Later the group visited experimental farms and orchards where his group was conducting various IPM experiments.

Learning for the Ukrainians**:** Alternative method of using good bugs against bad bugs vs. large-scale pesticides and chemicals, imparting an ecologically sustainable pest control management, trends in the agriculture, public education and incentives for the farmers.

Thursday, June 05, 2003

Beard Industries, Frankfort, IN

Steven D. Curtis, Product and Marketing Manager along with corporate International Sales Manager Bruce Mitchell received the group. Beard Industries has been bought by CTB. Visit to Beard Industries located in Frankfort, IN was a unique addition to the tour program for the Grain group this year. Despite the fact that Ukraine had two consecutive bumper harvest but grain price was very low. One of the reasons for such low price is the lack of grain storage and conditioning facility for farming community. Lacking such facility at their own farm, most farmers are forced to sell the grain immediately after the harvest at a dictated low price by the grain dealers. Increasing storage and grain conditioning capability is a bargaining chip for the Ukrainian farmers. Beard Industries manufacture excellent grain drying equipment, which could be used in Ukraine.

Learning for the Ukrainians**:** Grain drying and conditioning machines are needed for Ukraine. The farmers know only very well that they can't upgrade their products with out dryers.

Chore-Time Brock (CTB) Manufacturing, Milford, IN
Corporate International Sales Manager Bruce Mitchell received the group. CTB Operations located in Milford, IN is the manufacturing operations for the Grain Silos made out of corrugated zinc alloy sheets, widely used in USA. Lately, some of these silos have been procured by some prosperous Ukrainian farms. Use of these silos for extended storage is a key marketing tool for the future Ukrainian farmers. The visit was a success helping Ukrainians organize and procure similar silos or produce similar low cost products back home.

Learning for the Ukrainians**:** Having storage silos are essential for Ukrainian farmers. The farmers know only very well that they can't have better bargaining capability with out some storage capability. Therefore, similar light weight storage silos as used in USA could well be built in various farms and would provide farmers an extra edge in grain marketing in Ukraine.

Friday, June 06, 2003

Chicago Board of Trade (CBOT), Chicago, Illinois
CBT visit was important particularly to Ukrainian farmers and officials who are currently developing a Future Market in Ukraine. Fivos Andonopoulos, Communications Department at CBT explained in details the way the futures market operate and the role of the traders and hedgers at the CBT. The group also saw a film in Russian language.

The Ukrainian group was fascinated watching from the visitor's gallery the workings of the CBOT with running commentary in Russian describing who's who on the floor and how trading was being conducted. They watched the flurry of activities on various trading floors as soon as the floors were opened for trading at 9 am. The group was informed of the history of CBOT through a film show in Russian.

During most of the 1840's, the Midwest became the final stop for many of the recently arrived European immigrants who brought with them their knowledge of farming. After harvesting their seasonal crops of wheat and corn, farmers would travel to Chicago to sell their crops to the dozens of merchants. As time progressed, farmers found that producing revenue from crops became as difficult as producing the crops themselves. Timing was critical for success. If the crops were harvested too late, or Mother Nature did not cooperate, farming operations were put in serious financial jeopardy. Often, at harvest time, there were many more farmers selling crops than there were merchants willing to buy. A surplus of grain was created thus driving prices down drastically. It was not unheard of for farmers, unable to sell their crops, to be forced to dump them into Lake Michigan due to the lack of proper storage facilities. The inability to manage the supply and demand, a lack of transportation, and inefficient crop storage led to a chaotic marketing situation.

In 1848, 82 river merchants decided that a centralized marketplace was needed and formed the logical futures market, the Chicago Board of Trade, to promote commerce in the city by providing a place to exchange commodities. Chicago's strategic location at the base of the Great Lakes and close to the farmlands of the mid-west, contributed to the city's rapid growth and development as a grain terminal. In 1848 a CBOT membership sold for $2, and today it can be sold for as much as $875,000. The Chicago Board of Trade first opened above a merchant's flour store located at 101 S. Water Street. River merchants transported grain to Chicago and were among the first to use "forward" contracts. CBOT price information is used as a benchmark in determining the value of a particular commodity. With the completion of telegraph communications between the South and East, Chicago could transmit price information to New York within two minutes. Today, CBOT prices are transmitted

instantaneously worldwide. CBOT is recognized as an international marketplace when the French Government buys wheat in Chicago. Today more than 75 countries rely on the CBOT markets.

The Exchange first recognized the need for a common clearing as a result of a major member bankruptcy in 1902. One of the most important initiatives of the year 1900 was the strong fight made by the administration and the members of the Board to eradicate bucket shops. The Board of Trade enacted new price quotation subscription policies to stop the proliferation of bucket shops. In 1922, the federal government began regulating grain trading with the establishment of the Grain Futures Administration. In 1923, the U.S. Supreme Court upheld the Capper-Tincher Act (Grain Futures Act), to eliminate price manipulation and other trade abuses. Consequently, consumers today can purchase numerous grain products (breads, cereals, rice, etc.) at a reasonable and fair price. In 1924, the U.S. government attempted to set daily trading limits for CBOT. CBOT President Frank L. Carey protested, citing infringement of supply-demand freedom. As a result of Carey's activism, agricultural workers then and today have the opportunity of employment. CBOT then had one of its biggest years with 26.9 billion bushels of grain traded. Western Union installed an automatic ticker to replace the slower Morse service, thus providing an improved quotation system. In 1926, Board Of Trade Clearing Corporation was founded to guarantee trades made on the CBOT. This was crucial in preventing counter parties from not abiding by trading policies as well as eliminating any hints of contractual nonperformance. The Exchange moved to temporary quarters on Clark, south of Van Buren Street, before moving in 1930 to its permanent home at LaSalle and Jackson.

In 1967 CBOT installed electronic wallboards, replacing chalkboard markers and Morse code clicks. Price reporting time was cut to seconds. In 1994, CBOT launched its powerful electronic trading system, which allows members to use the market around the clock. In 1997, CBOT opened the World's largest contiguous trading facility providing unparalleled risk management opportunities for global investors. CBOT also wins the license to trade futures and futures-options on the world-renowned Dow Jones Industrial Average index. With this move, the exchange has the World's premier agricultural, financial and equity index products.

Learning for the Ukrainians**:** International grain marketing and concepts of future trading.

Monday, June 09, 2003

John Deere, Moline, Illinois

For the Ukrainian farmers who know the John Deere name so well, the visit to the John Deere facility at Moline was a pilgrimage to the center of the world's agro machinery operation. The change from hand to animal to modern power farming methods in American agriculture is one of the most far-reaching transformations in human history. Mechanization has taken the drudgery out of farming and brought abundance never before known in any land or era. And it has released manpower from the farm to make possible America's great industrial progress. Today, less than 2% of the population farms the land, and that is about 1/3rd the number of rural dwellers as there were in 1837. Yet, these same farmers not only produce sufficient food and fiber for a U.S. population of about 250 million, but also provide a generous surplus for export. This is truly a miracle of the 20th century. It is a tribute not only to American farmer, but also to the scientists, inventors and industrial workers who have contributed so much to the growth of this nation. The John Deere brand, its name and trademarks in agricultural farm equipment, is one of the oldest and most recognized throughout the world. It has been synonymous with high-quality, highly valued equipment and solutions for over 166 years.

Key products manufactured are: a full line of farm machinery, including four-wheel-drive, row-crop and utility tractors; combines and sugarcane harvesters; cotton pickers; and seeding, tillage and hay equipment. Major customers are farmers around the world, including commercial, or custom, harvesting and baling operations.

The Ukrainian group was shown John Deere Harvester Works (Manufactures of Maximizer Combines and Associated Headers) in East Moline. The tour at this plant was an outstanding display of engineering excellence. Because the plant was such a humongous operation at the Harvester Works, the tour was conducted on trolley cars. The Ukrainians saw how the newest model of Harvester Combine is manufactured from its beginning to the final assembly on the line. This was an experience the Ukrainians would never forget. This visit was time well spent.

Learning for the Ukrainians**:** Exposure to the largest manufacturer of effective and productive agricultural air pressured seeding and harvester equipment, concept of a new kind of marketing involving the farmer's participation in the production facility.

Kinze Manufacturing Inc., Williamsburg, IA.
Kinze is a famous manufacturer of precision row-crop planters, large auger, conveyor grain wagons, and other agro-machines. Kinze has sold to Ukraine many of their planters and Ukrainians have high opinions of their products.

The group was told that Kinze is a relatively new company. Jon Kinzenbaw, the company's owner and President, founded the business in 1965 in nearby Ladora, Iowa, as a welding, repair and custom metal fabricating shop. His farm background, understanding of farmers' needs, and inventiveness soon led him to build several custom machines for area farmers and agri-businesses. 1975 represented a milestone in Kinze's growth when the present plant site was purchased. A 1998 building expansion increased the total square footage to nearly 27,000 square feet to allow further growth of this business.

The Company focuses on the needs of today's farmers. Jon Kinzenbaw's philosophy of providing the most value to the customer through product quality and reliability drives every decision in the company. It remains on the leading edge of product development to fit changing cropping practices ranging from conventional tillage to high residue management, including no-till and ridge-till; changing chemical and fertilizer application systems; and mechanical cultivation alternatives to chemical weed control.

Working in conjunction with DMI, development began in 1972 on a 13-bottom plow that would flex in the middle. To demonstrate this new design, Kinze custom-built a 4-wheel drive tractor powered by twin Detroit Diesel engines that produced 600 HP. The tractor and plow were completed just in time to demonstrate at the Farm Progress Show in the fall of

1974. The specially built tractor, weighing over 20 tons, became known as “Big Blue” and continued to draw large crowds at farm shows and field demonstrations through 1976.

Kinze introduced the exclusive Brush-Type Seed Meter in late 1990. This patented meter provided precise metering of soybeans, sorghum and cotton seeds as an alternative to plates, air or vacuum metering systems, or seed cups like those used on grain drills. The meter makes possible the accurate singular spacing of these crops in combination with the precision depth control of a planter row unit, which cannot be achieved with seed openers on drills.

By 1980, Kinze had become a totally integrated planter manufacturer with the addition of planter row units to its unique frame designs. In the same year, the first Double Frame planters were introduced, providing the capability of mounting a solid row of planter units at 15 inch row spacing across the rear bar of the planter.

The current Kinze blue paint color, used previously on grain wagons and anhydrous toolbars, was introduced on planters in 1982 and identifying the company's products across North America and around the world.

Another Kinze innovation came in 1983, when the company began building its unique, patented “push” planter units. By mounting these units on the front bar of a Double Frame planter, the farmer now had the capability of “interplant” or “split row” planting. This planting system has become increasingly popular in double-cropping areas and as a precision planting alternative to grain drills for narrow row soybeans. A producer who plants corn or other crops in 30, 36 or 38 inch rows can quickly convert to 15, 18 or 19 inch rows for soybeans by enabling the “push” units on the front frame of the planter.

Production of the Model 450C Grain Conveyor Wagon began in 1991. It featured an exclusive, hydraulically driven unloading conveyor with a low profile, hydraulic fold for transport. The conveyor utilizes steel backed polyethylene paddles mounted on industrial grade conveyor chain to swiftly unload grain with minimal damage. Unloading speeds of up to 175 bushel per minute mean that the 490-bushel wagon can unload in less than three minutes. In 1995, a shortened Sof-Trak option with 24 inch rubber tracks was introduced for the Model 450C. Introduced in 1992 was the 1500 Conservation Cultivator in rigid models from 4 rows narrow (30 inch) through 8 rows wide (36, 38, 40 inch). The Model 1500 is aimed at high residue cropping systems and offers mulch-till, ridge-till and no-till capabilities. In 1993, a 10 row narrow rigid model, and folding models from 8 rows narrow through 16 rows narrow were added.

A 1994 addition to the Kinze line of technologically advanced planters was the Model 2700 Front Folding Planter. First available in a 24 row narrow (30 inch) size, the Model 2700 goes quickly from 60 foot operating width to 14 foot transport width and back again, with the entire folding/unfolding sequence controlled from the tractor seat. In 1996, two new sizes of the Model 2700 planter with operating widths of 40 ft. were introduced; a 16 row narrow (30 inch) and 24 row for ultra-narrow 20 inch. In 1997, the 36-row 20-inch version was introduced on the same frame that carries the 24-row 30-inch size.

Four stack folding planters – 8 rows wide, 12 rows narrow, 12 rows wide and 16 rows narrow–were introduced in July of 1995 as additions to the 1996 line of Kinze Model 2100 3 Point Mounted Planters. These planters offer the innovative Kinze spring-loaded contact tire drive system, optional point row clutch capability, rigid or optional wing flex operation, telescoping u-joint drive shafts/couplers that do not require uncoupling for folding, and a competitively superior transport configuration.

In 1999, Kinze also entered the world of hydraulic cylinder manufacturing. This venture included the purchase or fabrication and installation of all equipment required to produce, assemble and test industrial-quality hydraulic cylinders, plus the reassignment and training of existing employees to develop and initiate various new production processes.

Learning for the Ukrainians**:** Exposure to the mid-size manufacturer of effective and productive value priced agricultural seeding equipment, which the Ukrainians can afford and could be adapted to the current Ukrainian tractors.

Tuesday, June 10, 2003

Pioneer Hi-Bred International Inc., Johnston, IA.
Dennis Schultz - Pioneer Visitor Center Consultant and Ms. Evonn Dorr received the Ukrainian group at the Pioneer Headquarters. The group visited extensively various seed conditioning facilities, genetic engineering labs, experimental fields etc. Later, the group was joined by two important officials: Joe Lebada (Director, Forage Additive Products - European Operations) and Steven Madjarac (European Agricultural Manager).

Pioneer had been cooperating with ex-USSR countries for a long time. Ukrainian farmers are well aware of Pioneers' reputation and some of them have used Pioneer products. Pioneer Hi-Bred International, Inc. is a worldwide leader among companies dedicated to seed growing. In May 1926, Henry A. Wallace (who later became Vice President under Roosevelt) and eight associates created the Hi-Bred Corn Company — the first company to develop, produce and sell hybrid corn. This year, now known as Pioneer Hi-Bred International, Inc., the company is celebrating 75 years of service to agriculture. Pioneer has been recognized as a multitude of major seed industry and American crop production milestones. During the 75 years since it's founding, Pioneer Hi-Bred International, Inc., has developed and introduced scores of corn hybrids. These hybrids delivered some of the best agronomics and performance available for their time. Each new generation of hybrids was selected and bred to raise the performance bar and deliver even greater value to farmers. Since 1926, the U.S. average corn yield has increased five fold. Advancements in farm equipment, production practices, fertility programs and genetics have all contributed to this bounty. Pioneer has brought to the market outstanding corn hybrids that have been integral in this increase in corn production. Pioneer has given 17 most outstanding hybrids that were introduced to farmers during the past 75 years. Pioneer is dedicated toward research, production, marketing and sales.

The Company's most valuable resources are superior germplasm and its dedicated people. Product improvement is challenging and it takes seven to ten years to develop new, proven, and accepted products from research whether it is corn, sorghum, wheat, soybeans, alfalfa, sunflower, canola, vegetables or microbial products. In 1991 Pioneer became the number one brand of soybeans in North America and in 1993 Pioneer attained 43.4% of the North American seed corn market. In 1999, more than 20% of the soybean seed planted in the U.S. is the Pioneer brand. Pioneer offers growers in North America 241 corn hybrids ranging from 85 to 120 days of comparative relative maturity, 114 soybean

varieties from Group 00 to Group VIII, as well as sorghum, canola, sunflower, alfalfa, wheat and inoculants. Their investment in Research and Product Development exceeds $200 million.

Open pollinated varieties were changed for the "double cross hybrids" and eventually changed to "single cross hybrids". Presently, the company devotes major time for developing better Genetically Modified Seeds (GMOS). The stress is on developing insect resistance, increased yield, high oleic soybean, and fighting agro-bacteria. The company sells seeds in 70 countries and employees 5,000 people. Its total sales are $1.935 billion with a $276 million net income. Dupont purchased the company in October 1999. Coupled with Dupont's financial backing the new Pioneer is a much stronger company.

Pioneer is also one of the largest contract farmers in USA with 800,000 acres of land leased from farmers, who grow seeds for the company. They are also a top-notch agronomy service provider for the farmers. To help farmers make profitable crop management decisions, Pioneer conducts extensive agronomy research studies. Pioneer continues to focus on both traditional and cutting-edge research topics. Traditional studies such as row width, planting dates and plant population etc. invariably impact all growers. New topics such as variable planting and development of management zones in variable fields are increasingly important to help run precision farming technologies into practical management tools. Variable planting studies (non-irrigated land vs. irrigated) give yield potential data as to how the optimum plant population should be.

Pioneer also partners with leading university and USDA scientists to accomplish research studies on topics of special importance to Pioneer customers. This can involve corn boring rootworm, soybean white mold disease, etc. Pioneer had developed hybrid seeds that are corn borer resistant and also soybean cyst nematode resistant.

The Ukrainians were shown around their genetic research center and special genetic cell gun grafting technique. The group also visited their experimental cornfield accompanied by their two regional managers. Pioneer treated the group with warmth and utmost cordiality. This visit was a time well spent.

Learning for the Ukrainians**:** Exposure to seed breeding, cross-pollination and understanding of genetically modified seeds.

Wednesday, June 11, 2003

Monsanto, St. Louis, Missouri

J. Ronald Condray, Biotechnology Guest Relations met the group. Monsanto has been bought and taken over by a German company. The current mood in the company is one of a transitional one.

However, Monsantos's core strength - genetic engineering for agriculture is very strong and the research facility in Chesterfield, MO is the perfect representation of such an operation. The group enjoyed the tour because of the simplicity with which Monsanto has succeeded in explaining various concepts of genetic engineering and future research area. The group had the opportunity of seeing genetic engineering work being done at Monsanto from the very beginning to the end product and also how the process of seed selection is done.

Chesterfield Village Research Center of Monsanto located near St. Louis, Missouri is a 210-acre facility with 10 acres in buildings and parking, 30 acres of traditional landscaping restored to prairie,

and the remaining 170 acres managed for wildlife. The buildings have 1 million square feet of research space. The Chesterfield Village facility opened in 1984 to provide high-quality research for Monsanto's new biotechnology and developing agriculture research efforts. The facility currently houses more than 1,300 scientists working primarily on agricultural and pharmaceutical research.

The group was given a basic briefing on biotechnology and genetic engineering research work at this center. Various computer models of the gene were explained and how the genes are altered to induce the necessary changes, so the end product becomes resistant to pests, weather, herbicide, etc. The challenges for getting a better variety of seed that can withstand pests, weather and herbicide etc. is are enormous. It is like finding a needle in a huge haystack. The task is to find one particular protein out of a pool of 65,000 proteins that could be introduced or withdrawn and thus making the significant difference in a seed. For example: the Genetically Modified Seeds (GMOS) resistance to pests may contain a protein, which is indigestible for the bugs but animals, and humans can digest it readily without problem. When a pest swallows a bite of the plant in the field, its internal organs disintegrate and it dies within a few hours. To achieve this kind of highly selective genetic engineering on protein configurations requires years of painstaking hard work and millions of tests be done in the lab 24 hours a day. Massive amounts of data in an information database are analyzed, experiments reproduced, re-analyzed, field tested, and non-hazardous certification issued before it even goes for FDA approval. The lead-time for this kind of research, implementation, and commercialization is about 10 years. This involves massive research and development investment and deployment of resources. To illustrate the point, we were told that the Monsanto facility at Chesterfield has annual utility bills amounting to $4 million and the budget for the facility is around $500 million.

The group was given an extensive visit of the huge facilities, experimental robotic labs, farm stations, genetic engineering labs etc. Monsanto runs all their lab tests using robots that run tirelessly round the clock with automatic data collection and analysis done by computers, thus reducing human error almost to zero. Monsanto has opened a biotechnology education program for public awareness to acquaint, help understand, and accept new products as scientifically proven and sound. Monsanto also has developed "New Leaf", a potato resistant to the Colorado Beetle, which is environmentally safe. The group was informed that more that 50% of U.S. soybeans in the year 2000 were produced using the Roundup Ready seed and this year 63% of the farmers are expected to use this. Roundup Ready seeds have become a benchmark for U.S. farmers. No-till farming without Roundup Ready seed would be impossible. There are other crops such as Roundup Ready canola, cotton, and corn, which are becoming more popular in the U.S. every year.

In a discussion with the Monsanto scientists it was revealed that Ukraine government has not yet accepted any of the Monsanto products and hence it has become rather difficult for the farmers to take advantage of the huge scientific advances. There were several agronomists in this Ukrainian group who were simply overwhelmed by the sheer size, extent of this enormous research facility and appreciated the type of scientific work undertaken for the good of mankind. Monsanto treated the group with utmost cordiality and warm hospitality. This visit was a time well spent.

Learning for the Ukrainians**:** Detail exposure and understanding of genetically modified seeds, understanding of the underlying trends in genetic engineering research methodology, principles and ethics of food science.

Thursday, June 12, 2003

American Soybean Association (ASA), St. Louis, Missouri

Neil Caskey (Special Asst. to CEO) and Kim Nill (Technical Issues Director International Marketing) received the group. Both Neil and Kim made presentations to the group.

Neil explained in detail the role of ASA within the USA and how the membership of such organization is structured. Its core structure, governance and membership dues are being paid and managed by farmers. Where as, the International Marketing aspects are being financed by the USDA, with a substantial annual budget to promote soy sales overseas. Kim explained this portion of the ASA international operations.

An important revelation for the Ukrainians was that the major US transgenic produced grains are consumed and imported by Western Europe, mainly as animal fodder. This makes the US transgenic seed producers vulnerable and at the same time their products banned in Europe very contradictory.

The group was told that with ASA's initiative, US Goverment has filed a case against the European Union at the World Trade Organization (WTO) for unfair grain trading practices and resolve issues surrounding GMO seed cultivation in Europe.

ASA has 34,000 members and is tasked with accomplishing the policy goals established by the farmers, members, and delegates. ASA does this by testifying before Congress, lobbying Congress and the Administration, contacting members, and meeting with the media. This legislative process cannot happen without member input and assistance. In 1978, ASA established its World Headquarters in St. Louis, Missouri. It employs 40 people. We were told that in 1988, exports to the Soviet Union alone increased from 2.5 million to 91 million bushels. In 1999, the USA exported 25 million MT of soybeans. In year 2001, the USA is expected to produce 75 million MT of which half will be exported. Major competitors are Argentina and Brazil. There are now 13 ASA offices in strategic overseas locations. They direct market expansion activities for soybean meal, soybean oil, and soybean food products in 77 countries worldwide. These 13 ASA international offices are located in: Brussels, Caracas, Hamburg, Madrid, Mexico City, Moscow, Beijing, New Delhi, Seoul, Singapore, Taipei, Tokyo and Vienna. ASA has an annual budget of $20 million (USDA provides $9 million, U.S. Soybean Board provides $10 million and the rest comes from membership dues). Most of the budget is meant for international marketing: involving trade servicing, public relations, consumer education (feed, nutrition), train (crushers, refiners, processors), demonstrate improve feeding products and practices. It also promotes research and value added products such as soy ink and soy-diesel. Congress approved the Vegetable Ink Printing Act that requires the federal government use vegetable-based inks in its printing operations where technically feasible and cost-competitive with petroleum-based inks. This comes on the heels of the USDA announcement in the year 2000 that required all printing ordered by USDA to employ ink derived form agricultural products.

The group was informed about the long history of ASA, which was founded in 1920. Soybean farmers and extension workers founded the Soybean Association in an effort to promote the crop and increase profit opportunities. After 80 years the organization continues these important efforts. Early soybeans presented farmers with production and marketing challenges. Gold, green, black, brown and mottled seeds grew on plants ranging from ground hugging vines to leggy stalks. Plants were difficult to harvest and pods shattered easily. The small, uncertain supply made many processors unwilling to crush the beans. Feed manufacturers and customers were leery of using the soybean meal and cake in animal rations.

Through the American Soybean Association (ASA), early soybean farmers agreed that processors would underwrite the production of 50,000 acres at a guaranteed minimum price. With processors

guaranteed a supply and farmers assured of a market, production increased. In the 1930s, surpluses of wheat and cotton made soybeans an attractive cash crop. New processing methods created more acceptable meal and oil products and demand for edible fats and oils encouraged research on soybean oil for food uses. Soybean meal proved to be an important ingredient for balancing animal rations. Europe began importing American soybeans and in 1936 the Chicago Board of Trade established a soybean futures contract. In the 1940s, the U.S. was importing 40 percent of its fats and oils when World War II cut off supplies. Soybean producers doubled production and processors built plants to produce the oil. But the end of the war brought surpluses. The U.S. and United Nations were shipping soy flour to Europe and Asia, but soybeans were not part of the government food aid plans. ASA launched legislative battles to remove barriers restricting the sale of margarine. Government efforts to reduce soybean production and rigidly restricted exports were opposed.

In 1949, the U.S. began to turn from being a net importer of oils, proteins and oilseeds to a net exporter. Soybean Association leaders traveled at their own expense as technical advisors on government missions to survey potential markets for U.S. agricultural products. They were convinced that Europe and Japan had the plants, machinery, equipment, know how - and the need - to use American soybean products in large quantities. In 1954 - Passage of P.L.480, Food for Peace program made it possible for government and private groups to cooperate in funding market development through the USDA's Foreign Agricultural Service (FAS).

After more than a year of study and discussion, delegates approved a resolution to work towards a national soybean check-off. Legislation to create the one-half of one percent check-off for market promotion, research and industry education was introduced which eventually became the basis for the ASA funding. In 1991, the national soybean check-off started and activities were funded by the national soybean check-off through the United Soybean Board (USB), and flourished under the direction of ASA farmer-leaders and staff. In Western Europe, ASA used check-off funds to implement a major consumer education campaign. European purchases of U.S. soybeans increased 22%. A GATT Dispute Settlement Panel ruled in favor of U.S. soybean farmers stating that European oilseed subsidies are unfair competition and illegal under GATT rules. ASA initiated the complaint in 1987. The Ukrainian farmers group was amazed by the strong ASA role in promoting American soybean growers interest overseas.

Learning for the Ukrainians**:** Exposure and understanding of Soybean Association and how it promotes farmers marketing and legal interests.

8.0 PARTICIPANTS

The following Ukrainian grain producer's farm representatives participated in the study tour.

Name	Position	Organization
Viktor Kostenko (GL)	Department Head	Dept. of Agriculture
Lyudmyla Berlova	Marketing Policy Mgr	Dept. of Agriculture
Valeriy Chmut	Auctioneer	Kharkiv Commodity Exchange
Mykola Zasukha	Director	Pervoye Maya Ltd
Valeriy Vertsun	Director	Zolotaya Niva Ltd.
Oleksandr Kontsevych	Head	OKA Farm
Viktor Lukotskyy	Chairman	Zhelezniak Farm
Oleksiy Piven	Director	Ukrainia Agr
Sergey Popov	Department Head	Institute of Yurieva
Nataliya Savchenko	Director	Svitanok LTD Farm
Viktor Severyn	Agronomist	Novy Shliakh Ltd
Anatoliy Synelnyk	Chairman	Rossolova Farm
Yuriy Umrikhin	Head	Umrikhina Farm
Sergiy Vasenin	Deputy Chairman	Promin
Sergiy Volovenko	Director	Pavlovo SABC

Participants = 15
Male = 13
Female = 2
Companies = 14
Employees represented = 1728

Marshall Plan Study Tour
Grain Production
April 26 to June 15, 2003

Lyudmyla Berlova Dept Agriculture	Valeriy Chmut Commodity Exchange	Oleksandr Kontsevych OKA	Viktor Kostenko Dept Agriculture
Viktor Lukotskyy Zhelezniak Farm	Oleksiy Piven Ukrainia Age	Sergiy Popov Institute Yurieva	Nataliya Savchenko Svitanok Ltd Farm
Viktor Severyn Novy Shliakh	Anatoliy Synelnyk Rossolova Farm	Yuriy Umrikhin Umrikhina Farm	Sergiy Vasenin Promin
Sergiy Vdovenko Pavlovo SABC	Valeriy Vertsun Zolotaya Niva Ltd.	Mykola Zasukha Pervoye Maya Ltd.	Belal Siddique CEI Tour Director

9.0 INPUTS PROVIDED BY CEI AND OTHER ADVISORS

Local Farm Bureau member Peggy Clark and others provided various inputs. These included:

1. A list of possible host organizations to be contacted.
2. A detailed schedule of appointments.
3. Appointment details.
4. Changes to the tour schedule as necessary.
5. Advice to participants during the tours and at evening discussion periods.
6. Organization of seminars.
7. Organization of tours in conformance with budget allocations.

10.0. CRITERIA FOR HOST ENTERPRISE SELECTION

Host enterprises were selected so as to give the participants a broad picture of the U.S. Farming and Agro-business related Industry. Characteristics that were crucial in selecting enterprises were their ability to provide the Ukrainians: exposure to technology, distribution, transportation, marketing, advertising, and packaging, and fostering new ideas for producing and marketing new value-added products in Ukraine. When there were several choices of companies in the same industry, those selected were generally more progressive, offered a clear difference to the Ukrainians, had active management participation, were geographically dispersed, and offered exposure to large/ medium/small sized industries and farms.

Although the group was composed of diversified specialists from the same sector industries, and hence the farms had many common aspects, the tour program benefited each participant in one way or the other.

11.0. AMERICAN HOST ENTERPRISES

Date	Time	Destination	Contact	Purpose
5/26	6 pm	**Arrival: US AIR Flt 4354**, transport to Vernon Manor Hotel	**Kathy Kathman** Phone: 513-281-3300	Dinner/Residence
5/27	8:30 am	**Orientation Seminar**	CEI	Room Required
	Noon	**Lunch**	**Kathy Kathman**	Room Required
	1:30 pm	**Cincinnati Tour, Kroger**	Program Director	Get oriented, Get food
5/28	9 am-12 noon	**Cargill Kellogg Farm Service Center** 6761 Kellogg Avenue Cincinnati, OH 45230	**Richard Morland**, (Manager), Dave Link (Manager), Adam Schmidt (Manager) **Phone:** (513) 232-8981/(800) 543-7332	Agro-Service Operation, Grain Elevator.
	2 pm-4pm	**Heyob Farms** 7820 New Haven Road Harrison, OH 45030	**Dennis & Mike Heyob,** Owners **Phone:** (513) 738-1794 **Fax:**(513) 738-1794	Corn, Soybean and market fresh sweet corn. Farming.
5/29	9 am	**Miller Farm** 1557 East 300 North Portland, IN 47371	**Greg Miller** Phone: (260) 726-2844	Corn, Soybean, and Wheat Production. 1,800 Acres

				land
5/30	8 am-10 am	**Southwest Landmark (Land-O-Lakes) Feed Plant** 767 Old Chillicothe Road Washington CH, OH 43160	**Keith Noble**, Plant Superintendent David Schultz, Plant Manager **Phone:** (800) 282-8524 (740) 335-0207 **Fax:** (740) 335-3572	Agro Service, Animal Feed, Cooperative movement.
	11 am–1 pm	**Southwest Landmark Agronomy Plant** 310 Starbuck Road Wilmington, OH 45177	**Jim Fleck,** President **Phone:** (800) 354-0435/(513) 932-2015 **Fax:** (513) 932-7955	Cooperative Agro Services, GPS etc.
	3 pm-8 pm	**Mike Farm Enterprise Inc.** 2274E. Lytle 5 Point Road Dayton, OH 45458	**Peggy & Mike Clark**, Owners **Phone:** (937) 885-5965 **Fax:** (937) 885-5942	Sharing Corn farming experiences.
5/31	4 pm-8 pm	**Dinner/Picnic**	**Judy & Dan Mckinney**	Food/Social
6/1		**Cincinnati**	**DAY OFF**	Art Museum, Botanical Garden, Newport Aquarium
6/2	9 am-12 noon	**Schwenke Brothers Farm** 4581 Beaver Road Union, KY 41091	**Bob Schwenke,** Owner **Phone:** (859) 384-3840 **Fax:**(859) 384-7177	Corn and Soybean Farming.
	2 pm-4 pm	**ADM – Countrymark (Barge Operation)** 4837 River Road Cincinnati, OH 45233	**Rick Bauwens,** General Manager **Phone:** (800) 655-4860 (513) 941-6760 **Fax:** (513) 941-2265	Grain Transportation. Barge Loading Terminal Operation.
6/3	8:30 am-10:00am	**The Ohio State University** Dept. of Agricultural, Environmental & Development Economics Agricultural Admin Bld. # 103 2120 Fyffe Road Columbus, OH 43210-1067	**Prof. Luther G. Tweeten** **Phone:** (614) 292-6335 **Fax:**(614) 292-7710	University. Agricultural marketing, policy development and trade
	2 pm-5 pm	**Ohio Department of Agriculture (ODA)** 8995 East Main Street Reynoldsburg, OH 43068-3399	**Bruce Benedict;** Ms. Liana Lee, Chief, Division of Markets; Betsy Belleville, International Crop **Phone:** (614) 752-9815 **Fax:** (614) 644-5017	State Agricultural Organization. State Agricultural Marketing Support System, Laboratory and Testing.
6/4	8 am-11 am	**Ohio Agricultural Research Development Center (OARDC)** 1680 Madison Avenue Wooster, OH 44691	**Dr. Joseph Kovach** **Phone:** (330) 263-3846 **Fax:** (330) 263-3841	Agro Research Center. Integrated Pest Management (IPM).
6/5	8 am-11 am	**Beard Industries** 1750 W. State Road # 28	**Bill Crossby**, Operations Manager.	Grain Storage and Drying

		Frankfort, IN 46041-9146	**Phone:** (765) 654-8517 **Fax:** (765) 654-8510	technology.
	2 pm-5 pm	**Chore-Time Brock (CTB) Manufacturing** 611 North Higbee Street Milford, IN 46542	**Bruce Mitchell**, International Sales Manager, Bill Crossby, Operations Manager. **Phone:** (574) 658- 5186 / (765) 654-8517 **Fax:**(765) 654-8510	Corrugated Grain Silos Production. Storage and Drying Technology
6/6	9 am-10 am	**Chicago Board of Trade** 141 West Jackson, 5th Floor Chicago, IL 60604	**Ray Gach**, Visitor Center Guide **Phone:** (312) 435-3500	International Mercantile Commodity and Grain Trading
6/7		**Chicago**	**DAY OFF**	**DAY OFF**
6/8		**Chicago Fields Museum**	**Monsanto Exhibition/Travel to Moline**	Plant Science
6/9	8 am-12 noon	**John Deere** 1100 13th Avenue East Moline, IL 61244	**Linda Alamanza**, Guest Service Department. **Phone:**(309) 765-8000/(877) 201-3924	Agricultural Equipment Manufacturer. Harvester Production Works.
	3 pm-5pm	**Kinze Mfg Inc.** PO Box 806 I-80 (Exit 216, Morengo Exit) Williamsburg, IA 52361	**Dolores Reinhart,** Guest Relations **Phone:** (319) 668-1300 **Fax:** (319) 668-1328	Agricultural Equipment Manufacturing and Demonstration.
6/10	8 am-12 noon	**Pioneer Hi-Bred International Inc.** 7000 North West 62nd Avenue PO Box 1000 Johnston, IA 50131-1000	**Evonn Dorr,** International Guest Relations **Phone:** 800-247-6803 (ext. 3488) / (515) 270-3488 **Fax:** (515) 334-4550	Agro Service, Seed Developers. See 2 Operations related to Research, and marketing Operations.
6/11	9 am-12 noon	**MONSANTO** 800 North Lindbergh Blvd St. Louis, MO 63167	**Janet Bossch** Manager International Business. **Phone:** (314) 694-5014	Genetic Engineering and Seed Operations
6/12	8:30-10:30 am	**American Soybean Association (ASA)** 12125 Woodcrest Executive Drive, Suite 100 St. Louis, MO 63141 - 5009	**Gay Lynn Mester,** Program Assistant **Phone:** (314) 576-1770/800-688-7692 extension 1323 **Fax:** (314) 576-2786	Soya Growers Association. Farmers Association.
6/13	8:30am -5:30 pm	**EXIT INTERVIEWS**	**Kathy Kathman** Phone: 513-281-3300	Room Required
	6:30 pm	**GRADUATION DINNER**	**University Club**	Farewell Dinner
6/14		**Cincinnati**	**DAY OFF**	**DAY OFF**
6/15	3 pm	**Departure (6:15 pm): US AIR Flt 4142**, transport by Vernon Manor Hotel	**Kathy Kathman** Phone: 513-281-3300	Departure

12.0 OTHER VISITS

Kroger Supermarket in Corryville, Cincinnati, Ohio
Value City, Cincinnati.
Meijer Supermarket, Forest Fair Mall

13.0 PROBLEMS ENCOUNTERED/CORRECTIVE MEASURES TAKEN

13.1 During the early farm and plant tours, members were very interested in different aspects of the business and it was rather difficult to keep the group together. To avoid this problem in subsequent visits, more volunteers from the host organization helped keep the group together.

13.2 Timeliness and punctuality were not much problem with this group. However, they needed to be reminded occasionally about this issue in order to maintain appointments and time schedule.

13.3 The group deposited their air tickets and passports at Vernon Manor Hotel safe to avoid any loss.

13.4 The end of the tour evidenced fatigue, and some illness. Food, culture, language, time zone, frequent exposure to extreme summer heat and humidity and sheer travel sickness caught some members off guard. However, everyone was able to attend all sessions and events.

13.5 Some tour representatives wanted to have separate programs, custom built for themselves such as visits to a farm specializing in raising large-scale livestock and aqua culture. This was beyond the scope of the budgeted tour program.

13.6 Because of exhaustive and hectic travel programs to various towns and cities spread over several states, regular group discussions with the group leader and other members could not always be done in motel or hotel settings but rather on the run and on the buses. The active participation of the Group Leader helped resolve critical problem solving, issues, and in generally organizing the group. Eventually, tour members were delegated definite tasks for collecting and compiling information.

14.0 EVALUATION BY TOUR MEMBERS

Leland Cole and Belal Siddique held post-tour individual interviews with each of the participants. Each was asked to comment on his or her impressions of the tour and on benefits they estimate could result through increased productivity and/or increased sales from the addition of new products. During the half-hour interviews, each participant was able to describe those points he or she felt were particularly significant for their company. In addition, each of the participants took the opportunity to express their sincere thanks to CEI and USAID for offering this program, which was not only informative but enjoyable as well.

14.1. Yuriy Umrikhin

[CEI] Yuriy, what was it that you learned that you can use in your operations?

The first thing I will try to implement in my operations is a grain storage facility. I will either try to start manufacturing grain bins or to buy them somewhere. We will have to find out what will be more financially realistic. I also liked grain dryers. The reason why I became so interested in grain bins and grain dryers is that in Ukraine wheat production is becoming ever more risk. That is why I believe it is important to expand the list of crops we cultivate by adding corn and soy. But these two crops in our

conditions do not mature with the required level of dryness, so that means that at harvest time they are still pretty moist and they required drying.

Normally we harvest the soy with 22% moisture content, but the best moisture condition for soy is 13%.

Another reason why we need grain storage facilities and grain dryers is that the current network of elevators is not working very efficiently. They have a number of problems with them of a different nature. So I can see that it would be very advantageous for us to store grain waiting for the most advantageous prices.

[CEI] What type of economic impact would this have on your farm?

I believe the economic impact would be very high because now, when we turn in our grain to the elevators, we lose up to 30% of our grain because of their insufficient methods of drying, processing, and outward cheating.

Another reason why we need to convert to growing more corn and soy is that a number of people in the villages and rural areas are looking for something to do. They have been freed from their former occupations and now they are trying to raise livestock on their own which means that there will be more and more demand for both corn and soybean meal to be used as feed for those animals.

[CEI] Are you growing any corn or soy at the moment?

Last year we cultivated soy but because the soy was too moist, the seeds we obtained were not adequate and the germination rate of those seeds was not 50%. So we were not able to use them this year. Last fall the weather was too moist and we could not dry the soy in our present facilities. We had about 5 tons of soy and none of those grain storage plants was willing to take it for drying. Since there was so little soy, no one wanted to deal with that small amount.

[CEI] Is there a market for soy?

Yes. Actually there is a market demand for soy in Ukraine, and it is pretty high. The only thing is that we need varieties of soy that will be early maturing. That is, that will mature quickly. Now we get those seeds from breeder farms and there is a breeder farm close to the town of Dergachi in the Kharkiv oblast.

Here in the U.S. I know there is seed that is genetically modified technology for both corn and soy. And I became convinced here that resisting those new technologies is senseless because this technology has been proven to be economically efficiently and it also makes sense.

[CEI] We are sure that you know that the European Union is clearly dragging its feet and they know they need to approve the GM foods, but for political reasons they are not doing it. At the American Soybean Association the group learned that the largest importer of soy is Western Europe. But they don't allow the framers there to grow the soy. People in Africa are actually starving because they are reluctant to use GM seeds.

There are probably economic and political reasons for the stance of the European Union and most probably they are trying to protect their market as opposed to being unsure of those GM foods.

The thing is that I am pretty sure of is that using Roundup Ready seeds will allow us to get the same yields we are getting now using conventional tillage, but will reduce costs tremendously and also preserve the soil.

We are not allowed to use Roundup Ready seeds yet. I hope that this situation will change. I believe that this technology is more important in our country than in the United
States because we have a lot of drought and certainly do not get enough moisture and because of this low moisture level and dry weather we lose a lot of our harvest.

[CEI] What else did you learn on the tour that you will be able to use back in Ukraine?

I also liked the mechanism of livestock breeding where the farmer gets a certain number of calves, or piglets, to raise as well as feed from the company on a contractual basis and gets paid either in cash or by a commission or certain percentage of the selling price. I believe that is something that will work very well in our country.

[CEI] I am not sure that I understood that.

In the United States there is now a widely used practice of giving piglets or calves to a farmer with a full package of shots, special food, and necessary ingredients. Then all the farmer has to do is to put up a shed and raise the animals. One farmer in the U.S. can handle 1,000 piglets using this technique. The benefits are great. For the very large operations there is a huge ecological problem with waste disposal. But if you spread the animal operations out over the country into small operations, then you don't have that same problem. Moreover, with this technique, all the farmer has to do is to fatten the animals. After the animals achieve a certain weight, they are sold.

So this operation can be done in two ways. In the first, the farmer owns the pigs, and after raising the pigs the farmer sells the pigs. In the second, the farmer gets a commission for his service. In that way the farmer does not have a problem of marketing, does not have an ecological problem, and does not have to hire a veterinarian or anyone else. It is all done very efficiently. Essentially the large farm is subcontracting the growing of the animals. The only difference is that the company is providing all the help and materials.

Certainly if you have a shepherd in Ukraine watching one cow, which is not an unusual sight, that person can watch many cows at no increase in time or expense. When I see somebody tending one cow in Ukraine, I say that you can always grow wheat in a flower pot and the results could be very similar.

Subcontracting the feeding of livestock will allow us to solve several problems. One of them is the use of low-quality wheat and barley which actually can only be sold at very low prices, but from the nutrition point of view it is pretty good.

And a second reason for using this method is increasing employment. Of course that will have not only economical but political significance. I sit on our Rayon Council so I understand that it is important politically as well.

Also, increasing livestock production will entail increased demands for hay or perennial grasses. For us, using perennial grasses will improve the soil structure, enrich the soil with more nutrients, and will

improve the crop rotation. On the other hand, we will be getting more efficient in our cattle raising operations.

[CEI] Can you quantify the economic benefit?

I will say that any economic impact will pay off, but it is hard to give an exact figure. However, according to my calculations I would say that profitability for contract feeding of animals will be at least 50%. That is, the profit margin will double. The reason is that now we pay nothing for unconditional grain and also the grain by-products we use cost nothing and they can be used to very big advantage. And that scheme requires very low capital investments. It is just a question of organization. We will need honest people to do that and I know those people because I was born in this area.

Another thing we will need to provide is veterinarian service and I will need to contract with a vet who will provide services to all those feeders. And those people would not ordinarily be able to afford a vet.

Regarding dissemination, I am going to talk to the 15 farmers who live in my village. I am also going to use our newspaper and TV which is owned by Sergiy Tsymbalov, a participant on the CEI Bakery study tour in 2000.

14.2. Sergiy Vdovenko

[CEI] Sergiy actually won a tractor in Ukraine based on his financial results for 3 years and a final lottery. It was presented by the Prime Minister and there is a picture of Sergiy and the Prime Minister on the cover of a major farmer's magazine.

I was impressed with pretty much everything, with all the appointments and all the sites we visited. Let me start with the Cargill facility because actually receiving grain and the issues of grain quality are a burning issue in Ukraine. We have all kinds of problems, but with those elevators we have in Ukraine we have six grades of grain that describe its quality. They try to receive our grain as grade 5 or 6 and obviously pay less. Grades 1 and 2 obviously pay the most. Here I observed that there are mainly two grades of grain.

Another thing I was impressed with here was the crop management technology. The rotation of two crops that are used here is something that is not terribly progressive but is very practical. In Ukraine our crop rotation includes we have proved that the ideal crop rotation should include 5 to 8 crops as opposed to two in the U.S. But for us the American crop management of rotating two crops, corn and soy, is more practical because at this point we don't have money and we cannot expect investments or reasonable interest rates from the banks. So it makes sense for us to have shorter and smaller crop rotations: two crops rather than five, six, or ten.

Again, from what I have seen here I understand that we should not be climbing up hill – it would be a good idea for us to stay at the foot of the hill at this point and perhaps we should stay with two or three crops in the rotation and emphasize the crops that are profitable in our conditions and maybe try to do more research for this shorter crop rotation.

[CEI] What are now the most profitable crops in Ukraine?

Sugar beet and sunflower and corn are the most profitable. If we are talking about vegetables, it is peas. We are not ready to eat soy and don't let anybody tell you that we are doing soy. Nobody is doing soy.

I understand from my tour in the United States that we should start doing soy now but that will entail a lot of problems. I wish that Roundup Ready seeds, made by Monsanto were available in our country because obviously we have a tremendous wheat problem, our herbicides are very expensive, and we need to plow at least once in every two or three years, and after plowing we plant, say sunflower.

During our visit to the ITM program in Wooster Ohio, I got confirmation of my old ideas that low-till is really practical. That is something our grandfathers were using and not necessarily that they were plowing all the time. The lady who hosted us there really provides confirmation to my ideas of the importance of low-tillage.

[CEI] He said nobody is actually growing soy but certainly many farms say they are planting soy. We don't understand the discrepancy.

The thing at this point is that the statistics department is very powerful at the Rayon and Oblast level. Obviously they require a lot of paper work and they are trying to exert pressure on us to try to make us cultivate crops irrespective of their profitability. That is one reason. The other reason is that although farmers are trying or experimenting with crop cultivation it still doesn't make sense for us either financially or seed wise. If we had those Round-up Ready seeds available, the situation would be different, but at this point it really doesn't make much sense.

Farmers are experimenting with soy, but they are planting about 1 hectare which is nothing.

[CEI] Verboskoye says they plant 200 hectares. That is the only figure we have with us.

In my Rayon we have 101,000 hectares of arable land, so that is a very small percent. In my district I know of 2 farmers who are experimenting with soy and they have 0.5 hectares and 1.0 hectares respectively.

We understand that the future belongs to corn and soy. I am doing corn on a large scale and I have my own seed facility on my farm. Last year I really pieced it together from all over the district. I plant 1000 hectares of corn every year.

Out of the 1000 hectares I use 104 hectares for seed production. We grow three hybrids there and then I pack those seeds into bags and sell as breeder seeds to other farms elsewhere.

Also, we don't really have processing facilities for soybeans to make the soy appropriate for feed. We don't have enough equipment especially for large scale production. So it's important to neutralize the amino acids in soy, it is not enough just to extrude it. Actually processing this particular amino acid neutralization aspect is very important and most of our farmers cannot deal with that. This is one of the reasons why soy as meal gets imported from the United States which is very far away.

Our visit to the American Soybean Association was very important. At this point we have a number of problems in our farmers association as well as in our sunflower and corn associations. Often those associations are managed by old guard managers of all those collective and state farms. They are really not doing very much and sometimes the farmers feel they provide an impenetrable wall. When I found

out that only 10% of soybean growers are members of the American Soybean Association, it really inspired me with hope. Of course this ASA is a very powerful entity and provides a lot of lobbying for the American producers. But still, only 10% are members. To give you a comparison, I would like to tell you that only 3% of our farmers are members of our farmers association. Before visiting ASA I hoped the number would go up to 30 or 40%.

[CEI] So you feel you can use some of these ideas back in Ukraine?

Yes. For three years I was president of our farmers association and I am also very active in the farmer's movement in our oblast and in the nation. I really try to fight for the issues I believe in.

I will try to convert my farm to no-till and low-till technology and I do have the equipment for that. We have drill planters available. Again, I would like to say that I was very impressed with what I have seen on the study tour so my engines are really operating at full speed now. Our profitability will improve because of our better harvests and yields but because of cost reduction. By using low-till hopefully we will be able to reduce our diesel consumption by 35 to 40%.

I am going to share this information with all the farmers in my Rayon and there are about 104 farmers of which 78 are association members. I would like to say that in our rayon the association membership is extremely high at the moment by Ukrainian standards. Also in this group is Viktor Lukotskyy who on this tour and is president of our farmers association. So both he and I will be disseminating this information. I am going to publish an article in our farmers' magazine and I will provide you with a copy. Actually that is the magazine that had my picture and my new tractor on the cover.

Before this trip I heard a lot about Americans and I saw that there is much individualism and conviviality here. I would like to say that we are all individualists to some extent, although we are not allowed to be 100% individualistic because of the stereotypes and traditions and the pressures carried over from the Communist past. I understand that America represents a wonderful experiment essentially because here different various crops came together and as any smart person knows, it is much better to learn from somebody else's mistakes rather than from one's one. I hope the American taxpayers will forgive me for this statement.

14.3. Sergiy Vasenin

Actually I have made some sketches of what I have learned here. The first thing that impressed me was the usage of no-till technology. I really noticed that no-till is used globally here in every region we visited. I think the costs here will be lower than those in Ukraine even given the higher wages and salaries in the U.S. I also noticed in a specific region only the most profitable crops will be cultivated. And there is a lot of specialization in American agriculture. The third thing that I noticed was the use of global positioning systems. So GPS is used for soil testing, weather forecasting, etc. so American farmers are very well informed about those factors.

Q: Is that something they can use in Ukraine?
A: Understandably for that we will need a satellite since that should be a national program. We are still using those manual samples. Here we saw those sprayers that use GPS system for precise application of fertilizers and this is a miracle really.

Another thing that impressed me was that the farmers have their own grain bins and grain dryers on their farms as well as silos. Actually I have heard that the manufacture of the silos has been launched in Ukraine. Therefore, in the nearest future we will be able to buy these silos for our farm. As you

know, all the grain was taken to the state run elevator in the past. Thus there was no infrastructure for grain storage on each and every farm.

Q: If you had silos, what economic impact would that have on your farm?
A: If we had our own silo I would place it next to our grain purification system and the grain would be transferred directly into the bin as opposed to being driven 5 kilometers away. Now we spend 10 hryvna for each 5 tons of wheat now. All in all we have 35 tons of wheat a season and that costs 10,000 hryvna ($2,000), and all of that would be saved if we had a silo on our farm. Of course, this only applies to wheat. That is only the direct cost and I am not talking about other costs such as depreciation, fuel, salaries, etc.

CEI: Silos are really a bargaining chip. Without a silo, the farmer has no way to bargain for the price of his crops.

Another economic benefit is that at this point we just dump our grain into piles essentially and the temperature there is 25 to 30 degrees C. So the grain doesn't get cooled down sufficiently so the result is always a danger of combustion. If we had our own silo we could store the grain at the ambient temperature and the best temperature for storing grain is probably 18 degrees C. So that will help us manage risk better because it happened several times because of the high temperatures we had to sell our commodity grain as a fodder grain because the quality deteriorated. Having our own silo will certainly save time loading and unloading.

I was also impressed with the number of cooperatives and different associations here in the United States. At this point we do have the so-called agro-producers council both at the Rayon and the Oblast level although it is not really functioning properly and it has not been officially registered. So at this point I would like to say that we are trying to set up a so-called Slobojanski trade house in the Oblast for all the agricultural producers. I believe it will be good for the farmers if we just unite our efforts and join ranks. At the same time we are having problems with the Anti-Monopoly Committee which is a government entity. So they think creating a trading house will be a negative factor because the farmers will essentially become a monopoly and that will jeopardize their interests.

Yesterday we learned at the American Soybean Association that the USDA is actually supporting this association to some extent. On the other hand, which is a drastic opposite; we have an antagonistic relationship between the government and the potential farmers association.

I was also impressed with the scientific advances, especially in Tran genetic biology (GM) and I can tell that you science has really pushed forward and ours is slightly behind. 5:16 – DS-10013

I notice here that the scientists and researchers are working for the farmer and all research has practical applications. Speaking of our interaction with research institutes, every year our specialists, agronomists, etc. go to Kharkiv and we interact with representatives of the institutes. They provide us with different recommendations and suggestions. So here I learned that those genetically modified seeds are allowed to resist European corn borer without using pesticides. So last year our corn harvest was to a very great extent damaged by the corn borer.

Q: Does he plan to use no-till?
A: Of course you know that drastic transition is impossible. But next year we are going to experiment with it, especially when we are going to plant corn on soy after soy this year. So when we are going to do corn next year, we will be able to apply the 2-4-D herbicide which is somewhat similar to Round-

up. At this point we do not have any Round-up ready seeds yet. So we will be able to plant corn after soy and use this 2-4-D herbicide. So after soy, the soil will be advantageous for planting corn. As far as tillage is concerned, we will have to look at specific conditions. If, for example, we see a bunch of entangled stalks we will need to do some minimum tillage. The biggest challenge for us is those Trans Genic (GM) seeds.
The whole technology is based on these GM seeds.

Again we will need to look into the availability of those seeds and if they are permitted to be used in Ukraine and into the cost factor. Here I heard that the soy yield last year was roughly 6 tons per hectare. In comparison, we grow soy, and we got 2 tons per hectare.

Q: How many hectares of soy do you grow?
A: This year we have planted 100 hectares. Overall we have about 4,600 hectares. We grow grain crops in 2,200 hectares - mainly wheat and barley. We also grow some grain corn.

We don't have any chisel plows and I heard in the U.S. that chisel plows are used once every 5 years. We use regular plows and we also have a drill planter. What usually happens is that after winter wheat where we disk the land without deep plowing we can plant wheat on wheat or sometimes corn on wheat.

14.4. Viktor Lukotskyy

First of all I want to tell you that I have really seen a wonderful country. I saw lots of smiling people, I saw that agricultural production was very well organized, that there is a lot of trust among people so people are not bent on having all those stamps and seals and signatures on all those documents. In many cases a handshake is enough. Other things that are different from my perception based on television and newspapers and I would like to say that America is a much more pleasant and more humane country than imagined before.

Speaking about farming methods, one thing that I was very greatly impressed with was the high management level. And also it was very important for me to meet those farmers and see their actual farms and learn about their life style. Although Professor Tweeten mentioned that small farmers are losing money, I saw that they are having fun, they are enjoying life and they like what they are doing. Their technology was not really a discovery for me because I am familiar with direct planting and no-till. But I have never seen that in practice before with my own eyes.

I was actually experimenting with leaving sea weed in the spring and planting watermelon seeds directly in this green manure and then spraying Roundup, etc. and all the weeds will be gone, the watermelons will grow for 20 days under this cover and here I learned that similar techniques of direct planting will be used for corn and sugar beet. Direct planting is almost the same thing as no-till.

I also liked the GPS technology and at this point Ukraine is rather far removed from that, but Ukraine is still one of the 5 space countries that have similar technology.

I liked what I saw at Pioneer and Monsanto. My attitude toward trans-genetic experience was rather cautions but I saw that they are really very safety conscious and they are complying with all the rules and regulations, they do a lot of tests, and I would like to say that my attitude is now better. Actually in Ukraine we now have a number of Trans-genetic seeds and plants anyway.

Q: What types of crops are these?

A: People are introducing trans-genetic soy and potatoes. It is being done quietly and secretly. There is no way to tell trans-genetic from non-trans-genetic.

The thing is that the economy using Roundup Ready seeds can be 100% better in the U.S. so Roundup Ready seeds can be 100% more effective in Ukraine because of very high fuel and seed prices.

CEI: Roundup Ready is also very effective in dry conditions such as they have in Ukraine.

Again I became convinced in the U.S. that we should be plowing not more frequently than every 5 years because our climate is very dry and every time we plow, moisture evaporates.

Another reason for using no-till technology is that our top soil gets blown away by the winds so the erosion is tremendous and that is an advantage in using no-till and low-till.

Q: Is he going to be using low-till and no-till technology?
A: Buying new planters is very expensive for us, but I have some good ideas about actually putting together a previous planter using whatever equipment we have following ideas from John Deere technology. So I have some good ideas about making a 3 disk planter.

I understand, even for us, it is too expensive even for large farms to buy American equipment. Obviously here you have subsidies and our banking situation is different. What is realistic is to either make adjustments to existing equipment of to forward those adjustments to friends who work at plants (jury rig essentially something that is more effective and more appropriate).

Q: What type of economic impact would this have on his farm?
A: At this point, plowing, cultivating, and disking constitute 80% of my expenses. So if I convert to no-till/low-till technology, I would be able to increase productivity by at least 300%. At this point for the complete cycle I spend 100 liters of fuel per hectare. Now, if I just use fuel for planting, it will drop to 5 to 10 liters. For herbicide applications I will also need 5 to 10 liters. So, instead of using 100 liters, I will be using 30 liters.

At this point we do have our top soil deteriorating and by using no-till and low-till we will be able to increase the amount of humus in the soil, also to decrease the number of runs of heavy equipment on the fields, and again, when there is a lot of traffic, the soil gets compacted and aeration breaks down – which should be prevented.

You know that it is very important that crop residue provides a barrier for erosion. For example, with the high winds, gullies 5 meters deep would get filled with top soil.

Professor Tweeten in his presentation mentioned that for a number of small farms, all farm income is extremely important. I am trying to diversify my operation by providing leasing services and I lease out my tractors, my equipment, and I also act as a go-between. I know people, I know places that require crops and I charge a commission by finding references as an intermediary for commerce.

Q: Is there something before the tour that would have made the tour more effective?
A: Actually what this Center could have done is to provide the itinerary or general information about what we were going to see that would have helped me to be better prepared. If this basic information had been provided here I would have been asking more in-depth questions as I would have familiarized myself with more information beforehand.

Q: Is there anything we could have done better on the tour?
A: Actually I liked everything. Speaking of the intensity of the program, it could have been more intense. I would not have minded seeing all of America. In addition to the business part of the program, I also liked the cultural program and I have been to the zoo and other places. Realistically, the program could have been more intense. We could have done 2 or 3 visits per day but I realize that this might have been hard for some participants. I liked absolutely every site we visited. None was boring or not of interest.

Actually, in addition to the farms, I was very interested in the visits to Cargill and the grain elevator operations and the Chicago Board of Trade although I don't know much about commodity exchanges and such. At the same time I was able to explore a number of issues and have different discussions with my fellow participants.

On the question of dissemination, first of all I am going to talk to my companions and partners and will suggest making some changes in terms of contracts and procedures on how we do business together. Also, I am going to talk to our local press and I will be working with them as well.

It was very important for me to see how the farmers live, their life style, and the way they organized their production.

14.5. Oleksiy Piven

Actually I have seen a lot here and I would like to tell you wholeheartedly that everything were was really wonderful and my conceptions about what I had learned in high school and later were really completely turned around.

Obviously, when a country has a strong economy, each and every industry should be working effectively and they are. I got confirmation of that in American agriculture when I saw that on the farms, at the institutions, at the laboratories, and in the companies we visited. I think your government has a very positive attitude to the farmers and the government is trying to help them – which really produces results. I am going to use all that, not only on my own land, which is 80 to 100 hectares, but also on the land of my big farm of which I am general manager and that is 1,000 hectares.

Speaking of no-till, obviously the costs are very low and that is a very good foundation or reason for using no-till. The results here for no-till are very impressive. That means that we will be able to use no-till with very profitable results.

I also liked the application of the GPS system, especially for soil sampling and testing. The reason is that in our country if you do not make your own soil tests, the government and institutions will provide this service once in every 10 years.

I will tell you something that might be of interest to you. Before planting winter wheat and sugar beets, I collected those soil samples myself and I took them to the Soil Research Institute in Kharkiv. They accepted those samples with a lot of reluctance and they made me feel that I was imposing on them.

As far as farmers operation go, of course they are very well equipped with different machinery which is very similar and their level of production is very similar too. A lot depends on their acreage. I was especially impressed with Peggy Clark's farm although I liked pretty much everything.

As far as what I plan to do when I return home, I have firmly decided to use no-till. The second thing is that I am going to plant soy. What is interesting is that soy can be used in our crop rotation instead of sunflower. At this point soy prices are pretty much level with sunflower prices but I feel they will be increasing. Thus growing soy will become more profitable than growing sunflower.

Even without government support for soy, I believe that prices for soy are pretty normal at this point. Commodity soy goes for roughly 700 to 1,000 hryvna per ton and the soy seeds go for 1,500 to 2,000 hryvna per ton. So I find those prices very acceptable. It would be very important that soy be bought and processed in the Kharkiv oblast. Let me tell you one story. Twelve years ago I experimented with soy, and I did this on the collective farm in the Pervomaisk district. So we grew the soy and shipped it to Odessa because nobody in Kharkiv wanted to accept it. It took 8 months and a loss to get our money back.

CEI: Ukraine is a net importer of soy.

I have never seen this soy bean meal with my own eyes. I know in the past when we submitted our sunflower harvest to the government, we never got the sunflower cake back. At that point we had up to 1,000 cows and 2,500 cattle total and they promised they would get us the sunflower cake back. But that never happened. So they told us they were shipping that to Belgium and Holland. I felt that it was none of my business and I did not interfere.

During our study tour we visited Pioneer and I have known this company for a long time. At some time back in the 80s we bought Pioneer seeds in Odessa and I should tell you that their seeds were always of high quality. Using those seeds on our private plots we were able to grow corn by using industrial technology. On 300 hectares, without using no-till, we were able to get up to 55 to 60 hundred weight centners per hectare. For 2 or 3 years our farm was a show piece for the oblast. So we had oblast seminars in the 80s.

I would like to say the yield I mentioned was certainly not the highest, because what happened was that we used harvesters and combines to harvest the corn and they did a very poor job. So we had to harvest some of the corn manually and it took us forever into the late fall and the temperatures dropped to -5 degrees centigrade.

CEI: On the tour he learned about no-till and he plans to do that. He is also going to plant soy.

I have some general observations now. I was very impressed with the high hygienic standards here and the high level of culture and interpersonal relationships. I was impressed with the desire of Americans to explain everything in detail. Nobody buzzed me off; people were very willing to share and show and were very friendly. I will also try to buy seeds only from the companies we visited if it is possible.

Q: If you do all these things, what effect will it have on your profitability?
A: I really think that using no-till will have a very high economic impact so I hope we will be able to reduce our costs by 50%, and I specifically mean on fuel, machinery, salaries, and depreciation.
CEI: That would be wonderful!

The thing is that we really should be using the same methods farmers are using here. In other words, work quickly and work effectively, because our plots are much more difficult and demanding than here. That will produce the desired effect.

Q: Is there something information-wise we should have done before the tour to make it more effective?
A: I was curious about seeing absolutely everything and I would like to thank Belal for all the information he was constantly providing to us. Of course we were getting more and more information every day. I personally am interested in livestock so wish I could have talked to someone about milk and milk cows or could have seen them with my own eyes.

Actually I hope conditions will be right so we will be able to go back to 1,000 head or possibly fewer. Our present day policy is to keep as many head as possible. But let us say that I was the Chairman of a collective farm for 25 years and our best yield for a cow was roughly 3652 liters per year. Here, farmers get up to 10,000 liters per year per cow. Quantity of cows is not the decisive factor. It is a question of a balanced diet. I would like to share with you that livestock wise, the best results were in the 1980s roughly so we were using the following diet in those years. For each liter we got from the cow, we gave 0.5 kilograms of prepared feed but those feeds were of rather low quality. We would also give the cow 200 grams of sunflower cake by-products, 30 kilograms of fodder beads, 67 kg of hay, 50 kg of sugar beet by-products, as much straw as it could eat, plus 30 kg of silage. That would give us a chance to get 10 to 14 liters of milk per day.

Regarding dissemination, I am going to talk to our village council; I will talk to farmers in adjacent villages, and people at the Dokuchaev Institute so it might total up to 1,000 people.

14.6. Oleksandr Kontsevych

First of all I would like to thank the Center for Economic Initiatives the organizers of this program, for a wonderful study tour. It was very interesting. But again as I said at the selection seminar, I personally did not hope to see anything particularly new because we had theoretical knowledge of information before.

I got the brightest impression from two things: no-till and global positioning systems. I was very impressed with GPS applications for fertilizer applications and for harvesting. I was also very impressed with the machines and equipment I saw here: tractors, planters, and drills such as made by John Deere.

Also great were the visits to Monsanto and Pioneer. I can say that my doubts as far as Trans Genetic forms of corn and soy beans have been dispelled here. It might be one of our national idiosyncrasies that we often look at things without actually requiring proofs. I really believe blindly in things and I specifically mean a belief in the farm in the future and the potential damage to the farm in the future from using those Trans Genetic crops.

Although at this point the average life span of a man is 56 years, and I really believe we are poisoning ourselves by what is available at this pint such as all those chemicals that are used with little or no control such as air pollution.

I can say that I really that I am impressed with the American farmer who can till as much land as I have just with their family and I have to employ 5 to 7 workers just to do that. No till is economically advantageous and very tempting for us. The major concern is preserving moisture in our top soil. I just look at your weather here and I can tell that even if you plowed, crops would grow anyway.

For us, the mulching of crops is very important to maintain moisture in the top soil. And our challenge is that no no-till machines are being produced in Ukraine. We will need to figure something out.

I am also active in the Oblast Farmers Association and I really believe we should be encouraging cultivation of soy and corn. I was dreaming about growing soy myself, but it is a little bit difficult since our climate is so dry. Much depends on the availability of acceptable varieties of soy. It is so dry that the crops are literally burning.

The thing is that non-profit coops are another very important concept that we should be developing. Because during the privatization process, during the transition from the State owned property to Private property, all those meat packers and grain processors and elevators became privately owned and formed a sort-of monopoly which is a danger and a headache. I believe they could have become something like your non-profit cooperatives and I think that is the idea we should be developing somehow. But I believe it is pretty much a matter of the future because hopefully that when we accumulate enough finances and are funded, we will be able to create our one coops both for storage and processing. We don't have any other alternative but to unite, create our own market infrastructure, and we have to challenge and stand up to all those monopolists.

Q: The monopolists are the grain storage owners?
A: Yes, that is correct.

You know that during the planned economy we had one elevator per Rayon, one dairy processing plant per several Rayons, and obviously there was no competition. Now all those enterprises have been privatized and there is not much competition either. And of course associations and coops are extremely important for us because here in America the term farmer is used synonymously with the term agricultural producer or grower. For us, we have major different classes or terms for agricultural producers. The first is "farmers" that is somewhat sidelined at the moment by the government. The second is the former collective or state farms – the large operation that again get the majority of attention from the government institutions. So that is why we small farmers need to associations and cooperatives to maintain our viability.

Q: How many hectares do you have?
A: I have 550 hectares at this point.

I want you to know that I have been doing conservation tillage for some several years and I strongly believe the future belongs to these conservation tillage methods: low-till and minimum-till. The thing is that we hope to start doing it this year but we have very serious problems, especially in the recent years when we have problems with yields and finances. Our machines are old and the machines that do no-till are not produced here. We cannot apply for equipment loans and that is a major limiting factor – the absence of long term loans.

Q: You said that GPS systems are a very important idea. Is there something that you can do?
A: The thing is that obviously GPS should obviously be a federal program. At the same time, in each of the Rayon in the Soviet Union, we had pretty much the prototypes of agrochemical agro-service and cooperatives or plants providing services to the farmer. Of course a lot of things were stolen and lost, but at least we could have been building on this base. There is nothing we can really do now until the government sets up the GPS infrastructure.

It will be very important for us to set up non-profit coops to provide agro services to farmers and different entities. I don't really think it will be realistic for us to put up a satellite but still we should be creating our own infrastructure in terms of agribusiness.

CEI: Actually I wondered if USAID should be pressing the Ukrainian government to do that.

It is really worthwhile doing, but as far as American funding is concerned, I strongly believe that, due to our national idiosyncrasies, it is very important to provide target funding for specific programs because often funds do not reach the final consumer.

Speaking about the economic effect, we are interested in Trans-genetic soy beans. I also heard at Monsanto that they are developing genetically modified sugar beets. At this point we are really losing money big time on sugar beats. So if we are able to get hold of GM sugar beets, we will be able to reduce our costs 3 to 4 times.

Wider expansion of soy is actually very important, using no-till to preserve moisture, and to reduce the number of runs on the field is important. Storage is extremely important although I would like to say that although we do not have grain silos the same as America, but somebody has started manufacturing them in Ukraine. So the production is already going on.

If we had our own silos we would be able to reduce our costs by 30%. Also, we lose a lot of money on transportation (15 to 20%). If we cannot dry it, there is a lot of loss to fungi, etc. There is obvious a very strong price difference between fall and spring. In the fall we sole our grain for about 200 hryvna but in the spring it is 600-700 hryvna. So we are talking about a 300% difference.

CEI: If they have bank loans that are due they have to sell at the low point. So this all assumes they are not taking out bank loans.

You are right because again, our loans are very expensive and we pay about 25-30% interest rate. Then it is very difficult to get loans from the banks so sometimes we need to apply for private loans and the interest on private loans can go up to 60% in hard currency.

As I teach agriculture, I am going to talk to my students and my regular classes; I am going to talk to the farmer's association, to the radio, television and the Rayon newspaper.

14.7. Valeriy Chmut

One thing that really impressed me was that each American farmer is able to obtain a huge amount of analytical information. Specifically I am talking about weather conditions, information from futures and spot markets, and for that the farmer pays $250 per year. And this subscription fee is very little compared with the huge advantages the farmer obtains from using this information. I see no barriers that would prevent us from using a similar analytical service in Ukraine. We are founders of the Ukrainian futures exchange that was created in February of this year and I learned a lot from Professor Tweeten's presentation at the Ohio State University. That visit was the most memorable for me.

Unfortunately we did not have enough time to spend at the Chicago Board of Trade and I could have spent all of my 20 days of the study tour here although that would not have been enough. I understand that in our country just as in the U.S., we should be trying to recruit not necessarily farmers but elevator owners and large traders who trade at the board of trade in Ukraine.

I also liked the following scheme where American farmers actually sign forward contracts with the elevators in the spring for crop delivery and the elevator operators hedge their risks at the futures market. And I think this scheme of using both forwards contracts and futures contracts at different levels is perfectly applicable in Ukraine.

CEI: There are two things that they saw. One was the hedging concept and the futures market - the low risk guy and the high risk guy. Hedging is high risk. The futures market is basically giving a prepayment to the farmers. So this scheme is very appropriate to Ukraine.

I also understood that the Board of Trade and Commodity Exchanges could not exist without government assistance. The government, I discovered at the Chicago Board of Trade, supports the minimum and maximum price for soy and other crops. So they told us on that particular day of our visit the minimum price for soy was $5.68 a bushel and the maximum price was $6.28. That means that there cannot wild oscillations in the price. And there are actually government institutions that govern those exchange relations such as the national Securities Commission and other regulatory agencies.

I was very impressed with our visit to the cooperative that owns a feed plant and that is something that I think we can do under our conditions because a number of private farmers and a number of farm companies own large plots of land. The thing is that they do not own their feed plant and they do not own their own elevators. And that is something we should be working on. This was a feed plant owned by Land-o-Lakes in Washington Court House, Ohio.

I was also impressed here with the fact that the American government establishes the minimum prices for major crops. It is also important that those prices are different in different states and the basis price depends on the distance between the farm and the elevator in the port of shipment. For example, in Ukraine the situation is different. The government establishes the same price, for example wheat, at $400 per ton and it stands for both Odessa and Kharkiv although understandably, for Kharkiv growing we need to pay additional $12 to $15 per ton to ship it to Odessa. Odessa is the main terminal.

Q: What of all these ideas will he be able to take advantage of and use back in Kharkiv?
A: Like what I said, I am one of the founders of the Ukrainian Futures Exchange and specifically I am going to be talking to the national association of Ukrainian exchanges in July in Kiev and all of them know where I went and they are looking forward to listening to me and what I saw about the operation of American exchanges and about all the useful information I have learned here. At this point a committee on commodity markets s being created in the Rada in Kiev. Also the Board of Directors in our exchanges includes 4 parliament members and it is very important for me to convince them on the feasibility and practicality of creating commodity exchanges and boards of trade because lots of them have no idea at all about how those entities operate.

Actually I liked much more in America much more than I have described now. I was very impressed with our visits to Monsanto, Kinze, John Deere, Pioneer, and to specific farms, and no-till technology although that is of more interest to the farmers in our group. I have just been sharing information that I will be able to use in Ukraine.

CEI: It is obviously difficult to quantify the benefits in his case since there will not be direct savings. The long term impact can be great.

I am going to publish an article at the Agro-Industrial Complex which is a highly respected journal in Kiev. Also I will talk to Kharkiv TV and radio reporters. I will also talk to the 4 Rada members who are sitting on the Board of Directors and our Ukrainian association of future exchanges.

Q: How could we have changed the tour so it would have been more effective for you?

A: From my point of view I would not have minded spending all the 21 days at the Chicago Board of Trade and with Professor Tweeten.
CEI: If, after meeting with the 4 Rada members you decide that more training at the Chicago Board of Trade would be helpful to Ukraine, we will try our best to arrange that training.
Q: USAID had approached CEI to consider further training for Traders. We are trying to see if that would be useful and practical.
A: Speaking about this study tour for Ukrainian traders, one of the things those 4 parliament members can do is to partition USAID to include it in their plans. Speaking about the itinerary for such a study tour, I believe more general analytical lectures such as Professor Tweeten should be included. Also, it would be a good idea to show them trades at the Chicago Board of Trade, provide them with an opportunity to communicate with brokers, and also some representatives of the Chicago Board of Trade so people who actually make it possible.

It would also be a good idea to bring them to the headquarters of such trading companies, major grain traders as Cargill, so they would be able to follow the whole chain of grain in the U.S.

It would also be a good idea for them to set up a meeting at the national futures and securities commission.

Q: To whom should we write to request such a program?
CEI: We suggest you submit the request to the U.S. Ambassador with a copy to Ivan Shvets at USAID.

14.8. Lyudmyla Berlova

First of all I would like to say that I really enjoyed the overall reception we have received here. I liked the openness that I saw in America. It is very different from the perceptions of Americans from what we had expected. We were told that Americans would be very contrite, would be smiling but would be shutting down essentially and being very secretive. What we saw was just the opposite and they were very willing to share.

Speaking about the professional benefits, we have a parable in Ukraine about an American. "How can an American man loose money particularly, if he invests in women, horses, or agriculture?" As I deal with all those issues, I am to some extent responsible for the fact that our farmers and agricultural producers are poor. In my line of duties I am responsible for infrastructure development, commodity trades, and crop sales and price monitoring. I was specifically interested not only in technological issues, but in sales as well as pricing aspects. One thing that impressed me as I visited a country mart was an agro-service cooperative. The mechanisms they have developed there, the relations between the farmers at the low level and top level actually deserve implementation in our country. There is a "but" here. Actually this cooperative idea is one that could have been developed 2 years ago but we did not use this opportunity as we privatized all those who were packers, dairy plants, etc. One thing that is still run by the government and we could turn into a cooperative is the 8 grain elevators of terminals we have in the Kharkiv oblast. So at this point in our oblast we have about one hundred and sixty micro-coops and each and every districts or Rayon we have several coops but not only do they deal with agriculture, but they provide services as well. They are specifically working with farmers in rural areas. So they do everything. They fix shoes, they do construction, they assist farmers in sales, they collect milk, etc. So they are universal coops of sorts.

Also I liked the visit to Ohio State University and our meeting with Professor Tweeten who provided us with a general overview of American agriculture and the educational system and also spoke of futures trade although he spoke of fundamentals essentially but that was also very useful. I think it would be a

good idea to invite Professor to Ukraine and hope you will make it possible and could lecture at both agricultural universities in Kharkiv and talk to the farmers.

CEI: This time Professor Tweeten showed interest in doing that and I (Belal) took the opportunity to encourage this idea. He is a very knowledgeable and brilliant person and would bring great benefits to Ukraine. He knows almost everything about agriculture.

As I work for the Department of Agriculture, I was very interested in the work of our counterpart here in Ohio. At this point the situation is that, although have transitioned to a market economy, and we are trying not to interfere with the producers, but it becomes pretty absurd because we are sometimes afraid of ourselves. Here I learned that the government establishes minimum and maximum prices. And again I think we should learn from them and make a rule for ourselves not to be afraid of more strict administrative measures from which farmers will benefit.

Q: What do you mean by that?
A: I am specifically talking about providing tips to the farmers as far as price monitoring is concerned but also about certain crops to grow such as soy beans or sugar beet, etc., as opposed to trying to sell wheat at the foreign markets where we obviously cannot compete because of the low quality of our wheat grain.

I was very impressed with the monumental facilities of John Deere. We are working with John Deere dealers in Ukraine and trying to help them sell their machines. Our visits to Pioneer and Monsanto are quite a discovery for them. Of course we have some research laboratories but what I saw there about their research was absolutely shocking. I am very pleased that you included visits to those companies on your itinerary.

CEI: She mentioned machinery, and one of our disappointments, not on this tour but on the equipment tour that we are having later this year, was that Malishev makes combines and other things, sent very low level people to apply for the program and we selected one and he dropped out. They should have sent some high level officials.

The thing is now that there is actually a new administrator at the oblast level who is responsible for technology policy and his predecessor, who is now in the oblast administration, developed a whole program of conversion from former military plants to civilian plants for manufacturing agricultural machinery and that is a very good program. And as the national administrator of agriculture pointed out, that is the only program of that type in Ukraine. The Minister of Agriculture came here to Kharkiv to comment on that and praised us for that.

Our visit to the American Soybean Association yesterday was mind-boggling. I guess I can use my noted from that visit and go ahead setting up associations. Please make sure you provide me with a printout of that presentation (this was done).

I have actually been working with auditors and boards of trade for about 12 years since their inception. That is why the visit to the Chicago Board of Trade was so extremely important. Again, we expected more from this visit, but the three of us stayed back and talked privately to the gentleman who worked there and answered many questions. The creation of a futures market is very important and that is priority number one for us and Valeriy Chmut is trying to promote this with the Ministry of Agriculture.

In Ukraine there are 35 exchanges responsible for trading agricultural products and two of those exchanges are in Kharkiv. I am talking about the Kharkiv Commodity Exchange, which Valeriy represents, and also Ukraine Commodity Exchange. The Kharkiv Commodity Exchange has been working in the grain market for 12 years and the Ukraine Commodity Exchange for three years. The Ukraine Commodity Exchange has been quite successful and they became a member of the National Futures Exchange Association. So they have paid their membership dues at a recent seminar.

My responsibilities are very wide as I work directly with management at the Rayon levels and we do have seminars or briefings every week. I take part in management programs. I take direct part in trades and collect requests for trades, and work directly with the Rayon managers. It is even better communication wise because the information I provide to them will be communicated to the farmers in their Rayon.

I also lecture at the Presidential Academy for Development Service so we are all the civil servants who are sent for training for four oblasts. So I lecture on commodities and also on management. And I also provide interviews for all the local newspapers. All the time they ask me about prices and about commodities and about exchanges and price structures.

14.9. Nataliya Savchenko

In short, she was once again very impressed and convinced about no-tilling, because at this point she saw about 50% no-tilling and 50% conventional tilling. At this point in time she is fully convinced that she can implement low-tilling technology. She was very impressed with Roundup technology in the U.S. and she will look to use that technology in Ukraine.

In our country back home we sort of cultivate too many crops and we are spread out too thin. And I have been convinced once again that there is no point is spreading out to too many crops. We should concentrate on a few of them.

Q: How many crops does she grow now?
A: About 7 major crops.

I was also impressed visiting a lot of farmers and seeing that even though they have money, they prefer to work themselves thus reducing the cost of production. For example, I have 3,000 hectares of land and 500 cows. But I have 120 people and it is too expensive for me.

Q: If you get rid of the workers, how will they earn an income?
A: Our farm is located close to a regional center so we are not an isolated farm. I do not believe there will be any problem with jobs. I am in the Volchansk Rayon. Actually we have a problem getting good people because they leave. The city is close by and there is a timber plant and other plants so there is plenty of work and it is difficult to retain people.

I was very impressed by the relationship between the state and the producers. Back home we are still waiting for the time when they are going to give us the right to do something on out own instead of us pushing for the rights and regulations. We learned one very important thing and that is how to partner together and push forward our agenda and lobby for it.

The cooperative movement in the U.S. was a very interesting structure where the relationships between the producers, end users, marketers, and processors, are closely organized. We have a huge clientele. Everybody benefits out of it.

Q: Do you think you can set up something in Ukraine?
A: We dropped a big chance when the conversion of these industries was taking place. At that time we should have done this cooperative movement. At that time the cooperative movement would have been very successful. There are still lost of government institutions which can be converted into cooperative movements. Basically, that type of cooperative movement is taking place right now. For example, sugar companies need sugar been so if they form a sort of cooperative then both can benefit. The milk producers also need a cooperative movement for the supply of milk. Nobody wants to run an industry with chaotic supplies. So they are thinking of doing that right now.

For example, lots of milk companies and butter companies are thinking about this. They are starting to put their industry back in order and as they are trying to do this they need a good supply of raw materials.

This is the first year they are actively cooperating with us and they have given us the transportation and other things to make sure we provide them with the milk. In her Volchansk region, the food processing industry is very dormant??___. They have milk, meat, oil extraction plant, and feed plant that are very dormant?? All the plants in that region are depending on them?? So slowly things are getting streamlined.

Q: Which ideas you learned can you apply back in Ukraine?
A: First of all I will re-evaluate which types of crops to cultivate (reduce the number of crops). That is number one.

Q: What economic impact will that have?
A I am going to calculate from each of our crops.

She is going to go for cultivation and she was very impressed with what she saw in the U.S.

Q: And why will you go into soy?
A: For example, I have done some investigations and market studies about soy and soy is very good right now. It has a demand. We can sell the soy, bit I did not have the slightest idea of the technology including selection of seeds which is the main problem. I read something but that is not good enough. So now I am confident enough to do it.

In our region there are people who are actually growing soy although it is not a large amount of land, but again, they are doing it. It is encouraging. Volchansk borders Russia so is in the northern region of the Kharkiv Oblast. The farmers who are growing soy are in the southern regions of the Kharkiv Oblast where the climatic conditions are very different, even within a region.

Q: For the people who do grow soy, what is an average number of hectares?
A: If a farm has 2,000 hectares, the farm might plant 50 to 100 hectares of soy maximum. It is still not that big.

Most of the farmers in the area would prefer to cultivate sunflower, but unfortunately, with sunflower the rotation cycle is seven years. And it also deleted nitrogen from the soil. Since it is economically

viable, people grow it, but it is harming the land. Soy puts nutrients back into the land. At this point there is a market demand for sunflower so the amount of land under cultivation is increasing, but that doesn't mean that the prices will increase.

I am going to be in communication with 20 farms and she will communicate through an article in an agricultural newspaper. There is also cable TV in my area and I will try to do something there. I will do all that, but the most important thing is that I get high results in business.

Q: Are you going to reorganize your farm?
A: I am a very educated person and have two degrees. I have a degree in Education and an agricultural degree. So I am constantly in touch with literature in my field. But, this tour to the U.S. changed my whole outlook.

Q: How could we improve the tours?
A: I would like to say that this program really embraced all the aspects of American agriculture and we saw just about everything including farm operations, relationships with government agencies, and research installations, etc. So pretty much everything was included and covered in this tour.

I would like to thank Belal at this point who knows so much about both American and Ukrainian agriculture so he was pretty much able to guide us by pointing out the things we may not need, but also pointing out the things that might be of benefit.

As far as suggestions go, I think visits to cattle and dairy farms could have been included since most of our farms are multi faceted and they have cattle as well. So including livestock in the grain program would be a good idea to many of the participants.

14.10. Valery Vertsun

The fact that this study tour has been very beneficial will certainly result in my future application of the things I have learned here. I have no doubt that will happen. One of the tings I have learned here is a general approach to agriculture in your country.

The most important thing is the boosting of productivity and efficiency. I noticed that during your acreage you have extremely productive machines. I am pretty confident that on our farms we will be able to use machines with equal productivity and that will be a good idea.

I think it was a very good idea that we drove through the corn and soy belt in this area where they have been growing these crops for many years. So basically what you have here is a stable crop rotation. The idea is to gain the most profit from those few crops. It doesn't mean that we should replicate your crop rotation under our conditions, but it means we should add soy and corn to our rotation, and leave sunflower and wheat, the crops that are very profitable at this point. In other words, the idea is to expand our crop rotation range and replacing those two crops. At the same time we should get rid of a lot of other crops we don't really need because at this point we cultivate 15 different crops. We should get rid of some.

Q: What crops should he get rid of?
A: Among the crops that are not profitable I can name millet and barley.

Another thing we noticed here is that farms specialized either in livestock or crop cultivation. That is something that we are doing on our farm. We are doing grain production and we have reduced the

number of crops that are grown and here in America I found confirmation for some of the ideas I had before.

So after returning home I am going to talk to our farm council and I am going to show them my video tapes and I will specifically talk to experts from different divisions and I am going to tell them everything and show them everything. After that I will start working with our agronomists and we are going to calculate the efficiency of the new rotation plan.

We all know that agriculture always involves great risk. Here it was raining a lot and we noticed that some farmers had just finished harvesting or were still harvesting. In our country the situation is just the opposite. It is too dry. But the idea is that a certain technology, certain strategy can be developed for any weather conditions. The idea is to minimize risk by using effective technology. Even if the minimum amount of rain falls, we will be able to get some profit. Again, it is very important to develop very precisely these research based technologies.

It is a part of the Russian culture to hope that maybe it will not happen. Maybe nothing bad will happen. Some people think that maybe weeds will not be a problem this year, or maybe we will get the right amount of rainfall. That is wrong and we should really be using research based technologies and if we run out of money we should find the money. And make sure we do apply the right amount of herbicide. If the technology has the right amount of herbicides, they should be applied.

Also I got a very positive impression from spending time with the farmers. All of them gave a very warm reception to us and all of them were very friendly. So I would like to thank you and them.

Q: What specifically did you learn from the farmers that you will be able to use?
A: Speaking of no-till, I am not going to tell you that we are going to apply no-till 100%, but we will be able to do elements of low-till technology. I am not going to tell you that we are going to use Roundup Ready soy beans, but we do have an option of using Roundup after planting before crops emerge (pre-emergent application).

I was very impressed with the GPS system and at this point we do maybe 2 or 3 soil samples on an area of say 50 hectares and that is not enough. It is very important to know the precise chemical content (nitrates, phosphates, potassium, etc,) of each piece of land. If we know that it will reduce our costs in terms of fertilizers, fuel, etc.

We were going to do a soil test on all our acreage this fall, but I realized while on the study tour that it is better to pay more to make a very in-depth and detailed specific analysis and to increase the number of samples many times.

Explanation given by Belal Siddique
In America we plot the entire farm and on each plot we take one or two samples and via GPS we control which area has been taken. Then for each sample, we may know that the content is different or deficient and may find that one plot has lower phosphate content and this needs to be increased. The idea is to bring the entire field to the same soil condition. You do this by knowing exactly where you are on the field at all times and the computer controls the chemicals that are to be sprayed on each plot. The equipment carries a variety of chemicals and fertilizers so it can apply the right fertilizer to each plot of land. This is very precise and they will be able to use a portion of the idea manually even without a GPS system. The key is to make very extensive soil tests. In Ukraine the fields are very large and it is almost impossible to do that manually.

We do know that during the vegetation periods plants are supposed to consume a given amount of nitrogen, phosphates and potassium. If one element is lacking, for example, we will not get any good results. The whole idea is to provide very balanced fertilization.

I was very impressed with the storage facilities here with dryers inside the grain silos. As we are going to introduce soybean and corn, we have to seriously consider introducing those facilities. I was very impressed with the "mini tower" here which is a grain tower and it costs $450,000 in Ukraine but $130,000 in the U.S. Obviously the sellers in Ukraine make a huge profit. The reason why we need those grain dryers is that if we are going to harvest corn, we must do it in October when it rains a lot.

The weather here during the study tour is not typical. It has rained almost every day. Back home in Ukraine it has not rained since we left.

Q: How many hectares does he farm?
A: 6,000 hectares.

Valeriy is a new type of farmer. Unfortunately he does not own the land, but he leases the land. He is a very good farm manager. He could really use storage facilities for a farm that size.

At this point my partners have been dealing with exports for a long time and they export corn, winter wheat, etc. For us, there are different grades and the grading of crops is very important. That is how the traders make their money – by cheating the farmers. They sell the crops as low grade but sell them as high grade. So to avoid this down grading, my partners and I are thinking of purchasing a railroad spur and putting storage facilities and grain dryers there and essentially creating our own grain terminal.

My farm is a good example of a complex essentially – starting with production and ending with exporting. Although we do have different operations, which are registered as different entities with different taxations. We do not we do not place all out eggs in the same basket. At this point we are not actually talking about putting up a railroad spur, but purchasing it.

Q: How much soy do you plan to plant?
A: Our rotation will include corn, winter wheat, soy, sunflower, and fallow (uncultivated that year). That will be about 20% for each of those five crops so there will be about 1,200 hectares for each crop.

Q: Are you going to process the soy?
A: At this pint we are not considering processing soy. We are talking about selling it if the prices are good.

I would say that our domestic prices are comparable to yours even on the domestic market. At this pint Europe imports soy so if we start our domestic production that might provide good results.

I plan to talk to 2,000 people. I will write an article and have an interview with the local newspaper.

14.11. Viktor Severyn

I have seen a lot of things in the U.S. all these days and I am more interested in reorganizing the structure of my entire farm and the technology of production, the culture taking into consideration all the climatic conditions that we have in Ukraine. Of course had heard a little about the U.S. beforehand,

but now I have seen it with my own eyes. We very quickly became adjusted to the situation here in the U.S. so whatever was necessary we did. People have been very nice and kind. One thing he found very interesting in America was that that amount of land cultivated by one person here is much larger here in the U.S. than what they do in Ukraine. They liked the no-till technology but of course all the conditions for using no-till are not there in Ukraine. Still what they saw here they can slowly replicate in back in Ukraine on 3 to 10% of the land.

They have been cultivating 15 different crops and they understand that they have to reduce this number to about 10. They cannot reduce this further because the farm is not geared to that type of operation.

Q: Will the government allow them to reduce the number of crops?
A: Basically there are some political items such as sugar beet since the factories are dependent on the sugar beet cultivation. So those plots of land are fixed.

Lots of stress is being given by the local government and the administration to cultivate soy.

CEI: That is something new.

They are convincing us and pressing us a little bit. There are already some factories coming up where they are making soy milk and there are soy processing plants. The price is not bad. For example, they can sell soy at $1,500 per ton and the seeds can be sold for $3,500.

CEI: We know Kupiansk Milk is buying soy.
A: Borovskoy Milk is also producing soy milk.

There are difficult climatic conditions, especially this year, are very dry so the technology is still not worked out. After what I saw here to the U.S., I have changed my attitude and a lot of questions can be re-evaluated and soy cultivation can be started. We understand that soy cultivation is good because it is good for the soil and other things. He can also do the minimum tilling and it doesn't destroy the soil. The only restraint now is the technical resources. And we are working to acquire that new technological equipment. The wide use of herbicides is for both protection of the land and also the plants. Practically we can consider using 25% of the land for soy cultivation.

Q: How many hectares are there on your farm?
A: About 4,000 hectares. That would mean about 1,000 hectares for soy.

CEI: That would be a super achievement.

They are considering the use of trans-genetic seeds. Already they are using lots of chemicals in the food system and they are over-using land and losing moisture so from all points of view, trans-genetic foods are the ultimate solution. We are already eating all sorts of "rubbish" and nobody talks about it.

CEI: Americans are eating more trans-genetic foods and are living longer. Of course we do not know if there is a relationship.

The atmosphere in America is much cleaner than in other countries. We have visited many farms and there are devices for cleaning the air of all the smells and other chemicals. The U.S. has much stronger chemical protection laws than other countries. I really envy you that you have done so much better than we have. The country is very beautiful and well managed with all the flower beds and beautiful

green lawns. I have not seen this in any other country. This is part of the culture and we will take back good impressions. Last year I saw one lawn mower in Kharkiv.

In the fields I did not see any manual work. In some of the factories we saw manual labor in the assembly operations. That is merely a question of economics: mechanized labor or manual labor. Ukraine now had cheap labor and we need to use this.

Dissemination: He is one of the leading farmers in his region and he has given lots of interviews to newspapers and television and he is going to follow-up on that.

14.12. Mykola Zasukha
(Zasukha means Drought)
I have been working in agriculture since 1970.

The first thing I am going to do when I return is to share my impressions of America that I saw with my own eyes. Thanks to your program I had a chance to follow the whole cycle of grain production from level zero starting with growing to selling grain and trading grain and processing grain.

Here I noticed that a lot of farms have a narrow specialization and they would cultivate two or three different crops and that is it. On the other hand, we do pretty much everything. We do grain crops, we do feed, livestock. Also we have an all together different vision of what villages are all about in the agrarian section in the country in general, in our oblast and in our rayon in particular.

Your ideas of no-till are not really new for us and actually our volumes are larger than your farmers. The thing is that you cannot really apply no-till 100% because we have very different conditions. Our climate is different, the weather is different. Whereas here you have rains every day, we do need to avoid deep plowing to preserve the moisture in the ground for the winter.

It was great that we had a chance to visit so many large companies such as Dupont, Pioneer and a number of other facilities. We have been cooperating with all those companies. We have been buying seeds from Pioneer and Monsanto, etc. and all those seeds have been having a positive economic effect. Today it is important for us to go back to soy cultivation. For me it was very important to see how soy is produced in this country. I learned about new herbicides such as Roundup that can be used on soy acres. I asked the American Soybean Association if Roundup can be used for conventional soy grown from non trans-genetic soy and their answer was positively "yes". We can use Roundup. That is what we are trying to do. We are trying to increase soy acreage and this particular crop has become economically advantageous in our country at this time.

About two years ago we purchased a Kinze planter and here while visiting the Kinze Company I asked them for 6 bearings. The reason is that the old bearings on the Kinze planter wore out. So I asked for new ones and they very kindly provided them to me. I am very happy with this Kinze planter. It is extremely efficient, extremely reliable, our operators can see where the rows are and they can see the regulated density of planting. So that is a very good planter. It was interesting to see that they do not produce that model any more. I hope at some point the manufacture of planters and such will be set up in our country as well although we do have a red star factory but it makes planters of a different type.

We also cultivate corn and use herbicides but we have different varieties of corn compared with yours. We have our own regional varieties that fit our own climatic conditions. Our problem is to dry the corn because unlike here where each farmer has a grain dryer, we do not have them. So to make sure the

corn can be processed, we need to dry it. And this year, since the winter crops have perished, we have expanded the planting of corn and sunflower and we use industrial technology for those two crops. We also grow sugar beets and that is a major crop for us. So when we were in Monsanto and Pioneer we asked them about herbicides and GM seeds for sugar beats and they told us they are still working on that. So that project is still under development.

In out Rayon our farm is one of the best. We are not the worst and Dan McKinney of CEI was convinced that was really the case. At some point we started producing sugar beets almost without any manual labor by applying herbicides. But today it is more economically advantageous to use manual labor. It is cheaper to pay some women to weed the sugar beet in the fields than to use herbicides. Hopefully one day the situation will change and we will go back to herbicide technology.

What we are going to do is to introduce soy and we are going to expand our corn fields, we are going to continue our cooperation with Monsanto and Pioneer both in seeds and herbicides. That will produce an economic effect but it is hard to determine the exact amount. But it is pretty obvious that if you employ people on the farm, the greater the economic effect. At this point we have too many people.

Q: You are planning to do these things because you plan to be more profitable. Can you give us some idea of the percent increase in profits?
A: I would say that the economic effect from using the innovations we have seen here can reach 20 to 25%. Of course it would be wonderful to reinforce our new knowledge by using machines. They are available but are pretty expensive at this point.
CEI: We would like to sell you more machines, but your profitability is our main objective.

He has 4,800 hectares of land and 250 employees which is too many.

If he talks to the television he will reach about 10,000 people at one time. He will talk to about 1,000 people in his own town.

Again I would like to thank the Center for Economic Initiatives and its leaders for providing this opportunity for me to visit the U.S. I thought I was too old to come to America but it turned out differently and I thank you for this chance you provided me.

14.13. Anatoliy Synelnyk
Mykola Zasukha and I are from the same region and they have been cooperating for a long time. He has a seed base so he can provide the seeds and he is now convinced that soy is a good crop. It can even be more profitable than sunflower. If he gets a minimum of 15 to 20 centners per hectare it is still will be profitable (he should get 35). Besides, in his region he can sell to Kupiansk Milk and he has a ready made customer there.

He has been talking with one of the other farmers because when you cultivate soy it is very moist and the moisture content is very high. Wheat is pretty dry because of the specifics of the grain. So he got an idea from someone here to mix the wheat and soy together and he will use a centrifuge to resolve the moisture problem. He is already using this technique with barley and peas. Because there is a problem with grain dryers since they don't have grain dryers. They saw the grain dryers and it is possible to start making those dryers locally. He has a grain storage facility but unfortunately it is very flat and too big. What he does is to partition the whole area but in America he saw that these are not huge ones but they are partitioned and each partition contains its own grain.

There is a region in Ukraine there is a manufacturing factory where they make galvanized products. He is going to describe to that factory what they saw and try to convince them of the need for silos and he believes there is a possibility of getting them to manufacture mid-sized silos. Most of the farms in Ukraine are now breaking down into smaller sizes and they need these silos.

Q: How many hectares does he have?
A: 2,200 hectares.

He thinks this is too large. In America the optimum farm size is 500 to 800 hectares which is roughly 400 acres which is manageable. So he wants to divide this farm among his family. Then each portion will be a manageable size.

He can go ahead with corn without new technology. With soy he is not still sure because of the soil and climatic conditions. They haven't finalized the type of seed that is best. The only problem with corn is with drying it when it is harvested late.

He had seen Kinze seeders before but this was the first time he had seen them in action. He was very impressed by Kinze. He wants to buy one of them.

They are trying to develop a cooperative movement such as developing meat. They would give each individual a task not under one command but separately. Somebody is going to raise the piglets, someone is going to give them out, and someone else is going to do the meat processing industry in that area. Basically they are trying to reduce the transportation and other costs and at the time be more effective among themselves. There would be different agro-industries. They could be feed, they could be meat.

Q: The meat processing companies already have too little meat. Would not another company just make the situation worse?
A: One of the reasons why the meat industry is not profitable is that the cost of producing the meat is too high. If they do this subcontracting they will be able to reduce costs and make a profit. At this point in Ukraine, production costs of meat are very high.

He thinks he has to improvise technology. He is an engineer by education. At this time they are using a seeder for sugar beet. They have to group a little different way and then they will be able to convert that seeder to soy.

You have to improvise everything. In America they have narrower rows. They will increase the width of the rows to take into consideration the local climate. If the plant is a little bigger it will be easier to harvest. So that type of adjustment will be done. Of course the Roundup that is used in America is expensive, but they have an alternative. Another problem is that the soy harvest takes place at the end of September when the weather is very unstable. The fields get very soggy then. That is why people are a little scared about planting soy. They have to fine tune the methodology.

The whole idea at this point is that we have a lot of pastures, with perennial grasses etc., so we keep a lot of cows there. Here in the U.S. I noticed that there are a lot of cows with calves out there in the pasture. Then I thought that what we do now is to sell those cows that do not produce enough milk, with a low yield, to meat packers. If we put them out to the pastures, let them give birth to calves, let them raise those calves, and then we will essentially get free feed, because we have more pastures than we have cows, we get very cheap milk, and we get very cheap meat. So we benefit in every situation.

Previously there was an imbalance and they had a lot more cows. They are just trying to use the land more effectively. Sometimes it is more economic to get meat than milk.

We also have the situation where we cultivate too many crops. We have seven to eight crops. Now we find that in the U.S. they have only about 3 crops and they are doing fine. In any case, only about three are profitable and the rest are breakeven and take a lot of time and effort.

Q: Will the government let you reduce the number of crops?
A: Previously the government was telling us what crops to grow, but now they are not bothered about those crops. The place where the government intervenes is with sugar beet. That is a political decision.

A typical problem is that people will go with fads. If one year the price of buckwheat is low few people plant buckwheat and the price is high. If we specialize in buckwheat, we should continue with buckwheat every year. The market is unstable because of our behavior. If we specialize, things would be much better.

He liked these companies that provided land testing using the GPS system. Typically in Ukraine they are over using chemicals and that is very bad. In American that is being very evenly applied.

Q: He talked about a number of different things he is going to do as a result of the tour. What are the most profitable?
A: I expect that I will achieve at least 400,000 hryvna in profits next year taking into account whatever I learned in the U.S. That is two times my current profit of 200,000. If I don't get at least 400,000, my trip to the U.S. will have been wasted.

There should not be any problem in getting soy in the market. They are importing soy from distant places and transportation costs are high. If they can produce it locally they will al benefit. Already in Ukraine they have started selling soy based meat and other products.
End Anatoliy Synelnyk

14.14. Sergiy Popov
After looking at everything here on the study tour I realized that without a stable foundation in the country it is impossible to achieve a high level of agricultural production.

What was really amazing was that the products used by American farmers are surprisingly competitive. And what we saw when we talked to farmers was that they are essentially thinking of one thing – how to decrease their costs and increase their profitability and how to make their operations efficient. The farmers are confident and this confidence results from a number of different services including weather predictions, forecasts, agro-chemical companies, and all these company links are working very smoothly.

Professor Tweeten touched on this point. I asked him how farmers get their information and provide counseling and get their research based data and he said that our system is based on a tripod – farmers, agro-business and government (the public sector). The farmers think they are the main leg in the tripod. There I realized that all things worked together so there is a very important connection between research and farmers.

CEI: In the U.S. agriculture there is a strong research base.

Basically the farmers really do not need to think too hard about which technology to apply. The members on this study tour are constantly fighting over the right technology to use. Maybe this thing is better or maybe another is better. It is not really important to know if they will choose technology A or B. All these technologies are well defined and we need to choose the correct one. If you choose to make minimal investments, your will get, for example, 30 centners per hectare. The more you put in the more you get out. So then Professor Tweeter showed us the whole table – the correlation between the size of the farm (small, medium or large) and the efficiency and productivity.

For us, let us take no-till as an example. So there are people who have been working on this for 25 years. There have been Universities and government departments researching it and people have accumulated a lot of experience for this no-till. They probably have visited this country. So now they are trying to apply no-till where they live.

I understand that all people would love to install no-till but they do not have such an opportunity at this point. I know that 3 individuals in our oblast have converged to no-till. Of course we have this 5 crop rotation. So they apply no-till to 2 crops out of 5. What they did was to jury rig their own equipment and changed something or made some equipment because they are enthusiasts. And I know pretty much what should be used on eroded soils and what should be used on flat surfaces, etc. So they do not have such implements or equipment or machines that are available here. Much really depends on their own enthusiasm. On the other hand, those people as we say are "stewing in their own juice". They are pretty much willing to shear what they are doing. Because of my line of duties I travel a lot and have been watching what people have been doing for 2 or 3 years. And I know that they do not call each other and they do not contact each other to exchange information. Sometimes I think that is a pretty weird approach and there is no connecting link between research and farmers. The government is not encouraging it. In other words, research data is not communicated to the farmer – the final users. The farmers are enthusiasts and are great people and are doing great things and paving their own road.

Obviously we can understand that government cannot now support and fund research and science at the formal level. So what the government is funding now is not theoretical research but more practical applications. So, for example, I go to Kiev agricultural academy every month and the idea is that they only provide funding for practical, measurable programs. For example, if we want to have fundamental research in bio-technology, or genetics, or breeding, we have to find money ourselves. And if our institute makes money on seeds, then to fund my research, or any research project, I have to invest my own money. The agricultural institute is not financing fundamental projects.

Q: On this program you have seen a lot of thing. What will be the economic impact of this program on your operations?
A: I believe we can increase productivity of agriculture in the Kharkiv Oblast by 15 to 20%. One thing we are trying to do is to revise the sizing facilities for corn. We do have about 4 or 5 research farms essentially, and experimental farms with a total acreage of 1,000 hectares. We do understand that without quality seeds it is impossible to fight such oligarchs as Monsanto and Pioneer, etc. And the thing is that our farmers prefer to buy high quality seeds. Pioneer seeds yield more than 100 centners per hectare which is impressive. So being a representative for a center for scientific research in support of agriculture I am this connecting link now between research and farmers. So at this point what I do is that I provide the following service to the farmers. I calculate the economics of the operation. So they provide me their inputs or expenses. I put this information into my computer, I use special software, I can calculate their profits, their incomes, profits, and margins, etc. At this point I can tell you about Monsanto or Pioneer seeds. Their price in hryvna per kilogram is roughly equal to that in dollars per

kilogram. What I m saying is that the price of our domestic hybrids in hryvnas per kilogram equals the price of Monsanto/Pioneer seeds in dollars per kilogram. Since the exchange rate is 5:1, the price of seeds is also 5:1. It means that if our hybrid sells for 5 hryvna per kilogram, then Monsanto seeds will sell for $5 (25 hryvna) per kilogram.

Let me give you another example of corn. The idea behind buying expensive seed is that the corn will not need extra drying. Everybody understands that. The thing is that here we were asking all those questions and we understand that the potential yield for different crops is pretty much achieved in America. Here its potential becomes realistic. It is not the case in our country. For example, if the potential for sunflower is 35 centners per hectare, we normally get 14 to 20. If the potential for corn is 80 to 100 centners per hectare, on average we get 30. In other words, we could increase our productivity by 50% at least by applying with existing technology – by planting and harvesting at the appropriate times and by using all the equipment. Equipment is definitely a problem.

Another thing I was impressed with was the creation of those trans-genetic hi-breads. Of course there are some concerns in Ukraine at this point. On the other hand, their profitability is much higher.

As you know, there are two major challenges; major limiting factors as far as our soils go. It is a lack of moisture and very high weed pressure. In one square meter of tillable land in the top soil we find up to 3 million weed seeds. We understand that some of them are dormant for while. See, if you apply no-till, you have to use herbicides because what happens is that with the crop rotation, only at the end of seven year can you expect to get some profit. So no-till is impossible without herbicides. So many farmers quit because they don't have money to buy herbicides and they go back to conventional tilling.

So our research is really wearing seven league boots. They are really pushing forward because otherwise our system will not survive. The thing is that obviously our growers and farmers will be choosing the least expensive inputs to obtain maximum profits. So basically it is very, after visiting and talking with the farmers, and the universities, and companies such as John Deere and Monsanto, that I understand very well that we will pretty much stay in the saddle on the horse we really need to increase the pace of our development by us I mean the connecting link between research or academia and farmers.

I have really figured out a lot of things as far as service and corn go, but not wheat.

14.15. Viktor Kostenko

I was very impressed with the no-till technology, soy and corn. The only concern here is that at this pint we do not have any manufacturing for direct planters and direct drills. I know that representatives from the Malishev factory and the Kharkiv Tractor plant will be coming here in September. So I hope we will be able to sign and agreement with them on producing or assembling such machines in Kharkiv. While in addition to being a government official, I am also an agronomist supervising two farms where they grow soy using pretty much the same technology we saw here. They do use a direct drill but it is not a disk drill but rather an anchor drill.

At this pint we invest up to 1,300 hryvna per hectare of soy. By using that technology according to my calculations we can achieve up to 200 hryvna per hectare real economy. That is, they can save up to 200 hryvna per hectare by using no-till technology. What this means here is that tilling is obviously reduced.

CEI: In America, 80% of the soy is produced from trans-genetic seeds and 20% from regular seeds. Argentina is the largest percent producer at 99%.

CEI: Malishev is a real disappointment since they are not sending anyone on the machinery tour. Viktor will talk to his boss Mr. Bezugli and they will talk with Malishev.

I have worked for the government for one year and to come I would have needed to get permission. I did not want to get involved with this bureaucracy so I am using my vacation time to come on this tour. If I don't get something seriously accomplished, I might leave after one year.

Q: What else did you learn on the study tour that you can take back and use?
A: I also liked very much your grain storage facilities. It is really a shame that no one in Ukraine manufactures such silos. They are making them in Poland but they are a poor counterpart of American silos.

Every year during the harvesting season we have to get ready to prepare all those grain storage facilities essentially so what happens is that we need several people who are experts, for example, in technology in receiving grain and storing grain. We need an accountant who knows exactly how to record different batches of grain that arrive. We will need an operator who knows how to load those elevators, we need a warehouse specialist, we need someone to disinfest those barns or silos fro mice and those bugs, etc. Here it seems that the farmer doesn't really care about all those things. He delivers the grain, someone pushes a button, and the grain automatically gets elevated.

I also realized that if we really are going to cultivate or grow corn seriously, we need to convert to Pioneer hi-breads and varieties. The cob on the Pioneer is very thin so it means that the moisture will be accumulated in the stalk. That means that your corn cob will have roughly 16% moisture in the cob which is very good. We cannot get any moisture level below 23%.

Speaking about fertilizers and fertilizer systems, here I saw very visually that nobody uses dry fertilizers. On the contrary, in our country, very few farmers use liquid fertilizers.

Although we don't have a system for making those fertilizers, but there is a solution. We can make mixtures and can achieve all the compositions we desire. At this point what happens is that if you introduce dry fertilizer, on a wrong day, if you miss the perfect weather pattern, then it sits there all winter and in the spring it gets dissolved or gets washed out and although you have spent a lot of money you get zero results.

We saw winter wheat only on one farm, but on that one farm I learned about their approach to fertilizing. This farmer applies the 28% nitrogen, salt-peter essentially, dry fertilizer in the fall and then during the vegetation stage, he applies the liquid solution which is 46% urea. The advantage of liquid over dry is that the nitrogen lasts for a longer period of time.

After visiting the U.S. and as a government official, I am to set up and encourage associations. We do have a similar service which we call a Council of Agricultural Producers. Frankly speaking, it is a group of retired bureaucrats designed to provide them with some additional income. Their results are essentially zero.

We are trying to make forecasts for the harvest for that particular year. We try to recommend some quotas essentially what should be produced and how much, etc. Here everything is regulated by the market. Associations study markets and do market analysis and come up with their recommendations.

There is another entity that I liked here and that is the cooperatives we visited. They help the farmers sell their products to different customers. It thing in addition to associations and those cooperatives we should be providing legal council since during this reformation a number of mistakes have been made and practically, farmers are very vulnerable and if someone wants to get rid of a farmer it can be done very quickly. So protecting farmers legally should be a priority.

I have fill out all this notebook and I will spend a lot of time decoding and digesting it.

It is not just by chance that soon after my arrival in the Oblast Administration that we took the first place in agriculture in Ukraine.

15.0 RECOMMENDED SHORT TERM MEASURES FOR DEEPER TOUR IMPACT

Tour members benefited enormously from this visit, as can be seen in the exit interviews. Many members were interested in getting follow-up information from the various plants and companies visited, and in exploring technology and financial cooperation with U.S. organizations. They would like to have active CEI participation in one form or the other. A proposal seeking approval for funding a Productivity Center helping Ukrainians is necessary to take full advantage of the tour program.

15.1 CEI should update and publish a listing of the companies and persons who have participated in the study tour program and distribute it to all the study tour companies. They all have this experience in common and this will provide a way for them to network.

15.2 CEI should help develop an information system that enables Ukrainian farmer's access to international grain pricing and other marketing materials. This might encourage them to take advantage of a functioning futures market established in Ukraine similar to the Chicago Board of Trade.

16.0 LOGISTICS

16.1 Hotel Accommodations

During weekends and dates the study tour program was scheduled for Cincinnati area farms and companies, the tour group stayed at the Vernon Manor Hotel in Cincinnati. This hotel was selected because of the many overall benefits it provided. When the tour traveled outside Cincinnati, accommodations were made as appropriate in various motels. All participants were given double rooms with two beds without gender mixing. All rooms were blocked from making long distance phone calls, and charging food or drinks. Participants were able to make these purchases separately on their own account. Purchasing pre-paid phone cards generally made overseas phone calls.

16.2 Meals

a. While in Cincinnati, breakfast was provided at the Hotel Vernon Manor. On many mornings CEI representative (Dan McKinney) was available for interpretation or other assistance. To avoid menu translation and schedule delays, buffet meals were preferred over waitress services, when available.
b. In general, participants received $10 stipends for breakfast, $10 for lunch and $15 for dinner unless

meals were provided by CEI. In this way, participants had full control over their meals and CEI kept costs within budget. Weekly meal allowances were given to tour members.

c. CEI provided meals on four occasions: arrival dinner, lunch on the group's first orientation arrival day at the Vernon Manor Hotel; at a CEI picnic and the concluding dinner and certificate presentation.

16.3 Bus Transportation

The Vernon Manor shuttle bus transported the guests from and to the airport. This service was also available for transporting guests to downtown and other nearby shopping areas. Transportation to tour sites was done with a rented 45-passenger coach from J & J Tours. Our trusted and veteran driver Jay Frierson accompanied the group covering long distances.

16.4 Shopping/Sightseeing

All participants were anxious to shop for friends and family at home. On weekends, many spent their free time shopping. The hotel shuttle bus driver was very accommodating and took them to discount stores in the area. On some occasions (time permitting), the regular tour bus driver would stop for shopping or sight seeing, such as the Dayton Air Force Museum/Imax Theater. The group had a wonderful time visiting the Kings Island Theme Park near Cincinnati. Some CEI members helped by shuttling to local attractions like the Cincinnati Zoo and Covington Aquarium. In Chicago, the group visited Sears Tower, aquarium, museums, took a boat ride, and walked the waterfront along Lake Michigan, and visited parks and restaurants. While in St. Louis, the group took a boat ride on the "Tom Sawyer" along the Mississippi River and visited the Museum and the Arch. These visits in all cases were paid for by tour members, and had a deep impact on their perception of America.

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18.0 PARTICIPATING SPEAKERS FROM VARIOUS ORGANIZATIONS.

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APPENDICES

A. BRIEF DESCRIPTION OF GRAIN PRODUCING FARMS

1. Ukraina LTD
Address: Ukraine, Kharkiv oblast, Keguichevsky, Pavlovka vil.
Phone: 255-2-15-76
Fax: No
E-mail: No
Established: 2000
Ownership: Private
Number of employees: 184 (Male: 86, Female: 98)
Employed in grain operation: (60 Male: 45, Female: 15
Number of founders: N/A
Number of landowners: 467

The company is a former collective farm, which was privatized in 2000. It has 3270 hectares of arable land. Main crops are the following (hectares): winter wheat (940), rye (20), oats (80), barley (100), peas (150), sugar beats (300), fodder beets (20), sunflower (410), corn for grains (80), silage corn (300), millet (20), buckwheat (80), fodder crops (370), as well as fallow (410), and meadow (482).

Yields (centers/ton)

Winter wheat	41
Rye	25
Sugar beets	220
Fodder beets	500
Sunflower	17
Barley	25
Millet	11
Corn	55
Fodder corn	250
Peas	10
Buckwheat	13
Oats	20

Equipment:
Tractors-27.
Combines-5 and beets harvester-3.
Europacking machine-1

Company profits (Hr.) N/A

The company has a sunflower mill. The company also has200 heads of cow. Amount of milks per day per cow I 8.2 kg

Company goals:

- To increase the production of labor

- To use achievements of the best agro farms of highly developed countries to improve fertility of soil and profitability of production

Goals for the trip:

- To learn experience of farmer's work of best companies, how they use equipment, mineral fertilizers, herbicides, agricultural and technical conditions to grow agriculture.

2. Svitanok LTD Farm

Address: Ukraine, Kharkiv oblast, Volchansky district, Oktiabrskoye vil.
Phone: 76-200
Fax: 76-200
E-mail: No
Established: 2000
Ownership: Private
Number of employees: 120
Employed in grain operation: 100
Number of founders: N/A
Number of landowners: N/A

The company has 3400 ha (3000 ha of arable land). They grow grains, sunflower, sugar beets, cattle, and pigs. Annual amount of production is 1980 UAH

Yields (tons) n/a

Equipment:
Tractors-14.
Combines-3.

Company goals:
N/A

Goals for the trip:

- Technologies used in management and hybrids
- Sales and marketing relationships with buyers

3. Pervoye Maya LTD Farming Society

Address: Ukraine, Kharkiv oblast, Pervomaysky district, Grushino vil.
Phone: 2-31-47
Fax: 2-31-47
E-mail: No
Established: 2000
Ownership: Collective
Number of employees: 243 (Male: 129, Female: 114)
Employed in grain operation: 136
Number of founders: N/A
Number of landowners: N/A

The company is a former collective farm, which was privatized in 2000. It has 4363 hectares of arable land (total – 5160 ha). Main crops are the following (hectares): winter wheat (1500), winter rye (230), barley (600), sugar beats (250), sunflower (450), silage corn (500), millet (30), buckwheat (40), and fodder crops (600).

Yields (center/ha) average

Winter wheat	37-38
Rye	35
Sugar beets	210
Sunflower	20
Barley	32
Millet	33
Silage corn	250
Buckwheat	16
Fodder crops	280

Equipment:
Tractors-40.
Combines-10; beet harvesters–3, fodder crops harvesters-2.

The company has grain storages

Company goals:
- To increase production of grains
- To sell products with maximal profit

Goals for the trip:
- To get new ides how to increase production
- To learn new technologies of production and processing of agricultural products

4. Zolotaya Niva LTD

Address: Ukraine, Kharkiv oblast, Izumsky Dstr, Zabavnoye vil_
Phone: 8-0574-32-41-92
Fax: 71-293
E-mail: N/A
Established: 2000
Ownership: Private
Number of employees: 151 (Male: 109, Female: 42)

Employed in grain operation: 88
Number of founders: 4
Number of landowners: N/A

Total amount of land: 5307 ha - 4012 ha of arable land, and 1295 of meadows

The Zolotaya Niva LTD was established in 2000 after the reformation of a collective farm. Since 2002, it is a member of Association of Reproductive Seeds of Kharkiv Oblast.

Production: winter wheat (1215 ha), barley (forage and for malt) (600 ha planned), corn, sunflower (600 ha), sugar beets, cereals

Yields: average
Winter crop – up to 40 centers /ha
Grains – 18 – 32 centers/ha
This year grain was exported to other countries

Equipment:
Tractors – 32 (a few light tractors)

Also have cattle and beehives

Company sales (Thou Hr.)

2000	2001	2002 (9 months)	2003 (est.)
1990.0	3110.2	3908.7	4690.4

Company goals:
- To increase amount of production, quality, and productivity of grains due to intensive methods of growing

Goals for the trip:
- To expand knowledge of new technologies
- To study state-of-the-art technologies
- To get new business contacts for further cooperation
- To learn practice of farms, which grow grains
- To get information about seeds, fertilizers, herbicides and pesticides
- To see economic figures of various enterprises on production, storage and sales of agricultural products
- Quality standards

5. Novy Shliah Agrifirm LTD

Address: Ukraine, Kharkiv oblast, Borovskoy district, Cherneschina vil.
Phone: 6-31-41
Fax: No
E-mail: No
Established: 1952
Ownership: Private
Number of employees: 297 (Male: 151, Female: 146)

Employed in grain operation: N/A
Number of founders: 9
Number of landowners: N/A

The company is a former collective farm.

Yields (tons)

	2000	2001	2002
Grain	1691	3782	3478
Sunflower	792	620	8845
Sugar beets	10081	10739	735

Equipment: N/A

Company profits (Thou Hr.)

	2000	2001	2002	2003 (planned)
Grain crops	568	885	814	800
Sunflower	467	613	711	714
Sugar beets	1547	1800	1600	1900
Hybrids:				
Sunflower	200	140	390	450
Corn	280	500	360	540

The company has a grain dryer, roofed threshing-floor, grain cleaning machines.

Company goals:

- To increase the amount of production
- To increase the profitability and decrease of primary costs.

Goals for the trip:

- To learn more about technologies of growing and selling of agricultural products: grain, soy, hybrid seeds of corn and sunflower that can be implemented at the enterprise.

6. Zhelezniak Farm

Address: Ukraine, Kharkiv oblast, Bliznukovsky dstr, Bliznuky vil.
Phone: 5-17-95, 7-12-69,
Fax: 5-17-95
E-mail: No
Established: 1993
Ownership: Private
Number of employees: 10

Employed in grain operation: 10
Number of founders: N/A
Number of landowners: N/A

The company has 250 hectares of arable land. Main crops are the following (hectares) planned for 2003: winter wheat (60), barley (40), sugar beats (15), sunflower (40), corn (30), soy (25), and fallow (40).

Yields (tons/hectare) – planned in 2003

	2003
Winter wheat	4.0
Barley	3.5
Corn	5.0
Soy	2.0
Sunflower	2.0
Sugar beets	30.0
Fallow	-

Equipment:
Tractors - 5.
Trucks - 2.
Combines - 1.
Cultivators - 4.

Company profits (Hr.) N/A

Company goals:
- To provide high level of life for all employees and members of the family.

Goals for the trip:
- To learn main technologies of production of grains, application of new sorts and hybrids of grains, received with the help of genetic engineering;
- To learn organization of farms, their work and lifestyle;
- To learn relationship between the State and farmers

7. Rossolovoy M.N. Farm

Address Ukraine, Kharkiv oblast, Kupiansky district, Lesnaya Stenka vil.
Phone: 32-7-41
Fax: No
E-mail: No
Established: 1997
Ownership: Private

Number of employees: 92 (Male: 54, Female: 58)
Employed in grain operation: 27
Number of founders: N/A
Number of landowners: N/A

The company is a former collective farm, which was privatized in 1997. It has 2000 hectares of arable land (total 2300 ha). Main crops are the following (hectares): grains (1200), fodder corn (150), sugar beets (100) and sunflower (350).

Yields (centers/ton)

	2000	2001	2002	2003 (est.)
Grains	24	26.8	36.8	38

Equipment:
Tractors - 15.
Combines - 8.
Cultivators - 14.

Company profits (Thou Hr.) N/A

The company has a roofed threshing floor (2000 tons) and a storage facility (500 tons).

Company goals:
- To introduce an expanded production,
- To reduce primary costs

Goals for the trip:
- Production and processing of agricultural products
- To see various forms of agricultural production, particularities of economic work of agricultural enterprises, particularities of taxation law

8. Private farm Umrikhina Y.N

Address: Komsomolsk vil., Pervomaysk district, Kharkiv oblast, Ukraine
Phone: 8-248-45-3-84, 45-3-04
Fax:
E-mail:
Established: 1992
Ownership: private

Number of employees: 4

Private farm Umrikhina was established in 1992. At the moment of its foundation land area totaled 100 ha, including 50 ha of arable land. At that time the farm was mainly involved in growing winter wheat, barley, oats, and buck wheat. Later it started to grow sugar beets. At present soy production was added to its operation.

This year soy yield amounted 1800 kg/ha. It is planned to plant 35 ha with soy.

Since the year of the farm's foundation the total land area increased due to the lease of the reserve land and lease of land from the landowners. The number of permanent workers, employed by the farm has increased from 1 to 4. Storage facility has been build, construction of the dwelling house and repair shop is almost finished.

Farm's revenues have been increased significantly due to increase of land area, more efficient usage of agricultural machinery, and more efficient usage of means of plant protection and mineral fertilizers.

Currently the following crops are grown by the farm with the following breakdown:
Winter wheat – 35-40%
Barley - 15-20%
Oats – 10-15%
Sunflower – 10-15%
Soya (plan for 2003) –5%

Sales volumes (in thousand UAH):
1999 – 37.0
2000 – 51.0
2001 – 160.0
2002 – 240.0
Plan for 2003 – 280.0

Farm's produce is sold to wholesalers. About 70% of the farm's products are grown by orders.

Farm's goals:
- To increase production volumes;
- To organize processing of grown produce;
- To expand the number of services rendered to other agricultural producers

Goals for the trip:
- To get acquainted with American farms;
- To get acquainted with life and traditions of American people;
- To establish business contacts with American agricultural producers.

9. Pavlovo SABS Farm

Address: Ukraine, Kharkiv oblast, Bliznukovsky district, Samoilovka vil.
Phone: 8-05754-76-2-64
Fax: No
E-mail: No
Established: 1992
Ownership: Private

Number of employees: 3
Employed in grain operation: 2
Number of founders: N/A
Number of landowners: N/A

The company has 102 ha of arable land. It grows winter wheat, barley, sunflower and sugar beets, as well as fodder beets (5 ha) and fodder corn (10 ha).

Yields – N/A

Equipment:
Tractors - 4.

Trucks - 2.
Combines - 1 and 1 fodder corn harvester

Company profits (Thou Hr.) N/A

The farm has 10 heads of cow and milk about 19 – 26 liters per day per cow.

Company goals:

- To create a strong farm that would work in various areas.

Goals for the trip:

- To receive theoretical knowledge on milk production and livestock (growing, feeding, prophylactics of diseases)
- To learn more about the model of economic development of agriculture in the USA, i.e. evolution of small family agricultural business, and milk production at farms, processing of agricultural products at *small* farms

10. Institute of Plants named after Yuriev

Address: Ukraine, Kharkiv
Phone: 92-40-50
Fax: 779-77-63
E-mail: ppi@kharkov.ukrtel.net
Established: 1909
Ownership: State-owned
Number of employees: 2000 (Male 1190, Female: 810)

Employed in grain operation: 1800
Number of founders: N/A
Number of landowners: N/A

The Institute of Plants is a multi-profile scientific establishment of the Ukrainian Academy of Agrarian Sciences. It is one of the oldest institutions in Ukraine. They work on selection and plats sciences of agricultural cultures, organization of research on radiation selection process, development of methods of selection process and methods of evaluation and sorting of agricultural properties. It is a subordinator on issues of selection of spring wheat, millet, winter rye, peas, etc in Ukraine, which is the Center of Scientific provision of Agro production in Kharkiv Oblast also.

The Institute has 22 000 hectares of arable land (29 700 ha – total). The main crops are the following (ha): winter wheat (5 500); winter rye (300), barley (1 900), oats (120), spring wheat (400), peas (450), millet (150), buckwheat (340) and fodder crops (400)

Yields (centers/ha)

	2001	2002
Winter wheat	43.3	43.8
Winter rye	41.7	35.6
Barley	30.3	35.2
Oats	42.2	35.3

Spring wheat	20.3	25.0
Millet	21.1	22.6
Peas	22.4	21.0
Sunflower	13.2	16.2

Equipment: N/A
Tractors – 278
Trucks – 240
Combines – 28
Beets harvester – 14
Cultivators – 300

Company profits (Thou Hr.) N/A

The company has grain storage capability (2000 ton).

Company goals:
- To produce seeds of high quality (grains, beans, oil and fodder plants)

Goals for the trip:
- To improve agricultural production in Kharkiv Oblast, especially in production of fodder crops
- To see state-of-the-art technologies of grains and fodder crops growing, system of plants science, processing and receiving combined feed of good quality, as well as a range of equipment.

11. Commodity Exchange

Address: Ukraine, Kharkiv oblast, Borovskoy district, Cherneschina vil.
Phone: 715-53-85
Fax: 712-21-32
E-mail: info@xtb.com.ua
Established: 1991
Ownership: Exchange

Number of employees: 45 (Male: 21, Female: 24)
Employed in grain operation: N/A
Number of founders: 8
Number of landowners: N/A

Trade in agricultural products and material & technical resources for needs of agricultural complex.

Amount of sales (Tons)

2000	2001	2002	2003 (planned)
160	460	380	500

Advantages of the Enterprise:
Close contact with enterprises – non-residents that import Ukrainian agricultural products to Belarus,

Russia, Baltic countries

Company goals:

- To introduce futures contracts

Goals for the trip:

- To see the work of leading futures exchange (Chicago Trade Board, New Trade Board, etc)

12. OKA Farmers Enterprise

Address: Ukraine, Kharkiv oblast, Dvurechansky distr., Dvurechnaya vil
Phone: 8-250-7-19-89
Fax: N/A
E-mail: N/A
Established: 1993
Ownership: Private

Number of employees: 5
Employed in grain operation: 3
Number of founders: N/A
Number of landowners: N/A
Total amount of land: 500 ha: 470 ha of arable land

The enterprise was established in 1993, but re-registered in 2002

Yields (tons):
Average production in 2000 – 2002:
Winter crop – 20 – 25 centers /ha
Barley – 15 – 20 centers / ha
Soya – 15 centers/ha
Sugar beets – 150 – 350 centers/ha

In 2003, it is planned to grow (ha):
Wheat – 170
Barley – 50
Soya – 40
Sugar beets – 30
Sunflower – 50
Fodder crops – 30
Fallow - 100

Equipment:
Tractors-6.
Trucks-2.
Combines-2 for grain; 1 for corn and 1 for beets
Cultivators-6
Disk plough–1
Planters–2 for grain; 1 for beets; 2 for corn;

A storage (700 m^2), one more is under construction (400 m^2). Part of products is stored at a leased storage

Company profits (Hr.) N/A

Company goals:

- To achieve maximal profit at the expense of costs optimization
- Low till technologies
- Growth of ecologically friendly products, using residue of plants.

Goals for the trip:

- To see farms, size and weather of which are close to those in Ukraine; their specialization, and technologies to grow grains, beans and other cultures
- To learn activity of non-profit corporations that serve farms; associations

As a deputy head of Oblast association of farmers

- To learn the activity of NGO of organizations of farmers, their relationship with state agencies of the USA

13. Promin Farm

Address: Ukraine, Kharkiv oblast, Bogoduhovsky district, Gubarevka vil
Phone: 8-05758-2-23-90
Fax: 8-05785-2-23-90
E-mail: No
Established: 2000
Ownership: Private

Number of employees: 400 (Male: 260, Female: 140)
Employed in grain operation: 400 (Male: 260, Female: 140)
Number of founders: N/A
Number of landowners: N/A
The company is a former collective farm, which was privatized in 2000. It has 3680 hectares of arable land (total territory - 4250 ha).

Cultures, territory and yields (tons)

Culture	**Territory, ha**	**Yields in 2002, tons**
Winter crop	1100	6000
Barley	350	1200
Peas	100	400
Corn for grain	100	400
Sugar beets	400	15500
Sunflower	400	1000
Fodder crops	250	7500
Corn for forage	400	14000
Soy	100	150

Equipment:

Tractors-60.
Combines-8 – for grain; 4 – for beets; 4 – for fodder crops
Planters - 28
Cultivators - 32.

Company profits (Hr.) N/A

The company has grain storages (3 000 tons). The company has 1200 heads of cattle: cows – 300 heads; young cows – 500 heads, other cattle 400 heads. Cows give 2700 liters a day.

Company goals:

- To reduce expenditures on production, to increase amount of production

Goals for the trip:

- To learn experience of work of other companies to implement at the company
- To learn more about variety of sorts of agricultural products; and economic indices of the activity of enterprises
- To see new technologies of production, and equipment used at work

B. PRESS AND MEDIA COVERAGE

A12 Forest Hills Journal Wednesday, June 4, 2003

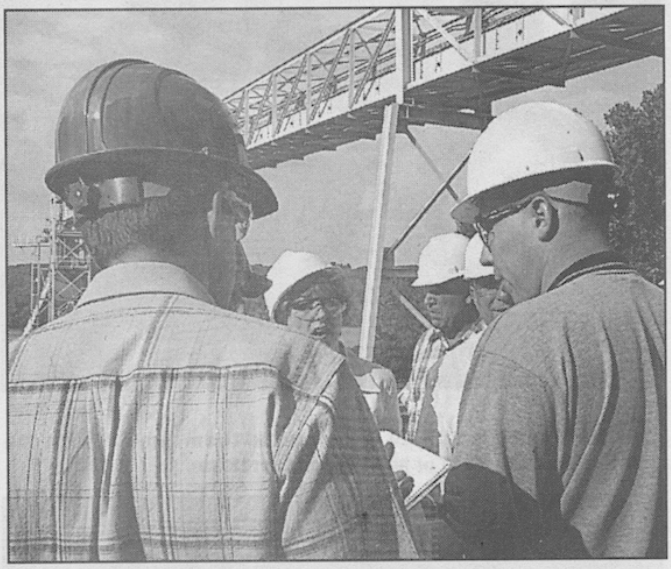
Grain company helps Ukrainians

Cargill helps visitors seek good prices

Ukraine used to be the breadbasket of the Soviet Union, with its dark and fertile soil. Today the soil is still rich, and it is producing boom harvests for what is now the independent country of Ukraine.

Sounds like good times for Ukrainian grain farmers, right? Wrong.

Their bumper crops are ready for harvest all at the same time. The farmers have to sell the grain at harvest, as they don't have storage. When grain supplies get so high, prices dive. Farmers who should be enjoying the prosperity of a successful growing season instead find themselves looking for loans in order to stay in business. The next season, they can't pay off their loans because they can't get high enough prices on their yield.



Adam Schmidt, right front, showed the Ukrainians how local corn and soybeans arrive at Cargill AgHorizons, how the grain elevator keeps them in peak condition, and how the grain gets loaded into barges for transport down the Ohio River.

That's why a visit May 28 to Anderson's Cargill AgHorizons grain elevator on Kellogg Avenue was so important to 15 Ukrainian grain farmers on a study tour run by Cincinnati's Center for Economic Initiatives.

The Ukrainians learned about how American farmers store their own grain until they decide to sell, when the price is right. The central idea was that the Ukrainian farmers need to gain some control of their own profitability.

"Grain prices have fallen by half," says Dr. Belal Siddique, who organized the tour. "They have to find ways to get good return if they put in good effort and get good results."

Cargill AgHorizons staff explained how American grain prices work and how the government helps farmers stay in business.

The visit to Cargill AgHorizons was the first stop on the Ukrainians' three-week American study tour, focused on pricing and market development. By the end of the tour, they will have met with agriculture experts in six states. Their tour covers farms, trade associations, grain production, agro-machinery, grain terminals, elevators and storage, transportation, export terminals, commodities trading, research, agro-chemicals, lab analysis, seed development, agro-education and pest control.

The group is from the agricultural region around Kharkiv, a city of 1.5 million and Cincinnati's sister city.

Their tour is funded by the U.S. Agency for International Development (USAID).

– Submitted by Jan Sherbin

Forest Hills Journal

Anderson's Cargill Grain Elevator Helps Ukrainians Seek Good Prices for their Crops

Ukraine was the breadbasket of the Soviet Union. The soil is dark and fertile. The past couple of summers, grain production in the now-independent country has boomed.

Sounds like good times for Ukrainian grain farmers, right? Wrong. Their bumper crops are ready for harvest all at the same time. The farmers have to sell the grain at harvest, as they don't have storage. When grain supplies get so high, prices dive. Farmers who should be enjoying the prosperity of a successful growing season instead find themselves looking for loans in order to stay in business. The next season, they can't pay off their loans because they can't get high enough prices on their yield.

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Photo caption: Adam Schmidt showed the Ukrainians how local corn and soybeans arrive at Cargill AgHorizons, how the grain elevator keeps them in peak condition, and how the grain gets loaded into barges for transport down the Ohio River.

Ukrainians See No-Till at Miller Farm

Low-till farming is only beginning to catch on in Ukraine, formerly part of the Soviet Union. No-till is mostly a vision. In fact, Ukraine's government officials tend to oppose no-till because of its need for herbicides.

But 15 Ukrainian agriculturists visiting Miller Farm in Portland on May 29 took a very close look at no-till anyway. They are seeking whatever methods they can implement to make their operations more profitable.

As Ukraine's farming moves to the free-market system, farmers often cannot meet their costs by selling their grain. In fact, Ukraine has had excellent harvests the past couple of seasons, but the bounty only drives down prices.

Under communism, farms did not value efficiency or profits. A main objective was to employ large numbers of people. Now Ukraine's farms must find ways to work more efficiently. Farm managers must rework the finances of their operations. Government agencies must find new ways to assist farmers. Farms must purchase more modern equipment.

Miller Farm was one stop in a six-state study tour arranged for the Ukrainians by Cincinnati's Center for Economic Initiatives under a grant from the U.S. Agency for International Development. Between May 26 and June 15, U.S. grain experts showed the group how the U.S. grain industry works, with a focus on profitability and market development.

The group visited grain-related operations in Ohio, Kentucky, Illinois, Iowa and Missouri in addition to Indiana. Their comprehensive tour covered farms, trade associations, grain production, agro-machinery, grain terminals, elevators and storage, transportation, export terminals, commodities trading, research, agro-chemicals, lab analysis, seed development, agro-education and pest control.

"Ukrainian farmers have been achieving bumper crops, but with no futures market in their country, they're not getting good prices. Grain prices have fallen by half," says Dr. Belal Siddique, who has organized the tour. "The farmers end up taking loans. If they can't repay those loans because of low prices, they can't stay in business. They have to find ways to get good return if they put in good effort and get good results."

The Center for Economic Initiatives has been using the study tour method to give businesspeople from the former Soviet Union a first-hand look at modern technologies, management and productivity methods and free-market competition. U.S. businesses volunteer to show their sites and explain their operations. This study tour is the Center's 14th, with tours in aquaculture (production of edible fish), livestock and farm equipment manufacturing scheduled for later in 2003.

The Commercial Review (Jay County's Daily Newspaper). (260) 726-8141. Portland, IN.

Cr_newsearthlink.net

From Ukraine to U.S. (5/30/03)

Ag tour visits Miller farm in Jay County

By Michael Kitchel

The Commercial Review

Miller Farm hosted 15 Ukrainian agriculturists on Thursday morning as part of a Center for Economic Initiatives tour of the United States to study the grain industry and market development. Pictured here (from left) are Ukrainian farmer Kontsevich Oleksandr, Portland farmer Greg Miller and CEI's Dr. Belal Siddique, who organized the trip. (The Commercial Review/Michael Kitchel)

With video cameras rolling and plenty of film for snapping photographs, 15 Ukrainian agriculturists took an extensive tour of Portland's Miller Farm Thursday morning. Some of the visitors were overjoyed while watching some of Greg Miller's farm equipment at work, and many posed for photos with some of the larger tractors on the farm. (The Commercial Review/Michael Kitchel)

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For the first time in his life, Portland farmer Greg Miller wishes he could speak Russian. That's because he's the centerpiece of an endless line of questions from 15 Ukrainian agriculturists who have come to visit his farm as part of a six-state tour of the United States to study the grain industry and market development. The visitors are clearly awed by Miller Farm — located at 1557 East 300 North in Jay County — and every one of them has dozens of questions to ask. The problem is the interaction between Miller and each of the Ukrainians has to be filtered through a single interpreter, which complicates things. Still, even as the questions are coming quicker than he can give answers,

Miller never breaks from his smile. He tries to look each of them in the eye, even though he can't understand a single word they are saying. "I'm overwhelmed," Miller said, after allowing Bryant Co-op agronomist Dave Taylor to handle some of the questions. "I just can't believe it. They asked everything from where my kids went to school, what I do in my free time, to how big the tractors are and how we work our tillage operation."

The visit is part of the Center for Economic Initiatives tour — organized by Dr. Belal Siddique — which helps business people from the former Soviet Union get a first-hand look at how American farmers run their businesses. The Ukraine has been shifting to a market economy since it declared independence from the Soviet Union 12 years ago.

"The overall majority of them are farmers, big-time farmers," Siddique said. "Some of them have 10,000 acres of land, and they do a lot of multi-product farming. I'm trying to tell them it's better to specialize, because specialization means they have to use less money and invest less money. Because with several different crops, they use a lot of energy and a lot of money."

Many of the visitors share photos of their farms back home in the region of Kharkiv — Cincinnati's sister city with a population of 1.5 million — and the soil is much richer than what is found on Indiana farmland. But the quality of land is not the problem in Ukraine, it's the farmers' knowledge of how to transport, store and market their crops. And while they do have farming equipment, it's no where near the "sophisticated" equipment found on American farms.

"Obviously their equipment is more expensive for the same thing (we have in America)," Miller said. "And if I understand it right, they're going from a government-controlled system to a free enterprise. So it's a big learning curve for them. It's just amazing."

"After this visit, there is a new energy to their life," Siddique said. "If Americans can make it work, why can't they?"

Yuri Umrikhin agrees. "Several things impressed me most during this trip," Umrikhin said through CEI interpreter Alexander Etlin. "I was impressed by the crop management, the equipment that is used here and also the crops that have been genetically modified." It's hard to believe that nobody ran out of film, as each visitor had a least one camera flashing non-stop. Some of the farmers posed for photos with Miller's larger John Deere tractors, and many had video cameras rolling for the majority of the day.

One Ukrainian man in particular was so excited by Miller Farm he couldn't help but raise his voice until he was jumping around and shouting questions for Etlin to translate.

"Some of them are just heated, because they want to know. They really want to learn," Miller said, pointing to the man who couldn't stop shouting. "I mean, look at him. He's ready to learn something."

Siddique said he selected the 15 visitors out of the 46 candidates he interviewed because they were "leaders" in the Ukrainian farming community. And once they return to their homes, their job is not complete.

"They are told before they come, that when they return (to the Ukraine) they have a social obligation to teach others what they have learned," Siddique explained. "When they go back they must write an article in the newspaper, they will take part in a TV interview and participate in different discussions in

the city and elsewhere."

Alumni of previous CEI tours have shown increases in their production and efficiency, which is the hope of Thursday's visitors.

"I believe that this program gives us a chance to see ourselves several years down the road," Umrikhin said. "So this program helps us see into our future."

Ukrainian farmers visit Union site

By Bryan Ashcraft
Press Staff
Kynews@communitypress.com

The speech required an interpreter but the language was common at Schwenke Brother's farm in Union Monday.

A group of the Ukraine visited the farm to learn about production and marketing of corps.

Armed with notepads and cameras, the group, consisting of 15 farmers as well government officials and organizers, discussed agriculture techniques with the Schwenkes and had some questions.

"So many questions," said Bob Schwenke owner of the farm.

This is the 14th group of farmers to the United States since 1998 in an effort to help people from the former Soviet Union adapt to a free market society. The trip is funded by the United States Agency for International Development and organized by the nonprofit Center for Economic Initiatives in Cincinnati.

"Food is politics, if the people are hungry the government will collapse," said Belal Siddique of the CEI.

Bryan Ashcraft/Staff

Sergiy Vasenin and Belal Siddique at Schwenke Brother's farm.

Initially the farmers were mainly concerned about production. Now that they have a handle on production they are here to learn other things such as transportation, storage, conditioning and marketing.

"Food is politics, if the people are hungry the government will collapse."
Belal Siddique

Sergiy Vasenin, a 26-year-old farmer from Bogodhakhov, Ukraine, was impressed with the modern techniques used by American farmers. Techniques such as no tilling and crop specialization in which American farmers concentrate on crops that will yield the greatest profit. In Ukraine, according to Vasenin, the farmers will grow anything they can, not worrying about the market.

One reason for this according to Siddique is that there is no futures market in Ukraine. That's one thing the Ukrainians will be learning about during their U.S. tour by visiting Chicago Board of Trade.

Vasenin is also impressed with technology, such as satellites that aid farmers in soil preparation and the use of the Internet to find the best price.

He also likes the United States' legal structure in regards to farming compared to Ukraine.

"Your legal structure is simple," he said through an interpreter, "not complicated like in Ukraine."

The tour is funded completely by the USAID and the Ukrainian farmers had to pass a set of strict requirements in order to participate. Forty-six farmers applied of which 16 were chosen. All the farmers participating have farms of at least 10,000 acres and most have college degrees in agriculture. The farmers must also agree to share the information when they return to Ukraine.

According to Siddique, it is mandatory the farmers spread the knowledge they have accumulated here to other farmers throughout the country by granting interviews to the media.

The group will be in the United States for 21 days and are visiting farms, manufacturers, universities and government agencies as well as many other types of facilities in Kentucky, Ohio, Illinois, Indiana, Iowa and Missouri.

By Bryan Ashcraft

Intern

Kynews@communitypress.com

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