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**Farmer-To-Farmer Program  
Special Initiative for the New Independent States  
of the Former Soviet Union**

Agreement Number: FAO-0705-A-00-2091-00  
Project Number 938-0705

Quarterly Report July 1 - September 30, 1995  
Year Three Annual Report

October 30, 1995

## **TABLE OF CONTENTS**

### **QUARTERLY REPORT**

Volunteer Assignments	1
FFA Subagreement	6
Outcomes	6
Impact	9
Program Management	10
Attachments	
A. Volunteer Tracking Information	
B. FFA Quarterly Report	
C. Zuber Final Report	
D. Quarterly Financial Summary	

### **ANNUAL REPORT**

Volunteer Assignments	11
FFA Subagreement	13
Program Management	14
Obstacles/Major Changes	14
Attachments	
E. Yearly Financial Summary	

**QUARTERLY REPORT**  
**Fourth Quarter/Year Three**  
**July-September, 1995**

**VOLUNTEER ASSIGNMENTS**

During the fourth quarter of the Farmer To Farmer program's third year, Land O'Lakes and FFA fielded twenty-two volunteers from twelve states. Volunteer assignments were located in ten Russian Federation oblasts and two Ukraine regions. Volunteer tracking information, including technical assistance objective categorization, is included in Attachment A. A summary of Land O'Lakes technical assistance interventions follows. FFA program information is included in Attachment B.

BENEFICIARY ORGANIZATION(S)	ASSIGNMENT DATES	ASSIGNMENT LOCATION	REPEAT BENEFICIARY?	VOLUNTEER SPECIALIST(S)
Pricordonnik Ag Company	June 15-July 2, 1995	Zakarpats'ka Region, Ukraine	Yes	Douglas Fischer

Fischer, a former FFA volunteer to the Yahkromsky State Farm near Moscow, enthusiastically covered the entire scope of work for his assignment in Ukraine. In addition to evaluating the present conditions at the Pricordonnik Ag Company meat processing facility, he also worked with company management to evaluate their current financial outlook and provide assistance with increasing profits.

A veteran sausage-maker, Fischer also provided technical assistance in the development of new sausage recipes for the plant. To facilitate this process he brought many sausage-making materials with him as well as a box of special Louisiana sausage seasoning.

BENEFICIARY ORGANIZATION(S)	ASSIGNMENT DATES	ASSIGNMENT LOCATION	REPEAT BENEFICIARY?	VOLUNTEER SPECIALIST(S)
Peleshkei Farm	June 23-July 8, 1995	Zakarpats'ka Region, Ukraine	Yes	Mac Graham Marcy Graham

The Graham's assignment was a follow-up to the Peleshkei's visit to the US through the ACDI Reverse Farmer to Farmer program. During a three-week training program at Land O'Lakes/Arden Hills, Peleshkei visited Graham's fish farm in Wisconsin. Being engaged in aquaculture himself, he asked the Wisconsin couple to provide technical assistance with his fish operation in Ukraine.

During their assignment, Mac Graham focused on fish breeding and raising technologies while Marcy explored marketing possibilities for the beneficiary organization. Both specialists worked hard to provide a wealth of information for Peleshkei on these topics. In particular, the Graham's accomplished the following:

- an evaluation of the fish operation facilities at the farm;
- an evaluation and information regarding the best fish species to be bred at the farm considering the climate;
- analyzed several potential outlets in nearby towns representing potential markets for the farm's produce;
- provided advice on other areas in which Peleshkei can be profitable while he is developing the market and his breeding stock.

BENEFICIARY ORGANIZATION(S)	ASSIGNMENT DATES	ASSIGNMENT LOCATION	REPEAT BENEFICIARY?	VOLUNTEER SPECIALIST(S)
Zavolshsk District Private Farm Association	June 29-July 15, 1995	Ivanovo Region, Russia	No	Lee McGuire

The purpose of this assignment was to help the Zavolshsk District Private Farm Association find a way to store grain produced in the area. The farmers from this district currently have to bring their grain to another district for storage. This presents some serious transportation problems, including bad roads and a river between the districts which must be crossed via a costly ferry.

McGuire's scope of work was to assist in establishing grain storage bins at the Association site. After evaluation the site, he was able to recommend a complete equipment set that he had located in the US prior to his departure. McGuire also assisted the Association with preparing a business plan and documents for obtaining a loan through the Russian Farmer Foundation.

BENEFICIARY ORGANIZATION(S)	ASSIGNMENT DATES	ASSIGNMENT LOCATION	REPEAT BENEFICIARY?	VOLUNTEER SPECIALIST(S)
Kaliningrad AKKOR	July 20-August 5, 1995	Kaliningrad, Russia	Yes	Bob Christenson

Christenson worked with the Kaliningrad AKKOR on the initial stages of developing a milk processing complex/plant. Before his assignment ended early due to health problems, he was able to assess two potential sites and disseminate information and a list of equipment he had obtained regarding the equipment needed for the plant. He also worked with an individual who will be the plant manager once the plant is established. Finally, Christenson assisted in completing a loan application for equipment capital.

BENEFICIARY ORGANIZATION(S)	ASSIGNMENT DATES	ASSIGNMENT LOCATION	REPEAT BENEFICIARY?	VOLUNTEER SPECIALIST(S)
Trembita Company	July 20-August 5, 1995	Zakarpats'ka Region, Ukraine	Yes	Lavern Palmberg

Palmberg's assignment was a follow-up to the beneficiary's training in the US through the ACDI Reverse Farmer To Farmer program. Ivan Kerita, head of the Trembita Company, came to Land O'Lakes through that program in April, 1995, for an agribusiness management course. Palmberg was the Land O'Lakes trainer for this course. Kerita expressed a desire to host Palmberg at Trembita Company so they could work together on several issues raised during the training. In general, Kerita was interested in having Palmberg look at his operation and point out things that needed to be changed. Palmberg performed the following activities in response to this request:

- reviewed current situation at the company and provided suggestions on employee development and training;
- analyzed each separate business within the company and provided recommendations for improvements;
- suggested several ways of increasing profits immediately, including renting an empty lot to farmers for use as a market and opening a cafe at the market site;
- evaluated the buildings and facilities for the various enterprises within the company and provided feedback on the possibilities for success and failure of each;

Palmberg also visited other former training participants in the area and evaluated their projects. While doing this, he was able to visit a vocational school in Vinogradovo and develop a training program to be implemented there later. Dale Dunivan, a Land O'Lakes Farmer To Farmer volunteer, will be returning to the school during the next quarter to lecture on the topics suggested by Palmberg.

BENEFICIARY ORGANIZATION(S)	ASSIGNMENT DATES	ASSIGNMENT LOCATION	REPEAT BENEFICIARY?	VOLUNTEER SPECIALIST(S)
Russian Farmer Foundation	August 19-26, 1995	Moscow, Russia	Yes	Chauncey Zuber

The Russian Farmer Foundation is an organization which provides equipment purchase loans to farmers. Zuber's assignment was to work with Mr. Tarasov, a Foundation board member, on the procedures for making sure the loans go the right people, purchasing ag equipment and conducting feasibility studies in the field. Specifically, Zuber accomplished the following:

- improved equipment specification and purchasing procedures;
- attended a meeting of the Foundation Board of Trustees;
- coordinated with another volunteer doing an assignment in meat processing;

- visited Esfir farm, a Foundation recipient, and, after observing meat processing plant operation, provided recommendations on how to increase their outputs;
- attended the Russian Farmer World Fair in St. Petersburg to research equipment options;
- implemented a filing and information system for the Foundation office; and
- assisted in creating a staffing policy and job description for each person employed by the Foundation.

Zuber's final report is particularly noteworthy and is therefore included as Exhibit C.

BENEFICIARY ORGANIZATION(S)	ASSIGNMENT DATES	ASSIGNMENT LOCATION	REPEAT BENEFICIARY?	VOLUNTEER SPECIALIST(S)
Yantar Farm	August 17-September 2, 1995	Kaliningrad Region, Russia	Yes	Leslie Burch

Burch provided technical assistance mainly to Yantar Farm. His assignment included:

- looking over the farm's operations and evaluating the current situation;
- assisting them in filling out an application for a loan from The Russian Farmer Foundation;
- assisting in preparing business plans for Yantar farm, the Andrea Dojedomov farm and the local agricultural vocational school;
- locating equipment sources for Yantar Farm and providing a list of possible items and prices.

BENEFICIARY ORGANIZATION(S)	ASSIGNMENT DATES	ASSIGNMENT LOCATION	REPEAT BENEFICIARY?	VOLUNTEER SPECIALIST(S)
Klimovo Farm Bakharev Farm	August 17-September 2, 1995	Vologda Region, Russia	Yes	Judy Klusman

Klusman worked with two different farms during her assignment: Klimovo Farm and Bakharev Farm. The assignment at Bakharev Farm was a follow-up to Klusman's assignment there in 1994.

At Klimovo Farm, Klusman participated in the following activities:

- evaluated the current situation and then assisted in creating a budget for the operation;
- assisting in preparing an application for a equipment purchase loan;
- analyzed facilities and buildings on the farm; and
- provided suggestions for improvement of current facilities;

At Bakharev Farm, Klusman accomplished the following in addition to those activities listed above:

- evaluated the progress the farm has made since her last visit;
- assisted in updating the farm's income statement;
- provided recommendations for Bakharev's milk processing operation.
- discussed William Behrens' report from a volunteer assignment in February, 1995 and provided additional recommendations;
- collected information on milk prices in Russia;

In addition to working specifically with the two farms, Klusman also provided technical assistance to other organizations in the area. She met with Vologda AKKOR staff and Veliky Ustjug Administrator, Mr. Gladishev, to discuss private farming in the district, visited a local joint stock company farm and met with Leonid Tonogin, an attorney helping the Vologda AKKOR. Finally, she attended the agricultural equipment fair in St. Petersburg.

BENEFICIARY ORGANIZATION(S)	ASSIGNMENT DATES	ASSIGNMENT LOCATION	REPEAT BENEFICIARY?	VOLUNTEER SPECIALIST(C)
Vologda AKKOR Sergei Yakovlev	August 22-September 2, 1995	Vologda, Russia	Yes	Byron Fink Dana Fink

The Fink's traveled to Vologda to follow-up on their previous assignment there and to assist Sergei Yakovlev with his meat processing project. They were effective in helping Yakovlev to make a decision as to which area of agricultural processing he would concentrate on. This resolved a long-standing lack of focus at this beneficiary organization. To assist in arriving at the selection of pork processing, the Fink's:

- evaluated the possibilities for meat processing venture;
- surveyed meat shops, restaurants and meat markets in the area to determine market demand;
- provided Yakovlev with a business plan to implement the project;
- provided financial information for the project;
- provided information on credit organizations; and
- identified partners for the meat processing venture.

During their assignment, the Fink's also met with other farmers in the area. In particular, they connected with Kuskov's, the farmers from the area that they assisted last year; and followed up on their progress toward the goals they set during that intervention. In addition, the Fink's met with another area farmer, Pavlushkov, to suggest some other ways to generate additional income including using part of their new home as a hotel and the possibility of a wood-working business. Pavlushkov is a very progressive Vologda farmer whose successes have been previously documented by Land O'Lakes.

BENEFICIARY ORGANIZATION(S)	ASSIGNMENT DATES	ASSIGNMENT LOCATION	REPEAT BENEFICIARY?	VOLUNTEER SPECIALIST(S)
Venev Dairy Processing Plant	August 31-September 16, 1995	Venev, Russia	Yes	William Broske

This assignment was a follow-up to a previous visit by Broske in February, 1995. During the previous assignment all the preparation work for making mozzarella was completed. During this assignment, Broske completed the following:

- located the right quality milk for making cheese;
- advised the milk plant to raise their payment price for milk from private farmers in order to get good quality milk;
- produced mozzarella cheese, the first in this area, and presented the product to the District Administration;
- provided suggestions on follow-up, equipment, marketing and financial resources needed to maintain mozzarella production in Venev.

#### FFA SUBAGREEMENT

FFA completed its summer program at the beginning of this quarter. FFA's quarterly report is included, in its entirety, as Attachment B.

#### OUTCOMES

Although impact is sometimes difficult to assess in Russia and Ukraine given the high rates of inflation and the volatile market, many of Land O'Lakes beneficiaries have instituted major changes based on the advice and technical assistance of Land O'Lakes volunteers. A summary of these changes, identified as outcomes of technical assistance, follows.

To determine outcomes, a beneficiary organization was measured for improvement or activity in eleven different areas. Forty-two organizations in eight oblasts of Russia were measured. The following chart provides an overview of the results of this process.

Area of Measurement	# of Farms Showing Improvement or Activity	% of Farms Showing Improvement or Activity
Progressive management & development of business structure	38	90%
Potential for processing business	29	70%
Increase of assets	36	86%
New products developed	25	60%

Area of Measurement	# of Farms Showing Improvement or Activity	% of Farms Showing Improvement or Activity
Business plan development	36	86%
Production/processing techniques development	16	38%
Production/processing cost reduction	14	33%
Increase of customers	30	71%
Increase of suppliers	21	50%
Improvement of quality	19	45%
Increase of production capacity	20	48%

Following are examples of these improvements from each oblast.

### Vologda

**Kuskov Farm:** The farm was reorganized to provide shared physical and financial responsibility, thereby minimizing risk. Each partner is fully responsible for a separate operation, e.g. saw-mill, sales, sheep farm, construction, etc. The lumber operation is working in close association with the local government lumber company, proceeding with a barter operation. This technique has increased the number of both customers and suppliers.

**Bakharev Farm:** The farm constructed a new barn that meets all sanitary requirements and provides enough room for milk processing as well. The size of the dairy herd was increased 30%. A market survey was performed in the area and provided the justification necessary for attempting dairy processing.

### Tver

**Esfir Farm:** The farm hired a qualified technologist from St. Petersburg and reorganized to provide separate operational divisions. Five new types of sausages and smoked meat were developed.

**Tukalevsky Farm:** The farm opened several stores in the district capital and now distributes produce to the St. Petersburg wholesale market.

### Ryazan

**Pavlov Farm:** The farm designed and built a new cow barn that enabled an increase in milk production. The size of the dairy herd increased to 50. Acreage dedicated to forage production was increased to 60 hectares.

**Trekhpolye Farm:** The acreage of the farm was increased from 30 to 60 hectares. The farm started pig production and is now concentrating on obtaining funding for the establishment of a bakery.

**Bobylev Farm:** The acreage of the farm has been increased from 36 to 300 hectares. Pig production has begun with the purchase of 10 sows.

**Molchanov Farm:** The farm has begun aquaculture using newly acquired methods of rationing.

**Khvatova Farm:** The farm completed a feasibility study on establishing a cheese plant with a capacity of 3000 liters of raw milk per shift. The outcome was that the plan was feasible but only with an assured amount of quality milk. In order to contribute to this requirement, the farm has purchased three breeding heifers with a certified productivity of 16,000 pounds per year and a certified breeding bull. To accommodate the increased herd, 50 hectares of winter wheat has been planted to be used for feed. This also represents a switch to grain forage. The farm has also shown improvement in cheese-making technology by adapting a method to test the readiness of the cheese and the quality of the cheese grain. The farm has also improved its accounting methods.

### Ivanovo

**Tarayev Enterprises:** Through persistence, Tarayev opened a dairy plant and completed construction of potato storage. His enterprises have developed into a large company and he was elected a member of the board of his local bank.

**Pertsev Farm:** The farm association has started negotiations to purchase a grain bin complex from the US. This will solve the current storage and transportation problem (see Lee McGuire assignment above).

### Tula

**Venev Dairy Plant:** The plant began production of mozzarella cheese, perhaps the first in Russia. An aggressive promotion campaign is planned for 1996. As part of production start-up, the plant implemented using dried frozen lactic cultures as starters and dry milk for obtaining necessary protein content of milk.

**Trud Association:** The association is using agricultural waste from other farms for pig feed supplements.

### Samara

**Nadezhda Farm:** The farm opened a bakery and began production of crusty corn bread.

## Nizhny Novgorod

**TOO Tatyana:** This processing partnership has organized an agreement with the Chief District Sanitary Inspector to establish permanent controls on the quality of milk supplied to the plant.

## **IMPACT**

BENEFICIARY ORGANIZATION(S)	LOCATION	REPEAT BENEFICIARY?	VOLUNTEER SPECIALIST(S)
Kaliningrad Regional Farm Association (previously Kaliningrad AKKOR)	Kaliningrad, Russia	Yes	John and Richard Hess, Peter Brauhn, Al Wanous, Hans Radtke, Robert Christenson, Leslie Burch Jr.

## Profile

Formerly Eastern Prussia, Kaliningrad was annexed by the Soviets after World War II. The native German population was relocated to Central Asia or killed and completely replaced by Soviet citizens. Any tradition of private farming was wiped out; therefore, the only experience the current local population has is 50 years of State-run, collective farming.

The current private farmers organizations have a top down structure and were established initially on the Oblast level by the government. District associations have since been started, also initiated from above. Smaller associations were being started at the initiative of a private German humanitarian program that provides high yield hybrid seed, varieties of small grains and potatoes new to the area, and free consulting services for working with this seed. At the end of the season, farmers were to return the same amount of seed to the fund that they received in order to maintain it. This program only provided seed to private farmers associations so the farmers were forming such structures solely to qualify for the seed.

The German programs began in the area by providing equipment to private farmers predominately tractors. A private farmer leader, Evgeny Pavlovsky, expressed dissatisfaction with this approach. He believes that it only reinforces the tendency among farmers in Kaliningrad to sit and wait for things to be handed to them. The program has since been discontinued.

Pavlovsky was one of the first private farmers in Russia, beginning when he moved to Kaliningrad from Siberia in 1988. Strangely, credit for private farmers under the Communist system was much more favorable and the market prices were also better. Pavlovsky became one of the first official millionaires in Russia, owing most of his success to his swine operation.

When Kaliningrad was still a free economic zone, the Regional Farm Association enjoyed better times, trading in farm equipment across the border with Poland and Germany. The Association raised money to support their activities, including an extension service supported by two full-time specialists and a computer. The Association collected and dispersed information to the private farmers in the area and leveraged funds for equipment from the Oblast Government. In March, 1994, the economic situation in the Oblast forced the Association to sell their computer and the specialists left for better-paying jobs.

Pavlovsky sees the problem with agriculture in Russia as a problem with education. He is very supportive of reforming education and works closely with the agricultural vocational school in Polessk. He also believes strongly in the need for political activity by farmers organizations to initiate favorable laws regarding land rights and cooperatives. He, himself, lobbies on the Oblast level and was instrumental in making sure that four sets of meat processing equipment slated for financing by the Oblast budget reached their final destination.

### Impact

With Pavlovsky's assistance, the Regional Farm Association has been instrumental in **establishing three meat plants** in Kaliningrad. These meat plants are functioning within a highly competitive environment with imported Polish meat products available at lower prices than local goods. Several of the Farmer To Farmer volunteers worked with the Association to improve production quality. **Despite a cost which is 7% higher** than the competition, the Association continues to **sell out** its entire stock of product. For the Russian system, this is an amazing example of the value of quality.

## **PROGRAM MANAGEMENT**

There were no major changes or developments in program management during this quarter.

## **QUARTERLY FINANCIAL SUMMARY**

The quarterly financial summary is included in Attachment D.

## **ATTACHMENTS**

- A. Volunteer Tracking Information
- B. FFA Quarterly Report
- C. Zuber Final Report
- D. Quarterly Financial Summary

ATTACHMENT A

VOLUNTEER TRACKING INFORMATION

YEAR THREE, QUARTER FOUR				
July-September, 1995				
Volunteer	State	Dates In-Country	Oblast, Country	T.A. Objective Code
Don Johnson	WI	6/3-7/3/95	Respublika Krym, Ukraine	6
Harry DuBose	SC	6/3-7/3/95	Respublika Krym, Ukraine	6
Richard Barker	NH	6/3-7/3/95	Moscow, Russia	6
Loren Bebb	OR	6/3-7/3/95	Tver, Russia	6
Gale Wilson	WA	6/3-7/3/95	Moscow, Russia	6
Gina Boster	CA	6/3-7/3/95	Moscow, Russia	6
Joseph Cvancara	WA	6/3-7/3/95	Penza, Russia	6
William Barton	TX	6/3-7/3/95	Samara, Russia	6
James Brousseau	MI	6/3-7/3/95	Orel, Russia	6
Marcus Arthur	MT	6/3-7/3/95	Irkutsk, Russia	6
Douglas Fischer	LA	6/15-7/1/95	Zakarpats'ka, Ukraine	3B
Mac Graham	WI	6/22-7/8/95	Zakarpats'ka, Ukraine	1
Marcy Graham	WI	6/22-7/8/95	Zakarpats'ka, Ukraine	1
Lee McGuire	WA	6/29-7/15/95	Ivanovo, Russia	1
Bob Christenson	MN	7/20-8/5/95	Kaliningrad, Russia	2B
Lavern Palmberg	MN	7/20-8/5/95	Zakarpats'ka, Ukraine	3B
Chauncey Zuber	MN	8/10-26/95	Moscow, Russia	2A
Leslie Burch, Jr.	MN	8/17-9/2/95	Kaliningrad, Russia	2B
Judy Klusman	WI	8/15-9/2/95	Vologda, Russia	1
Byron Fink	MO	8/22-9/2/95	Vologda, Russia	2B
Dana Fink	MO	8/22-9/2/95	Vologda, Russia	2B
William Broske	WI	8/31-9/16/95	Tula, Russia	2B

LAND O'LAKES, INC.  
 FARMER TO FARMER PROGRAM  
 VOLUNTEER TRACKING

**YEAR THREE, YEAR-TO-DATE**  
 October, 1994 - September, 1995

# of Volunteers			Technical Assistance Objective										
Total	Male	Female	1	2A	2B	3A	3B	4	5	6	7	8	9
47	39	8	10	2	16		6		1	12			

Volunteer States																					
AZ	CA	CO	IA	ID	IL	IN	LA	MA	MI	MN	MO	MT	ND	NH	OH	OR	SC	TX	WA	WI	TOTAL
1	1	2	2	2	2	1	1	1	1	9	3	1	1	1	1	3	1	1	3	9	47

**PROGRAM-TO-DATE**  
 September, 1992 - September, 1995

# of Volunteer			Technical Assistance Objective										
Total	Male	Female	1	2A	2B	3A	3B	4	5	6	7	8	9
128	112	16	16	16	40	2	15	0	2	36	0	1	0

Volunteer States																									
AZ	CA	CO	ID	IA	IL	IN	MA	LA	MI	MN	MO	MT	ND	NH	NY	OH	OK	OR	SC	SD	TX	VA	WA	WI	TOTAL
2	1	2	6	15	8	3	1	2	2	23	10	1	3	1	1	2	2	4	1	5	2	1	8	22	128

13

LAND O'LAKES, INC.  
 FARMER TO FARMER PROGRAM  
 VOLUNTEER TRACKING

YEAR THREE, YEAR-TO-DATE - October, 1994 -September, 1995												
OBLAST	# OF VOLUNTEERS PER T.A. OBJECTIVE CODE											TOTAL
	1	2A	2B	3A	3B	4	5	6	7	8	9	
<b>RUSSIA</b>												
Irkutsk								1				1
Ivanovo	1				1							2
Kaliningrad			3				1					4
Moscow		2						3				5
Nizhny Novgorod			1									1
Orel								1				1
Penza								1				1
Ryazan	1		5					2				8
Samara			1					1				2
Tula			1									1
Tver	1		1					1				3
Vologda	3		2									5
<b>UKRAINE</b>												
Respublika Krym								2				2
Zakarpats'ka	4		2		5							11
<b>TOTALS</b>												
7 Oblasts	10	2	16	0	6	0	1	12	0	0	0	47

14

LAND O'LAKES, INC.  
 FARMER TO FARMER PROGRAM  
 VOLUNTEER TRACKING

PROGRAM-TO-DATE												
September, 1992 - September, 1995												
OBLAST	# OF VOLUNTEERS PER T.A. OBJECTIVE CODE*											TOTAL
	1	2A	2B	3A	3B	4	5	6	7	8	9	
<b>RUSSIA</b>												
Irkutsk								2				2
Ivanovo	3	1	5		2		1					12
Kaliningrad		1	4	1			1	3				10
Moscow		2			4			14				20
Nizhny Novgorod			1									1
Orenburg								1				1
Orel								1				1
Penza								2				2
Ryazan	2	3	13	1	2			4		1		26
Samara			1					1				2
Stavropol								1				1
Tula		2	2					1				5
Tver	1		2					1				4
Vologda	5	5	7		1			1				19
<b>UKRAINE</b>												
Kyyivsk'ka		1										1
L'vivs'ka	1	1	2					1				5
Respublika Krym								3				3
Ternopil's'ka					1							1
Zakarpats'ka	4		3		5							12
<b>TOTALS</b>												
19 Oblasts	16	16	40	2	15	0	2	36	0	1	0	128

5

ATTACHMENT B  
FFA QUARTERLY REPORT

**Quarterly Report  
Farmer to Farmer Program**

*National FFA Organization  
Subcontract with  
Land O' Lakes, International*



**October 10, 1995**

## Executive Summary

The National FFA fielded ten volunteers in Russia and Ukraine during the 1995 summer period. Volunteers from agriculture education included high school agriculture instructors, university agriculture education professors and state supervisors of agriculture education. Volunteers were in country for approximately 30 days from June 5, 1995 to July 3, 1995. The educators participated in an intensive orientation session with Russian agriculture educators at the National Educational Methodology Center near Moscow. Following this session, teachers were dispersed to their assigned schools to present seminars, provide teacher training, conduct curriculum development activities and assist in the development of agricultural youth organizations.

The 1995 volunteers and their host schools are as follows: (Russia) Jim Brousseau from Michigan with Mtensk Agriculture Lyceum in Orel Region; Marcus Arthun from Montana with Irkutsk State Farm & College in Siberia; Dr. Richard Barker of New Hampshire with Yakhromsky State Farm & College in the Moscow Region; Gale Wilson of Washington and Gina Boster of California at the Educational Methodology Center in the Moscow Region; Loren Bebb of Oregon at the Tver Agricultural Academy, Daniel Barton of Texas at the Samara Agro Academy; Dr. Joseph Cvancara of Washington with the Penza Agricultural Institute; (Ukraine) Donald Johnson of Wisconsin at the Crimea Agricultural Academy, and Harry DuBose of South Carolina with the Crimean Agriculture Technicum.

Outcomes of this phase of the program included over 180 hours of lectures and seminars on the subjects of private farm management and marketing techniques under a free market system. Volunteers began the process of providing examples and materials that will be integrated into a national curriculum on agriculture marketing being developed by the Ministry of Agriculture. Several schools have begun to organize youth clubs that will use some of the FFA's techniques to foster entrepreneurship skills in their students.

Volunteers wrote their reports while in Russia and the recommendations were translated by FFA's staff and provided to each site.

## Scope of Work

When countries go through major economic and philosophical transitions such as the former Soviet Union is, major change is usually needed in the education system. Agriculture is being hit hard by the changes occurring in Russia and Ukraine and as a result, schools are seeing a severe decline in the interest of students in agriculture as a career. FFA, through it's Farmer to Farmer activities, will help to lead the schools into the development of new subject areas, teaching techniques and classroom examples and activities that will motivate students in the new career areas that are opening up in agriculture. The "new agriculture student" in Russia and Ukraine wants to study business management and marketing. They want to become businessmen and start their own small businesses or farms rather than work for a state enterprise. This is a difficult transition for a teacher to make that has 30 years of experience in teaching the party line. Schools admit that some change is needed in agriculture in the former Soviet Union and real change is made through education.

The FFA's primary objective in this phase of the project was to provide teaching examples to curriculum developers and teachers to be used in conjunction with a new curriculum being developed by the Ministry of Agriculture and Educational Methodology Center (EMC). The Ministry of Agriculture provide funding during 1993-94 to develop a curriculum for agriculture marketing. This type of course has not been taught in the former Soviet Union and there is pressure from schools to implement this topic as a course

because of increasing demand by students. During this funding period, the only thing that was developed was an outline of what topics should be taught and how many hours should be spent on each topic. The Ministry of Agriculture wants agriculture technicians to begin teaching this new curriculum in 1996-97 and yet there is no teaching guide, materials, or audio/visual aids. In addition, teachers have no experience in this field and therefore cannot draw from past experience to get them through.

FFA is responding to the request by the EMC and several schools to assist in preparing curriculum materials and provide teacher training in agricultural marketing. The U.S. volunteers provided agricultural marketing examples and case studies that teachers will be able to use in their classroom and distributed curriculum guides and teaching aids to their host schools and the EMC.



*During their orientation program at the Educational Methodology Center, the 1995 volunteer group was given a tour of Yakhromsky State Farm and College, personally guided by the farm's director, Alexander Sarbash. The group retraced the path taken one week earlier by Russian President Boris Yeltsin.*

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Additional seminars were conducted at the host sites according to local requests. These topics most commonly were private farm management and marketing, the structure of agriculture in the USA, and the development of agricultural youth organizations. A complete schedule of seminars for each site can be found in the appendix. Some technical agricultural topics were presented. Seminar audiences predominantly were agriculture teachers and students. We encouraged the schools to invite in local private farmer associations and joint stock company managers and specialists. The private sector was well represented at the seminars that dealt with technical agricultural topics and marketing case study presentations.

A secondary goal of the FFA's Farmer to Farmer project is to assist in the establishment of a school based agricultural youth organization. It is hoped that this movement will replace some of the beneficial activities of the outlawed Khosomol Organization and help motivate students to develop themselves toward careers in agriculture. Numerous private organizations have sprung up since the fall of communism, but none have earned the respect and support of the educational system.

### Summary of Major Outcomes and Achievements

- 1) Over 180 hours of technical lectures and teacher training were provided at 10 educational institutions throughout Russia and Ukraine;
- 2) Teachers received examples of curriculums, teaching methods and case studies for the instruction of agricultural marketing and management;
- 3) Two agricultural youth organizations received advice and technical support from the FFA organization pertaining to their future development and activities;
- 4) The official state agricultural marketing curriculum was reviewed and recommendations made pertaining to the content and methods of teaching the subject area in Russia; and,
- 5) Schools were encouraged to communicate and listen to the needs of private farmers in their training through their involvement in seminars and through the development of case studies for the teaching of marketing and management.



*Volunteers Gina Boster and Richard Barker experience a Russian Grocery Store in Moscow's Tverskaya District. They observed that imported products were sometimes cheaper and higher quality than the products produced just miles down the road on a state farm. A week before during a visit to a state farm, the manager complained that at current prices he could not make money and that a embargo should be placed on foreign imports.*

Following are a list of major achievements, outcomes and recommendations for each site:

***Crimea Agriculture Institute, Simferopol, Ukraine:***

Crimea is the best region of the former Soviet Union for producing wine and over 200 farms in the region are in this business. However, with the split of Ukraine and Russia into two separate countries, Crimean wine is not allowed to be imported into Russia. Crimean vineyards desperately want to develop new markets for their products, but indicated they did not know how to meet the processing and packaging standards outside of the former Soviet Union.

Don Johnson of Door County Wisconsin, presented information to viticulture educators and vineyard managers about making connections in the West, wine packaging and marketing in the USA and advertising techniques. One of the major problems in the industry there is that they cannot afford to buy cork for the bottles. Some of the former state farms are being privatized, but marketing seems to be just as much of a problem for the private farms as for the state enterprises.

The vineyards currently do not have contacts in the West and Mr. Johnson worked with a group of managers and educators to put together some basic ideas to hold a wine festival that would attract companies from the West to come and visit the area and make contacts. Because of the government's inability to assist in any modernization of the industry, Johnson made this recommendation. He encouraged the managers to join together into a cooperative for the purchase of supplies that are hard to find and in organizing festivals and other events that will draw attention and business visitors to the Crimea.

***Penza Agricultural Institute, Penza, Russia:***

The Penza Agricultural Institute and the Rural Youth Union of Penza Region made a joint request to hold seminars on agricultural marketing and management. Dr. Joseph Cvcancara of Washington State University presented lectures to students and farm managers about the organization and management of farms in the USA. As a result of these presentations, closer cooperation between the Rural Youth Union, private farmers and the agricultural faculty has been started. They have agreed to hold regular seminars about agricultural changes, especially in marketing and management.

FFA has developed a strong tie to both the agricultural institute and Rural Youth Union in the region. FFA has agreed to host members of the Rural Youth Union that are students at the Institute for agricultural work trainee programs on U.S. farms starting in 1996. Through this continued contact, better careers can be developed for graduates of the Penza Agricultural Institute and more students will stay involved in agriculture.

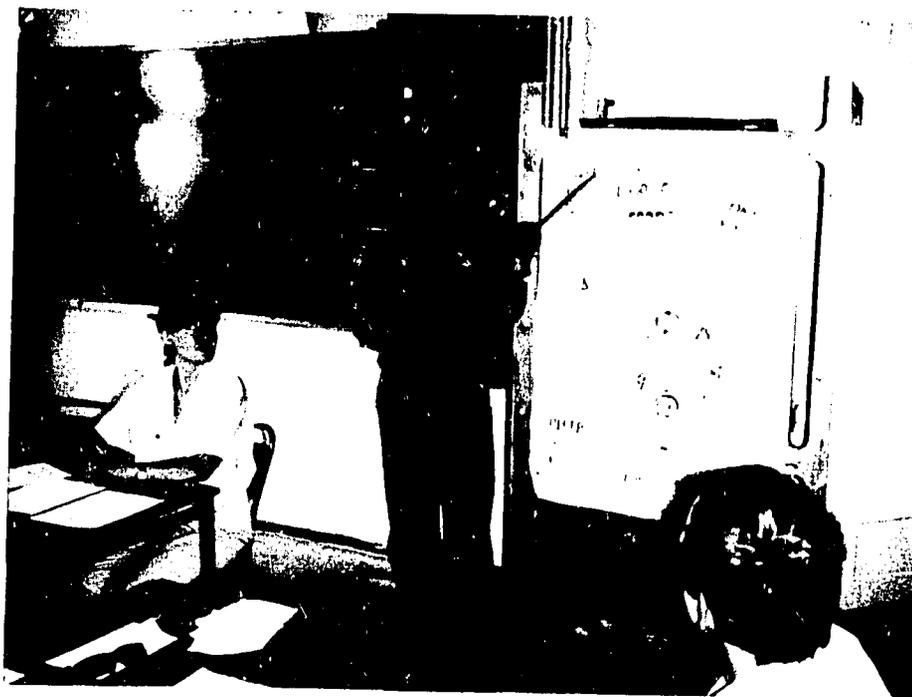
***Irkutsk State Farm & College, Irkutsk, Siberia***

Considerable progress was made in Irkutsk during the Farmer to Farmer program conducted there in 1994. Marcus Arthun of Montana was sent to reinforce this progress by training teachers and students in techniques for self-sufficiency through enterprise creation. At the request of the hosts, special attention was given to sustainable agriculture techniques for both crop and livestock production. A new youth organization, Rebirth of the Land of Siberia, was formed with students from the agricultural schools in 1994 as a result of the

work of Marcia Paterson, a volunteer on the Farmer to Farmer Program. This organization has 100 members and Mr. Arthun continued to provide advice and recommendations on activities and objectives for the organization. The organization has received support from the local schools and regional government. They now have a full-time staff person to direct the work of the organization and have contracted to do several training projects for educators. One follow-up recommendation was to try an experimental plot of winter hardy alfalfa hay for their cattle. Mr. Arthun knows of special varieties used in Montana that could survive in Siberia. He is organizing a shipment of the seed for a trial there next year.

***Yakhromsky State Farm & College, Novosinkovo, Russia***

The development of an agricultural youth organization in Russia that could provide opportunities for youth to develop entrepreneurship and leadership skills has been a continuing goal of FFA's work in Russia. Yakhromsky College has shown interest in developing such an organization, but seems to lack the initiative in putting together a plan to bring it about. Dr. Richard Barker, State Supervisor of Agriculture Education in the State of New Hampshire, was assigned to interview students, teachers, administrators and area farmers about the best way to go about organizing such a movement. Dr. Barker found that there is a lot of interest in subjects and skills that currently the school is not preparing students for. Therefore, he recommends that it is time for Yakhromsky to make changes in it's curriculum, teaching methods, facilities and equipment in order to prepare young people for the agriculture industry of tomorrow.



*Sergei Litvin of the All-Russian Agricultural College of Correspondence Education in Sergiev-Possad presents the use of a novel teaching method used in Russia using diagrams. Mr. Litvin's presentation was a part of the orientation seminar at the EMC.*

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Yakhromsky has requested a follow-up volunteer to come in the fall or winter of 1995-96 to assist in the establishment of a new youth organization that will be started with students studying a new marketing and management curriculum. Considerable progress was made during Dr. Barker's trip in getting students, teachers and administrators a better understanding of how FFA type activities serve to improve education in the USA. Dr. Barker recommends starting one technicum at a time and develop a model program. In follow-up to Dr. Barker's recommendations, the National FFA has selected Yakhromsky as one of three schools in Russia that will be a part of a USIA sponsored School to School Linkage program. Administrators, teachers and students will work in close cooperation with Burley High School in Burley, Idaho, to develop appropriate youth activities and curriculums.

***Samara Agro Academy, Samara, Russia***

Teacher training of the economics faculty at the agro academy was the main purpose of Daniel Barton's program in Samara. Hailing from Texas, Barton worked with faculty in the areas of business planning examples, the system of marketing in the USA and comparisons to the Russian system, and teaching methodologies used to present this information in the USA in both a theoretical and practical environment. The seminars were opened to area farmers and thanks to the regional office of the U.S. Feed Grains Council located in Samara, many private farmers attended the sessions. Several of the seminars were held at their facility.



*Volunteer Loren Bebb of Oregon enthusiastically shows a Russian colleague the types of computer programs that are used by students in U.S. high schools. Bebb used his laptop to make presentations at the Tver Agricultural Academy.*

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***Tver Agricultural Academy, Tver, Russia***

At the request of the International University of Business and Information Technologies, located at the Tver Agricultural Academy, Loren Bebb of Oregon presented seminars to students and faculty. Seminar topics included computer information systems for farmers, business planning and marketing and a special leadership unit that presented information on career development, leadership skills and personal growth. Mr. Bebb found the students at this school very motivated and excited about the future, but little opportunity to test their management skills through the current curriculum. He recommends that they provide more classes on leadership and management and left them with copies of the curriculum that he developed in Oregon. He also recommended that students get more experience with management and marketing through internships before they graduate from the special program.

***Educational Methodology Center, Novosinkovo, Russia***

The primary purpose at the EMC this summer was to develop a plan to add materials and examples to the Ministry of Agriculture's marketing curriculum. An outline of this four year program exists, but no teaching materials are included. Both volunteers, Gina Boster of California and Gale Wilson of Washington, held numerous discussion sessions with the EMC staff concerning this new curriculum. The volunteers proposed a number of changes in the outline of the curriculum and identified some U.S. materials that might be useful in providing teachers with materials. The revised curriculum as presented to the EMC staff, increased the depth and continuity of the program. A copy of this revised curriculum outline is included in the appendix. The two volunteers showed some computer software that might be useful in this curriculum and spoke about ways computer simulation could be used to provide some practical experience in marketing and management. At the request of the EMC, a paper on the professional skills necessary to be a specialist in marketing was developed to provide the curriculum with an understanding of what type of specialist they are attempting to prepare. This document is also attached in the appendix.

***Crimea Agricultural Technicum, Mahlynkaya, Ukraine & Mtsensk Agricultural Lyceum, Orel Region, Russia***

Similar to several of the other host sites, the focus of activity in Crimea and Mtsensk was the training of instructors and key students in the methods of farm management and agriculture education in the USA. The schools were very responsive to the ideas presented and both asked for additional assistance in developing youth activities that can build strong entrepreneurship skills. The attitude of the school's staff, especially the directors, make both of these sites prime candidates for the development of a model youth organization that incorporates strong entrepreneurship skills and a marketing and management curriculum.

**Impact on Private Farms in the NIS**

The involvement of the FFA Organization in Land O'Lakes Farmer to Farmer Program is assisting in the effort to support private farms by making the necessary changes in the agriculture education system to allow this transition to occur. Teachers have always had a strong influence on the career choices of their students. The sessions that FFA has been presenting to teachers in the former Soviet Union has demonstrated the changes in the curriculum, teaching methods and especially attitudes that will allow students to find bright futures in agriculture. From the evaluations conducted with volunteers and host sites alike, these changes are starting to take place.

# Appendix

# Revised Marketing Curriculum

Submitted to the Educational Methodology Center - 6/22/95

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## A. General Subjects

1. Basics of Social-Political Knowledge
2. Basics of Economic Theory (Supply & Demand, Free Enterprise)
3. Social Psychology
4. Higher Mathematics
5. Foreign Language

## B. Special Subjects

6. Technology of the Branches of Agri--Industrial Complex
7. Organization and Planning of Production at Branches of the Agri-Industrial Complex
8. Economy of Enterprises at the Agri-Industrial Complex
9. Statistics  
(New Topics)
10. Consumer Marketing:
  - Customer Relations
  - Pricing
  - Competition
  - Advertising
  - Careers
  - Consumer Trends
  - Consumer Wants/Needs/Demands
11. Basics of Management:
  - Careers
  - Types of Business
  - Employer/Employee Relations
12. Basics of Legislation:
  - Trademarks
  - Taxes
  - Labor Relations
  - Labor Safety
  - Employee Incentives
  - Careers
13. Agricultural Records:
  - Careers
  - Income/Expenses
  - Budgeting
  - Balance Sheets & Pro Forma
  - Managing Books
14. Computer Applications in Marketing:
  - Careers
  - Data Analysis
  - Data Base
  - Spreadsheets
  - Farm Records
  - Project Reports
  - Computer Simulations

15. Public Relations: Careers  
Selling to Producers  
Selling for Producers  
Providing Services  
Customer Buying Process  
Selling Process
16. Agrimarketing Advertising: Careers  
Types of Advertising  
Finances  
Research of Target Audience  
Development of All Forms of Advertisements
17. Finances and Credit: Futures  
Careers  
Credit Lines  
Cash Marketing  
Cash Contracts  
Selling  
Loans - Applications

### **C. Professional Subjects**

18. Marketing: Basic Concepts  
World Trade  
Marketing Plans  
Pricing  
Distribution  
Careers  
Selling  
Processing  
Transportation  
Agrimarketing Functions  
Packaging  
Competition  
Market Share
19. Private Business Ownership: Planning  
Accounting  
Managing  
Decision Making  
Market Research  
Goal Setting  
Business Planning
20. Commodity Analysis: Quality Control  
Storage  
Careers  
Transportation  
Packaging

### **D. Physical Training**

**E. Optional Subjects:** *According to the choice of the educational institution*

# **1995 Volunteer Lists**

## **1995 LOL FARMER TO FARMER PARTICIPANTS**

*(with office phones)*

Richard Barker  
New Hampshire Department of Education  
101 Pleasant Street  
Concord, NH 03301  
(603) 271-3186

Yakhromsky State Farm & College

Loren Bebb  
Prairie City High School  
P.O. Box 345  
Prairie City, OR 97869  
(503) 820-3314

Tver Agricultural Institute

Gina Boster  
Norco High School  
2065 Temescal Avenue  
Norco, CA 91760  
(909) 736-3397

Educational Methodology Center

Harry DuBose  
Grand Strand Career Center  
900 - 79th Avenue, North  
Myrtle Beach, SC 29577  
(803) 449-3349

Crimea Agricultural Technicum

Joseph Cvancara  
Washington State University  
Room 205 L.J. Smith  
Pullman, WA 99164  
(509) 335-2899

Penza Agricultural Institute

William Barton  
Jones High School  
P.O. Box 39  
Coldspring, TX 77331  
(409) 653-2367

Samara Agricultural Institute

James Brousseau  
Milan High School  
920 North Street  
Milan, MI 48160  
(313) 439-2411

Orel Agricultural Institute

Marcus Arthur  
Absarokee High School  
Box 2020  
Absarokee, MT 59001  
(406) 328-4583

Irkutsk State Farm & College

*1995 LOL CONTINUED - PAGE 2*

Don Johnson  
Southern Door County High School  
8240 Highway 57  
Brussels, WI 54204  
(414) 825-7333

Gale Wilson  
Washtucna High School  
P.O. Box 688  
Washtucna, WA 99371  
(509) 646-3237

Crimea Agricultural Institue

Educational Methodology Center

# **Seminar and Program Schedules**

Orientation Program  
FFA Farmer to Farmer Program  
Moscow Portion

5 June

17.25 Arrival at Sheremetyevo Airport  
19.00 Arrival at Hotel Soyouz  
20.00 Dinner at Hotel - FFA Russia Staff  
Retire to Room

6 June

09.00 Breakfast at Hotel Soyouz  
10.00 Explanation of Program  
13.30 Lunch at Hotel  
14.00 Program Preparation  
16.00 Leave Hotel for City Center by Bus and Metro  
17.30 Moscow River Cruise from Kievskaya Station  
Metro Station - Kievskaya  
19.00 Dinner at Hotel Ukraine

7 June

08.00 Breakfast at Hotel  
09.00 Leave Hotel for City Center  
Metro Stations - Revolution Square  
Kremlin Tour  
Red Square  
Lenin Mosolieum  
Monument of Unknown Soildier  
13.30 Lunch - Silver Century Restaurant  
14.30 City Walk - Tverskaya Street  
Yelisyeyevski Shop  
Pushkin Monument  
16.30 Return to Hotel  
17.30 Leave Hotel for City Center  
19.00 Bolshoi Theatre - Bayaderka Ballet

8 June EMC Teacher Seminars - Novosinkovo

APPROVED BY  
The Head of Administration  
of Secondary Specialized Educational Institutions

  
" 24 " APR 11 V.A. Smirnov  
1995

**PROGRAM  
OF RUSSIAN-AMERICAN TEACHERS' SEMINAR  
EMC**

**JUNE 8-9, 1995**

Thursday, June 8

- |                  |  |
|------------------|--|
| 8.00-9.30 a.m.   | Breakfast. Registration of the participants  |
| 9.30-10.30 a.m.  | Presentation of the Participants, V.V. Voronkov  |
| 10.30-11.30 a.m. | System of Agricultural Secondary Specialized Education in Russia, I.Z. Antiushin   |
| 11.30-12.00 a.m. | Break  |
| 12.00-1.00 p.m.  | Report of the American Participants "Continuity of Agricultural Education in the USA"  |
| 1.00-2.30 p.m.   | Lunch  |
| 2.30-3.30 p.m.   | "System-unit Curricula" E.V. Kossovitch, N.M. Baluk  |
| 3.30-4.00 p.m.   | "System of Planning of Students' Out-of-classes Activities in SSEI" S.B. Kirsanova, EMC  |
| 4.00-4.30 p.m.   | Break  |
| 4.30-5.30 p.m.   | "Youth Organizations in Educational Institutions of the USA"-<br>The American Participants   |
| 5.30-6.00 p.m.   | "Shatalov's System in SSEI" S.Ia. Litvin, teacher-<br>methodologist of All-Russian Agricultural College of<br>Correspondence Education |
| 6.00-6.30 p.m.   | Introduction to the Video-unit of the EMC  |
| 7.00-8.00 p.m.   | Dinner   |
| 8.00-9.00 p.m.   | Excursion in Novo-Sinkovo  |

Friday, June 9

- 8.00-9.00 a.m. Breakfast
- 9.00-10.00 a.m. "What skills and knowledge do the students obtain in schools of the USA to operate successfully in conditions of market economy?" American Participants
- 10.00-11.00 a.m. "K.Ia. Vazina's System" A.Ia. Gorkunova, Vice-Director of Arzamas Agricultural College
- 11.00-11.30 a.m. Break
- 11.30-1.00 p.m. "Rating System of Students' Knowledge Evaluation - prospects of the experiment" T.A. Romanova, EMC methodologist, Osokina, Head of the Teachers' Training Chair of the Timiriazev Agricultural Academy
- Introductory Lecture
  - Work at Joint Micro-groups
  - Reports of Micro-groups
  - Concluding Speech
- 1.00-2.00 p.m. Lunch
- 2.00-4.00 p.m. "Round Table" on problems of educational methodology. Experience exchange
- 4.00-4.30 p.m. Break
- 4.30-5.30 p.m. Final Analysis
- Report of the representatives of the American party
  - Report of the representatives of the Russian party
- 5.30-7.30 p.m. Dinner

I.Z. Antiushin

EMC Director

Farmer to Farmer De-Briefing Program  
*Tentative Schedule*

Monday: Arrival of Teachers Back into Moscow - Hotel Soyouz

Jim Brousseau at 06.20 hours (Taxi)  
Marcus Arthun at 09.00 hours (Rayev Taxi)  
Joe Cvancara at 09.40 hours (Taxi)  
DuBose and Johnson at 10.00 hours (Sveta)  
Wilson/Boster/ at 10.30 hours (Bus)  
Loren Beeb at 11.00 hours (Stutzman)  
Daniel Barton at 15.00 hours (Gramt)

Lunch on your own (reimbursement)

Settle into Soyouz and visit students at Hotel Molodyozhny  
Van leaves front of hotel at 18.00 hours

Dinner at Molodyozhny at 19.00 hours

Tuesday: Breakfast in Hotel

Van leaves front of hotel at 10.00 hours  
Meeting at Land'O Lakes Office - Nathaniel Carin

Lunch in the City

Meeting with Peter Khurbrusko - Moscow State University of Agro-  
Engineering. The Special Challenges of Training Agriculture Teachers in  
Russia.

Dinner in the City Center  
Leave Hotel at 19.00 hours

Wednesday: Work on Reports  
De-Briefing Program

Train Leaves for St. Petersburg at 22.00 hours

Thursday - Friday: St. Petersburg

Saturday: Return from St. Petersburg

Shopping at Ismylava Stadium and Arbat Street

Sunday: Free Day in Moscow (To be Determined)  
Program Evaluation

Monday: Depart Moscow for the USA

# Crimea Agricultural Institute

There was a brief program in Crimea last year and this year's program will focus on the marketing of viticulture crops. Crimean wine was known throughout the Soviet Union for its quality and taste. Russia has now banned the import of Crimean wines into Russia and local vintners are having trouble meeting Western standards for export. This program will work with the head of the viticulture department and will involve professors, students and farm managers. You will work jointly with the other teacher in Crimea to develop an outline for a marketing booklet on fruit and vegetable crops.

## **1) Marketing of Fruits, Vegetables and Wine in the USA**

*This seminar will be a visual tour of how fruits, vegetables and wine are brought from the vineyard to the consumer in the USA.*

## **2) How Farmers Find and Make Connections in the Free Market**

*This seminar will provide information about how farmers under a free market system seek out and establish marketing contacts and agreements. Case studies of different types of marketing arrangements will be shown.*

## **3) Wine Packaging and Processing in the USA**

*The presenter will provide visual examples of how wine products are packaged and processed in the USA and what the standards are for marketing these products.*

## **4) Fruit, Vegetable and Wine Advertising in the USA**

*Advertising is the key to consumer marketing. The presenter will show examples of fruit, vegetable and wine advertising in the USA in all types of situations from printed media to display ideas at market locations.*

## **5) Workshop: Developing Marketing Strategies for Crimean Wine**

*This workshop will take the ideas presented during the week and will discuss methods of organizing a more effective and profitable marketing system for Crimean wine. Ideas such as marketing boards, generic advertising campaigns and direct marketing by farmers to niche markets will be examined.*

# Crimean Agricultural Technicum

There was a brief program at this technicum last year and this year's program will focus on entrepreneurship and the development of a curriculum outline for marketing fruit and vegetable crops. The school has an economics faculty and they wish to develop their school's practice farm into a commercial enterprise that the students can operate. The school has 1000 tons of their own production of fruit and vegetables that they don't know what to do with each year. They need help in developing a plan of when, how and where to sell this production and how to process and store it in order to more effectively market this to the consumer. The school wants to use this as a profit maker for the school and at the same time an educational experience for the students.

## **1) Organization of Agriculture in the USA**

*This presentation will focus on how agriculture in the USA is organized from family farms to corporate units. Topics will include trends, government programs and a presentation of actual farm case studies.*

## **2) Using Leadership Development and Personal Growth to Build Career Skills**

*This seminar will focus on how extra-curricular activities used by student organizations help to develop better career options for students and better employees for industry. The presenter will show how organizations involve teachers and use contests and awards to motivate students to practice what they've learned.*

## **3) Using Leadership Development and Personal Growth to Build Career Skills**

*This seminar will focus on how entrepreneurship is incorporated into the classroom through FFA and other student organization activity and how teachers supervise student business activities at home.*

## **4) The Marketing of Fruit and Vegetable Products in the USA**

*This seminar will provide a visual tour of how fruit and vegetable products are brought from the farm to the consumer's table in the USA. The presenter will discuss family farms and corporate farms in America and show processing plants and distribution mechanisms.*

## **5) Business Planning for Agriculture**

*This seminar will show how farm managers in the USA attract capital for their operations and plan their activities. The presenter will describe government farm programs and the use of computers and electronic information sources to make decisions.*

# Educational Methodology Center

This is the third year of our program at the Educational Methodology Center (EMC) and projects will focus on the development of curriculum in the marketing of meat and dairy products. Additional topics will include adult education and the role to teachers, and computerization of the classroom. The EMC has requested teaching materials and favorite curriculums be brought along. They also wish to address the topic of articulation and how agricultural subjects can be combined into an integrated effort. The major focus of the work activity will be to determine the format, style and outline for the marketing curriculum booklets that will be published at EMC.

Possible mini-seminars with staff at EMC include:

- 1) How teachers lay out a concrete program of integrating agricultural topics.
- 2) Teacher involvement in adult and continuing education.
- 3) Computerization of the classroom and working with the computer staff.
- 4) Standards and techniques for establishing the integration of knowledge and connections of subjects. (Articulation)
- 5) Marketing of Dairy and Meat Products in the USA  
@Yakhromsky State Farm & College

## **Irkutsk State Farm and College/Baikal Wave**

This is the third year of activities in the Irkutsk Region of Siberia. Located on the shores of Lake Baikal, the area is one of the most pristine in Russia and agricultural and industrial development there is causing concern about pollution in the lake. Baikal Wave is a private environmental group that works with farmers in the development of environmentally sustainable techniques from organic production to alternative grazing practices. Work with private farmers will be the main focus of the activity here. Direct market concepts will be explained to a general farm audience and not focus on any specific commodity.

Seminar topics include the following:

### **1) Grazing Options and Grassland Management for Livestock Producers**

*The presenter will present information about how farmers in the USA have used rotation techniques, portable fencing, variety selection and native grasses to boost the productivity of grasslands.*

### **2) The Development of Popular Conservation Tillage Techniques in the USA**

*The presenter will show how conservation tillage techniques for agriculture in the USA have allowed yields to remain constant while reducing soil erosion and saving money. Equipment modifications and management techniques will be demonstrated.*

### **3) Direct Marketing of Agricultural Products in the USA**

*The presenter will show how small private farmers market their products in the USA and how the electronic media is used by farmers to sale livestock over long distances. Case students from meat to vegetables to grain products will be shown. The Cooperative Marketing Movement in the USA will also be described.*

### **4) Teaching Methodologies for Agricultural Entrepreneurship in the USA (Irkutsk State Farm and College)**

*This seminar will focus on how entrepreneurship is incorporated into the classroom through FFA and other student organization activity and how teachers supervise student business activity at home.*

### **5) Articulation of Ag Education in the USA**

*This seminar will explain the agriculture education diagram used by the USA and show how the different levels of education have worked together to coordinate the flow of education from start to finish.*

### **6) Business Planning and Alternative Financing for Private Farmers**

*This seminar will show examples of how private farm managers in the USA attract financing for their operations and plan their activities. The presenter will explain how small farmers use alternative methods to traditional bank financing to get the crop to market and make a living.*

## **Mtensk Agricultural Lyceum - Orel**

This is the first year for the Mytensk Agricultural Lyceum and the program there will be a basic one of explaining agricultural education, agricultural structures in the USA and methodologies of marketing. The Lyceum has faculties in agricultural management and marketing and wants to concentrate on these topics. Curriculum development will take place in the area of agri-business management and what topics and/or curricula's we have in the USA that could be converted and used in Russia.

Seminar Topics Include:

**1) Methodologies for Teaching Agricultural Entrepreneurship in the USA**

*This seminar will focus on how entrepreneurship is incorporated into the classroom through FFA and other student organization activity and how teachers supervise student business activity at home.*

**2) Structure and Organization of American Agriculture**

*This presentation will focus on how agriculture in the USA is organized from family farms to corporate units. Topics will include trends, government programs and a presentation of actual farm case studies.*

**3) Using Leadership Development and Personal Growth to Build Career Skills**

*This seminar will focus on how extra-curricular activities used by student organizations help to develop better career options for students and better employees for industry. The presenter will show how organizations involve teachers and use contests and awards to motivate students to practice what they learn.*

**4) The Marketing of Meat Products in the USA**

*This seminar will provide a visual tour to how meat products are brought from the farm to the consumer's table in the USA. The presenter will discuss family farms and corporate farms in America and show processing plants and distribution mechanisms.*

**5) Business Planning for Agriculture**

*This seminar will show how farm managers in the USA attract capital for their operations and plan their activities. The presenter will describe government farm programs and the use of computers and electronic information sources to make decisions.*

**6) Teaching Agricultural Marketing and Agri-business Management in the USA**

*The presenter will discuss the techniques used to teach agri-marketing and management and outline the curriculum that is used in the USA. Case studies will be used to provide examples of the theories presented.*

# Penza Agricultural Institute

This is the second year of the Farmer to Farmer Program in Penza. The faculties at the Penza Agricultural Institute consist of Agronomy, Economics, Livestock Production and Management. Swine production for meat is popular in the area. Seminars will be the main focus of the activity with technology transfer between the American expert and teachers as the expected outcome. Professors at the college are hoping to gain some ideas on our teaching methodologies and practical experience and ideas from the USA that they can use in the classroom. Curriculum development activities will focus on meat products.

The following seminars have been suggested:

## **1) Methodologies for Teaching Agricultural Entrepreneurship in the USA**

*This seminar will focus on how entrepreneurship is incorporated into the classroom through FFA and other student organization activity and how teachers supervise student business activities at home.*

## **2) Using Leadership Development and Personal Growth to Build Career Skills**

*This seminar will focus on how extra-curricular activities used by student organizations help to develop better career options and provide the workforce with a better prepared employee. The presenter will show how organizations involve teachers and use contests and awards to motivate students to learn more and put into practice what they learn.*

## **3) Teaching Agricultural Marketing and Agri-Business Management in the USA**

*The presenter will discuss the techniques used to teach agri-marketing and management and outline the curriculum that is used in the USA. Case studies will be used to provide examples of the theories presented.*

## **4) Marketing of Livestock and Meat Products in the USA**

*This seminar will provide a visual tour of how meat products are brought from the farm to the consumer's table in the USA. The presenter will discuss family farms and corporate farms in America and show processing plants and distribution mechanisms.*

## **5) Articulation of Agricultural Education in the USA.**

*This seminar will explain the agriculture education diagram used by the USA and show how the different levels of education have worked together to coordinate the flow of education from start to finish.*

## **6) Business Planning for Agriculture**

*This seminar will show examples of how farm managers in the USA attract capital for their operations and plan their activities. The presenter will describe the use of Government Farm Programs and use of computers and electronic information sources.*

## **Samara Agro Academy**

This is the first year for the Samara Agro Academy and the program there will be a basic one of explaining agricultural education, agricultural structures in the USA and methodologies of marketing. The Academy has faculties in agricultural management and marketing and wants to concentrate on these topics. Curriculum development will take place in the area of grain marketing. Information about agricultural cooperatives should be developed to show how farmers grouped together to sell their products. Any innovative ideas that farmers have used to market grain on a small scale should also be shown.

Seminar Topics Include:

**1) Methodologies for Teaching Agricultural Entrepreneurship in the USA**

*This seminar will focus on how entrepreneurship is incorporated into the classroom through FFA and other student organization activity and how teachers supervise student business activity at home.*

**2) Structure and Organization of American Agriculture**

*This presentation will focus on how agriculture in the USA is organized from family farms to corporate units. Topics will include trends, government programs and a presentation of actual farm case studies.*

**3) Using Leadership Development and Personal Growth to Build Career Skills**

*This seminar will focus on how extra-curricular activities used by student organizations help to develop better career options for students and better employees for industry. The presenter will show how organizations involve teachers and use contests and awards to motivate students to practice what they learn.*

**4) The Marketing of Grain Products in the USA**

*This seminar will provide a visual tour to how grain products are brought from the farm to the consumer's table in the USA. The presenter will discuss family farms and corporate farms in America and show mills, elevators, processing ideas and distribution mechanisms.*

**5) Business Planning for Agriculture**

*This seminar will show how farm managers in the USA attract capital for their operations and plan their activities. The presenter will describe government farm programs and the use of computers and electronic information sources to make decisions.*

**6) Teaching Agricultural Marketing and Agri-business Management in the USA**

*The presenter will discuss the techniques used to teach agri-marketing and management and outline the curriculum that is used in the USA. Case studies will be used to provide examples of the theories presented.*

# Yakhromsky State Farm and College

Yakhromsky is the first school to host FFA programs in the former Soviet Union and is in its third year of hosting volunteers in the Farmer to Farmer Program. The focus of this year's activities will be to conduct an interest survey of students, teachers, administrators and agricultural leaders about the needs for youth in agriculture. Recent attempts at organizing rural youth organizations have failed in Russia. The objective of this visit is to develop recommendations and a program of activities for a model Russian rural youth organization. The recommendations should include how the organization should be structured and base the organization's goals and objectives on the findings of the interviews. Your report will provide a basis for the development of a rural youth organization that is designed for and linked to the agricultural technicians.

Seminar Topics include:

## **1) Articulation of Agricultural Education in the USA**

*This seminar will explain the agriculture education diagram used by the USA and show how the different levels of education have worked together to coordinate the flow of education from start to finish.*

## **2) Methodologies for Teaching Agricultural Entrepreneurship in the USA**

*This seminar will focus on how entrepreneurship is incorporated into the classroom through FFA and other student organization activity and how teachers supervise student business activities at home.*

## **3) Using Leadership Development and Personal Growth to Build Career Skills**

*This seminar will focus on how extra-curricular activities used by student organizations help to develop better career options and provide the with a better prepared employee. The presenter will show how organizations involve teachers and use contests and awards to motivate students to learn more and put into practice what they learn.*

# Tver Agricultural Institute

This is the first year for the Farmer to Farmer Program in Tver. The Agricultural Institute there is very active in livestock production, computer technology and programming and international agricultural marketing and management. The program in Tver will focus on business planning, marketing and the use of computer software to assist in the management of agriculture. Seminars will be targeted at 4th and 5th year students in the International Marketing Program, but will be open to all students and professors to attend. Curriculum development will focus on the use of computers in the education process.

Seminar Topics will include the following:

**1) Organization of Agriculture in the USA**

*This presentation will focus on how agriculture in the USA is organized from family farms to corporate units. Topics will include trends, government programs and a presentation of actual farm case studies.*

**2) Computer Information Systems for Agriculture - Part I**

*This seminar will be a joint seminar with Mr. Dale McNeeley of Kirkwood Community College in Iowa. Ideas and concepts of how farmers use computer software will be described and demonstrated.*

**3) Computer Information Systems for Agriculture - Part II**

*This seminar will provide an opportunity to demonstrate actual programs and show case studies of how computer software is used by farmers to make management and marketing decisions in the USA.*

**4) Using Leadership Development and Personal Growth to Build Career Skills**

*This seminar will focus on how extra-curricular activities used by student organizations help to develop better career options for students and better employees for industry. The presenter will show how organizations involve teachers and use contests and awards to motivate students to practice what they've learned.*

**5) Using Leadership Development and Personal Growth to Build Career Skills**

*This seminar will focus on how entrepreneurship is incorporated into the classroom through FFA and other student organization activity and how teachers supervise student business activities at home.*

**6) The Marketing of Meat Products in the USA**

*This seminar will provide a visual tour of how meat products are brought from the farm to the consumer's table in the USA. The presenter will discuss family farms and corporate farms in America and show processing plants and distribution mechanisms.*

**7) Business Planning for Agriculture**

*This seminar will show how farm managers in the USA attract capital for their operations and plan their activities. The presenter will describe government farm programs and the use of computers and electronic information sources to make decisions.*

**ATTACHMENT C**  
**ZUBER FINAL REPORT**

**ZESCO, INC.**

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**EQUIPMENT SPECIFICATIONS AND PURCHASING  
FOR THE RUSSIAN FARMER FOUNDATION  
AUGUST 10 - 29, 1995**

**SUBMITTED BY**

**CHAUNCEY E. ZUBER**

TO  
LAND O LAKES  
4001 LEXINGTON AVE. NORTH  
ARDEN HILLS, MN. 55126

FROM  
CHAUNCEY ZUBER  
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612-920-5998

SEPTEMBER 14, 1995

This report consists of information obtained from a trip to Russia, August 11, 1995 thru August 29, 1995. The arrival date was August 11, 1995. A report detailing the Russian Farmers Foundation Butter Fund loan program had been sent to my hotel, for my information. On August 13, 1995, at the Moscow office of the Land O'Lakes Corporation, I was briefed by Nathaniel Carin, William Bullock and Timothy Tobey. They answered my questions, explained the Butter Fund program, and my assignment in Russia. Another volunteer, Judy Klusman, and I discussed meat plant details since she was going to a farm that was interested in a meat processing plant.

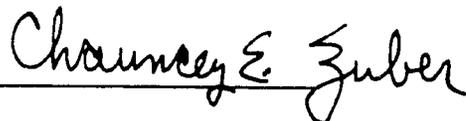
Vladimir Banin, my interpreter, and I then met with Sergei Tarasov of The Russian Farmers Federation for the remainder of the week. August 18, 1995 thru August 21, 1995 was spent at Esfir Farm reviewing their meat processing plant. August 22 thru August 18 was spent in Moscow with Mr. Tarasov. August 17 & 18 we met with Mr. and Mrs. Fink, volunteers also interested in meat plants and the financing available to the farmers.

August 19, 1995 we visited the office of The Russian Farmers Federation in St Petersburg. On August 21 we attended the Russian Farmers Federation's Fair in St Petersburg.

The staff of Land O'Lakes was very helpful and detailed when briefing me on my assignment. During the entire time I was accompanied by Vladimir Banin, my interpreter, his service was outstanding. We were able to get every where in Moscow or St Petersburg quickly by the Metro System. His knowledge of English was excellent, as was his verbal communication.

If there are any questions concerning this report please contact me.

BY;



CHAUNCEY E .ZUBER

48

**EQUIPMENT SPECIFICATIONS AND PURCHASING  
FOR THE RUSSIAN FARMER FOUNDATION  
AUGUST 10 - 29, 1995**

This assignment was to aid the Russian Farmer Federation in establishing a competitive bidding system, for the purchase of equipment for distribution to qualified farmers. Equipment for dairy, bakery, meat processing, grain milling and other agricultural processing will be offered, NIS manufactures will be given priority.

On August 11, 1995 a meeting of the Board of Trustees for the Russian Farmer Federation was attended to acquaint this consultant with the operation of the Federation.

Ms. Judy Klusman, a volunteer going to a farm interested in a meat plant, was briefed on various meat plant options.

A meeting was held, in the Land O'Lakes office, with Mr. and Mrs. Byron Finks. Volunteers who were going to a farm where a proposed meat plant is to be built. Sergei Tarasov also briefed Mr. and Mrs. Finks, at his office, concerning the "Butter Fund" program and requirements. A joint meeting was attended with Irina Kudryavtseva, Deputy for the American - Russian Joint Commission in Agribusiness to discuss their loan program.

The major portion of the assignment was spent with Sergei Tarasov, the Executive Secretary for the Federation. Equipment standards, quality and methods of equipment purchasing were discussed.

A excursion, to Esfir Farm, Boncharovo, Toropets district, Tver Region, was included to observe a meat processing plant. Mr Tukalevsky, the farmer, had purchased the meat processing plant and could not produce the expected production of 500 kilos per day. He also had concerns on the quality of his equipment.

The Russian Farmer World Fair in St. Petersburg was attended to access the various equipment available. Literature was gathered on bakeries, refrigeration, meat plants, etc. This information, delivered to the Land O'Lakes Office, will be organized as the first step in building a equipment file for the Farmers Federation.

PROCEDURE

Sergei Tarasov and Chan Zuber agreed upon the following objectives:

- I Equipment file organization
- II Foundation Staffing for Equipment File
- III Analyze Esfir Farm Project
- IV Prepare Agreement form to be used with farmers

I. EQUIPMENT FILE ORGANIZATION

The first step is to accumulate equipment literature. This can be done by interviewing farmers in the organization, contacting manufactures direct, attending trade shows, advertising in trade journals, newspapers, etc. Farmers in the organization, who have processing plants, are a good source of information. They will know the strong and weak points of the equipment they have purchased. When they built their processing plants, they probably were approached by the competitors of the equipment they selected. Those farmers may be aware of alternate sources for their equipment. In Russia, there seems to be a overlap on equipment suppliers. Manufactures for meat plant equipment also manufacture dairy, bakery and other food equipment. A letter to manufacturers in one industry may produce information on equipment for another industry. Manufacturers, that supplied your members, may be familiar with equipment manufactures in other industries, these names would then be available for your files.

Trade shows are traditionally for a industries, general audiences or general manufactures. There are many meat, dairy, bakery shows where exhibitors display their systems. General audience shows, such as the Farmers Fair in St. Petersburg, will have exhibitors from many industries. Manufacturing shows for metal working, refrigeration, sheet metal, electric components, etc., are also a source for information on suppliers. These firms may not make food equipment, but may have customers who manufacture food equipment.

PAGE 3

Listings for trade shows are obtained from organizations responsible for tourism or business development. Facilities that hold trade shows have a lists of future events which will produce literature and names for the file.

Magazines, trade journals and newspapers are also a source. Since Russia is developing a industrial - consumer manufacturing base, there may not be trade journals available at this time. European and United States Magazines and Trade Journals will have manufactures of equipment from some NIS countries. Newspapers report coming industrial exchanges and trade shows and print industrial advertising.

In the equipment file, the following information can be kept on each supplier, usually on a sheet of paper or in card file:

1. Manufacturers name
2. Manufacturers address
3. Manufacturers Telephone & Fax Numbers
4. Names of employees, owners and other contacts at their plant.
5. Equipment information: production capacity, utility requirements, model number etc.

A second sheet should be used for positive or negative customer comments, installation reports, start up reports, any other pertinent information.

When a list of potential suppliers is obtained, compose a form letter briefly describing your program. Also, request literature, drawings specifications, prices and any other information they have available for your files. This letter will be sent to the suppliers. Keep a list of the date, address and supplier's name. You may receive information from these letters, if not, follow up with a telephone call.

### INFORMATION SYSTEMS

Information must be available in literature files and on drawings or flow charts. Files offer detailed specifications on each piece of equipment while drawings help explain how the individual pieces of equipment are organized to provide a efficient plant.

Files can be organized using the name of the manufacturer, type of equipment or industry. A standard filing cabinet or card system can be used for storing information. Computerized files would allow technicians to cross reference various pieces of equipment. The computer file is not necessary, but is an option. Since manufacturers in Russia tend to make all the equipment for a system, it may be more efficient to use the manufacturers name for the file titles. In the U.S.A., to build a complete plant, equipment must be purchased from many suppliers, therefore the type of equipment: Smokehouses, Grinders, Saws, Sausage Stuffers, etc., is more practical. Each file has the information in alphabetical order by manufacturer. When researching a project, literature and prices for equipment that meet the specifications for that project are pulled.

Frequently purchased equipment are put into a sectional sales binder. This system uses a series of three ring binders attached to a main frame. Literature is easily reviewed and selected for projects. This system is easily updated. Sections can be removed from the system and used in a different work area. Separate three ring binders can be used to store this information if a binding system is not available.

Many of the farmers realize they could increase their profits by adding a processing plant, but are not familiar with the details of the processing plant operation. Drawings or flow charts, of processing plants with different production levels should be available. In these drawings, or flow charts, the rooms and the location of equipment in each room are illustrated. Equipment on the drawing will be identified by a number or letter. A chart, on the drawing, lists the numbers or letters with the corresponding equipment.

PAGE 5

This floor plan illustrates, to the farmer, the necessary steps and equipment required for the proposed plant. One chart will serve many production levels since the process steps are the same. The only difference is the size of the equipment used for each production level.

A three ring binder is used for storing information on the equipment required. A section of the three ring binder is used for each room. The sections contain the equipment options for that room. The Farmer can look at the drawing and three ring binder and determine the type and size equipment required for his processing plant. Equipment from different manufactures will be in the book to compare equipment. There should be at least two identical three ring binders, one stays in the office at all times the others can be taken to the job sites. All books must be updated frequently.

To properly utilize the filing system and the drawings, in the bidding process, as much information about the processing plant must be available to the equipment suppliers. The application questionnaire from the Farmer Federation contains most of the questions required to determine the appropriate size processing plant. Information from this form and from the farmer can be compiled and sent to the interested suppliers. When all suppliers have the same information they can submit accurate bids to The Farmers Federation. After a few projects have been completed, the Federation office will be have a list of reliable suppliers.

#### PERSONNEL RECOMMENDATIONS

The goal of the Russian Farmers Federation is to be able to offer Federation members two or three options for purchasing agricultural processing plants. These plants will be designed for the specified production level and provide the highest quality equipment for the investment. To obtain this goal, the Federation is assembling an equipment file to aid the farmers equipment selection.

SV

The task involves; assembling the necessary equipment files, updating files, supervising processing plant design, advising farmers in equipment selection, supervising equipment installation and training for the farmer's processing plant operations. Twenty projects are estimated for the first 12 months. These will involve different processing types: Meat, Dairy, Bakery, Grain Milling, etc. Individuals involved must be mechanically inclined, capable of reading and understanding drawings, flow charts, equipment specification, and be able to communicate with farmers and equipment suppliers.

The exhibitors of processing equipment at the Russian Farmers Fair utilized modular construction and supplied equipment for a variety of food products. The Russian Farmers Federation will not have to design processing plants. Their duties will involve determining a realistic production goal for the farmer, provide the farmer with a selection of equipment suppliers, then supervise the project construction and training. This is my recommendation for the individuals and their qualifications:

**STAFF LEADER**

- I Mechanical Engineer or Mechanical ability
- II Familiar with electricity and electrical terminology
- III Ability to read and understand drawings and specifications
- IV Communications skills

**TECHNICAL ASSISTANT**

[May be added in the future]

- I Understand Mechanical systems
- II Familiar with electricity and electrical terminology
- III Ability to read and understand drawings and specifications
- IV Organizational skills
- V Communication skills

TECHNICAL SECRETARY

- I Mechanical understanding
- II Computer and or typing
- III Organizational Skills
- IV Communication skills

\*\* JOB DESCRIPTIONS \*\*

STAFF LEADER

The first goal of the staff leader will be to setup the filing system for the department. A form letter must be written to send to the prospective suppliers. Telephone calls are used to follow up on the letters. A relationship will be built with the suppliers so when questions are present, they can be solved. Both sides must know they can rely on the other to mutually work out solutions.

Farmer's applications will be analyzed to determine the production level desired. An interview with the farmer either in person or by telephone will also be necessary. The files will be checked to determine which suppliers have the right equipment or can supply the entire plant. The farmer will be given the names, or the federation can contact the suppliers to bid on the project. The Staff Leader will examine the bids drawings and specifications to be sure they are adequate for the production level [It will take experience to be able to ascertain the right equipment]. After the purchase order has been issued, delivery dates are checked and the Staff Leader confirms the site is ready for delivery.

Upon delivery the Staff Leader monitors the project to make sure it is on schedule. Upon completion of the construction, the trainers are sent to the site to assist in the startup. Training will probably be done by the equipment supplier. The function of the Staff Leader is to schedule the trainers at the right time. After training the entire project will be accessed to determine any adjustments for the next project. Follow up communications should be made after a couple of months to assure the plant is running according to plan.

54

### TECHNICAL ASSISTANT

As the work load increases or if the travel demands are too extensive, a Technical Assistant may be hired to share the workload or to be assigned specific projects. The skills involved in this position are essentially the same as the Staff Leader. This position does not have responsibility for all the projects only the ones assigned by the Staff Leader.

### TECHNICAL SECRETARY

The position performs the clerical functions of the office: maintains equipment files, correspondence, schedule appointments, sends out application forms, checks submitted forms and performs all other office functions. The mechanical knowledge must be adequate to enable the Secretary to take calls from the field and look up the answer, if possible, or to relay the message to the Leader or Assistant. The answer may have to be relayed to the field by the Secretary. All letters, government forms, application forms, requests for updated pricing, etc. are the responsibility of this position. The equipment file and the three ring binders will be updated periodically. The Secretary keeps the office operating efficiently.

### CONCLUSION

The largest challenge for this project is that there seems to be no complete list of equipment suppliers in Russia or the NIS. If there is no list available, it will take longer to build the equipment file. The Federation, by interviewing the farmers with existing processing plants, will have a list of manufactures. There seems to be some discontentment on the part of the farmers concerning past projects. When interviewing the farmers, the object should be to investigate and solve the problems, not to fix blame! Most challenges in construction situations are caused by misinformation or misunderstandings. If farmers have received losses not entirely their fault, they should have some form of compensation. The goal is to give the farmer the highest quality equipment for his investment. Once satisfied these farmers will be good references and a source for training.

5

PAGE 9

The list from the farmers and the literature collected at the Russian Farmers Fair will be a starting point for the equipment file. The Federation will contact the manufactures to explain the new program. It is in the manufactures best interest to cooperate with the Federation to secure future orders. The assumption should be that the Manufacture and the Federation can both accomplish their goals by cooperation. The Manufacture wants additional orders, the Federation wants processing plants that operate efficiently.

Since this is a on going project, the time that is required to complete it, is difficult to project. The equipment list should be constantly changing as new manufacturing sources are found. Within 6 months the equipment file should be complete, employees should be in place and operating efficiently. It may be beneficial to secure the services of a consultant to help out at one or two month intervals to answer questions, help with organizational matters, or aid in the negotiations with manufactures or farmers. This individual must have experience in equipment purchasing and construction. It should be the same individual for continuity. When this person gets to Moscow, work would begin immediately, with no introductory period being required.

During the meetings with Sergei Tarasov, it was suggested I propose a form that could be used as a contract between the farmer and The Farmers Federation. This requires knowledge of the Russian legal system and can be done more effectively by a Russian Lawyer.

Following is the GOAL OUTLINE, which lists the suggested steps to complete this project.

GOAL OUTLINE

- I Hire or designate a Staff Leader.
- II Hire or designate a Technical Secretary
- III Review the existing projects and obtain literature on the equipment
- IV Begin equipment file using information picked up at the Russian Farmers Fair  
[Literature should be at office of]  
[Land O'Lakes in Moscow]
- V Interview farmers who have completed projects to get their suggestions and try to find alternative Manufactures. Add new sources to the file.  
[Adjustments due to misunderstandings]  
[should be negotiated at this time]
- VI Contact manufactures who already have equipment on farms, but have not installed, or are in the process of installation of the equipment. Explain the new program, review any past problems and negotiate a solution to prevent reoccurrence of those problems. [It is important in this step not to affix blame but to understand what actually happened, most problems arise from misunderstandings!]
- VII Send out applications and start new projects.

51

**FARM ESFIR  
VILLAGE - BONCHAROVO  
DISTRICT - TOROPETS  
REGION - TVER  
172854 RUSSIA  
BACKGROUND INFORMATION**

This information was obtained during a conversation with Harry Binder, the father of Esfir Farms economist. Harry was visiting from his home in Germany. Harry was born in Azerbaijan around the turn of the century in a successful German - Russian community. In 1941 Stalin moved the members of the German community to Kazakhstan. They were put on a train and not compensated for their homes or other possessions. Some of the men were sent to labor camps. The German-Russian community flourished in Kazakhstan until the breakup of the Soviet Union. Since Russian was the official language of the U.S.S.R., the German-Russians did not learn the native language. Upon the breakup of the U.S.S.R., the natives of Kazakhstan made their language [Kazakhstan] as the official language. The locals also took the jobs and apartments of the Europeans. One man, who was building a house for the Esfir's economist, had 5 months left before he qualified for his 20 year miners pension. He was replaced by a Kazakh and spent 5 months without income. Currently he is living 30 kilometers from Esfir and makes his living as a contractor in that city.

Some of the German community have been relocated to Germany. Harry and some of the relatives of the members of Esfir Farm took advantage of this option.

The members of the Esfir Farm do not have rural backgrounds but came from suburbs around Celinograd. Community members have a plan to rebuild the farm as time and money permit. They all work together to accomplish this goal.

Yuri Tukalevsky, a radar technician and religious leader, was given the option of taking over the farm. I do not know the terms. He is the leader of Esfir Farm. Mary Tukalevsky, his sister, is his deputy. She operates the farm when he is gone. She also oversees the accounting system for the farm with the help of their economist, Mr. Binder, Harry Binders son. The office is well organized. Currently they are purchasing a computer to help with their accounting.

PAGE 12

Yuri and his sister, Mary, moved to the farm and fixed up the existing school house. An L-shaped building with many rooms, as a communal house. Windows, doors, partitions and wood burning stoves had to be installed before others could join them. The wood burning stoves, built into the walls, impressed the local inhabitants due to their efficiency. In the two years they have been on the farm, other homes have been constructed for new arrivals. The goal is for every one to have their own home.

The farm had been operated under the Soviet system but had been apparently abandoned. Rusted hulks of various pieces of farm machinery lie where they broke down for the previous operators. All the buildings were in disrepair, and filled with decaying wood, rusting metal and or stagnate water. The use of chemicals had driven small animals and birds from the area. Fish were no longer in the river. Since Esfir doesn't use chemicals, birds, small animals, and fish are returning to the area.

When the community arrived, wild boars, bears, elk [moose], and other wild life could be seen near the farm buildings. Since people have moved back on the farm the large animals have gone further into the woods. The farmers are concerned about their sheep being attacked by wolves this winter.

Despite the city background of the people, many improvements have been made to the farm. Abandoned barns have been reclaimed and are being used for livestock. One barn was converted, with the help of Lauren Raschein, a Land O'Lakes volunteer, into a hog farrowing house. Another has been partially rebuilt and is being used to house their new wood working equipment. They will, with the help of a Swedish machine, turn their local wood into high quality wood trim.

A section of a dairy barn has been made into a killfloor to produce meat for their new meat processing plant. Despite the March 1995 opening, and some cooler problems they are able to produce high quality sausage and smoked products. There are some adjustments required before they can reach their desired production levels.

The livestock I observed were white hogs, dairy type cows with spring calves, sheep, chickens and some goats. All the livestock were in excellent condition and appeared to be from good breeding stock.

69

**MEAT PROCESSING PLANT  
ESFIR FARM  
BONCHAROVO VILLAGE  
TOROPETS DISTRICT  
TVER REGION  
RUSSIA**

Esfir Farm purchased a meat processing plant which was to produce 500kg per shift. Esfir farm employees are able to produce 200kg per shift. A trip was made to Esfir to determine the difference between the expected production and the actual production. The over all design of the building was good. The documents supplied with the building were complete and illustrated a great deal of detail. From my conversations with Russians, regarding plant construction, it must be difficult to obtain approval to convert an existing building to a food processing plant. Approvals for utilities and sanitation are detailed and time consuming. Since the modular system is already approved by the required authorities, it can be installed and ready to operate much faster. Under these circumstances buildings such as these are a good investment. Esfir's meat plant consists of:

1. Killfloor - Cooler
2. Freezer
3. Processing Room with Cooler
4. Sausage making room
5. Smoke Room
6. Office - Welfare Room

**KILLFLOOR - COOLER**

The Killfloor is in a remodeled end of an existing dairy barn. Animals are stunned in a steel pen and hoisted for bleeding. The ceiling height is not high enough to permit large cattle carcasses to be raised so the head is off the floor. There is a I beam spanning the killfloor under the hoist. Carcasses touch this I beam as they hang. If this I beam has no structural purpose it should be removed to avoid contamination of the carcass. Blood from the animals is allowed to flow into the floor drain and into the septic tank. Blood is difficult to breakdown, consequently, it will plug up the sewage system eventually. As much blood as possible should be caught and disposed with the other inedible products, this will save eventual sewage problems.

After skinning and evisceration, carcasses are cut into pieces and carried to the cooling room adjacent to the killfloor. This room has no refrigeration, meat is stored over night, then carried to the processing building where they are frozen or made into meat products. The Killfloor and the Cooler are in good repair and sanitary. Esfir realizes the need for refrigeration in the cooler. Efficiency could be increased by adding a meat rail from the killfloor hoist to the cooler and from the cooler to the processing building. Larger pieces of meat could be transported with less chance of contamination. The Killfloor - Cooler is approximately 30 meters from the processing room. Carrying pieces of meat outside exposes the meat to possible contamination and the workers to injury, especially in the winter.

#### PROCESSING BUILDING

The five sections of the processing building are constructed of rust resistant steel, galvanized I believe, floors are stainless steel. Each section has a function and is complete with the equipment or items to accomplish that function. The sections are attached in the order that these functions are performed. Outside appearance could be improved by better finishing, wood was exposed at some joints. Platforms which are on the outside of building serve as loading docks and employee access from the outside of the building. It is now necessary to go up and down stairways to go from one section of the platform to the next outside platform. One platform extending from one end of the building to the opposite end would be more efficient.

The building is located on a cement foundation approximately 1 meter high. The center of this foundation is hollow and is designed to house sewer, water, and other utilities. Electric heating elements are located in the floors of the building. These were, apparently, to keep the building warm as well as the utility lines underneath from freezing. Unfortunately electric usage was four times the amount listed in the literature. The local electric source would not supply that much power due to electrical rationaing. So the pipes froze and were replaced with larger lines with enough fall to eliminate the freezing problem. Space and drain holes are provided for two toilets. These have not been installed perhaps due to the freezing sewer lines.

PAGE 15

To provide heat, Electric heaters were installed on the inside walls of the building. However one heater was placed in front of the smokehouse restricting the space needed for proper smoketruck removal. Other wall mounted heaters restrict space in the already tight space.

The inside passage between the modular sections is accomplished with doorways. These should be wider, the door between the sausage preparation room and Smoke Room is not wide enough to allow a loaded smoke truck to pass through the door.

The stainless steel floors are very slippery. Good housekeeping on the part of the employees of Esfir helps but the floors are slippery. Inside joints of the building are not perfect and in the cooler sunlight can be observed through a crack in the joint. Insulation in the freezer and cooler could be improved. According to the sales brochure, this system is designed to last 10 years. With proper maintenance this is possible. The advantage of this system is it allows someone to get into production in the minimum amount of time due to the simplicity of design and Government approvals.

#### FREEZER

When the Freezer unit is operating, the outside of the box is cool to the touch. This indicates loss of temperature caused by insufficient insulation. Esfir has been experiencing service problems with the refrigeration unit which may be caused by the units overworking due to the this loss of temperature. A cavity wall could be added and filled with sawdust to improve the insulation. When building a cavity wall, a plastic sheet or some other impervious material is built into the outside partition. This prevents moisture entering the cavity and turning to ice. The warm wall will always have moisture formation.

62

### PROCESSING ROOM AND COOLER

A partition divides this section into a processing area and a cooler. The processing area has a stainless steel table, stainless steel sink and scale. A small water heater is installed, but will not supply adequate hot water for cleaning. A larger boiler should be installed as a hot water source. The 3 meter x 3 meter cooler has a stainless steel bar to hang meat and space for meat storage. This is the room where sunlight can be seen through a joint in the wall.

### SAUSAGE MAKING ROOM

Five pieces of equipment are in this room: Dicer, Cutter, Grinder, Mixer and Vacuum Sausage Stuffer. The layout, although tight, allows two or three employees to manufacture 500kg of sausage. Equipment layout provides a good product flow. The Cutter capacity is too small for the desired volume. The Cutter will only process a 10kg batch. Esfir's batch size is 200kg which requires too many Cutter cycles. This is time consuming and interferes with product consistency. The Mixer was being unloaded into a small pan, then dumped into the Sausage Stuffer, requiring many trips. The Mixer should be emptied into one of the stainless steel meat trucks. The meat truck could then be rolled to the Stuffer, product then loaded into the Stuffer with a clean shovel.

### SMOKE ROOM

There were two 200kg Smokehouses in this room, with room for one or two more, if there had not been a portable cooler in the room. The wall heaters, installed after construction, limited smokehouse access. Had the cooler not been in the room, and if more than two smokehouse trucks were available, there would have been room to allow products to dry. These smokehouses are capable of producing the 500kg daily if there were two additional smoketrucks. Without the additional Smoketrucks, production stops when the smoketrucks are full and in the Smokehouse. Smoketrucks should be filled in the Sausage Making room. Since the doorway is too narrow to permit this, stuffed product must be carried to the Smoke Room. A cooler should be adjacent to the Smoke Room so finished product could be rapidly cooled.

OFFICE - WELFARE ROOM

This room has employee lockers, lunch table, and is partitioned for either one or two toilets, and one shower. Toilets were not hooked up to the sewer line and not being used at time. This area is designed to give the employees a sanitary place to enter and leave the processing area. At Esfir, it also provided a retail sales room.

BUILDING AND EQUIPMENT REVIEW

BUILDING

Mfg: Alektrouralmontazh  
Yekaterinburg  
Kuznechnaya 92 Room 506  
Telephone: 3432 55 72 40 & 55 70 80

EQUIPMENT

Grinder, Mixer, Cutter, & Sausage Stuffer

Mfg: Priboy  
Region: Rostov City: Taganrog

GRINDER

Plate & Knife 82mm  
Production 300kg Per Hour  
Electric 1.5 kw/m

This grinder was sized correctly for the operation. The breaking plate cutting edges have broken. This can be caused by improper heat treating, or tightening the grinder head too tight to compensate for dull plates and knives. Plate and knife should always be kept sharp and used as a set because they "wear in". Force feeding the grinder especially with frozen or product with bone chips may cause this problem.

CUTTER

Bowl Cap	20kg
Volume	.05 Cubic Meter
Production Cap.	150kg per hour
Cycle	3 min. to 12 min.
Electric	8.05 kw/m

The Cutter capacity is too small for this production. The bowl of the Cutter will hold 10kg. If more product is put into the bowl product is pulled into the vacuum pump. When doing 200kg batches this requires too many fillings. Keeping the product consistent is a challenge, as is maintaining the proper temperature. When the cutter heats up a product above 10 C, the fat and lean do not bind properly, they separate in the smokehouse. The casing will be loose around the product, fat will "leak out" of the product. The manufacturer should be contacted to see if they will trade in this unit on a larger Cutter. If not, a larger cutter should be purchased from another source!

MIXER

Production Cap.	350kg per hour
Volume	.1 Cubic Meter
Cycle	3 min. to 5 min.
Rotation	47 rpm
Electric	2.2 kw/m

Mixer holds the 200kg batches and mixes efficiently. The handle for the unloading chute must be held during operation or the door will open, there must be a broken spring. The Mixer is designed to dump into a stainless steel meat truck which can be rolled to the Sausage Stuffer. A sanitary shovel can then be used to fill the Stuffer Hopper.

SMOKEHOUSE

Mfg	MAPP Moscow
Volume	1.95 cubic meters
Load Cap	200 [+/- 50kg]
Max Temp	120 C
Electric	48.5 kw/m
Controls	Micro Processor

The two smokehouses each have one smoketruck. To accomplish the desired production one or possibly two additional trucks should be acquired. The controls are adequate although the location of the smoke line, between the Smokehouse and the computer, heat up the panel. One reason smoke lines are run next to control panels is to assure the controls remain dry. Moisture is the main reason for control failure. Some of the insulation on the wires has melted, indicating contact with the hot wall.

ESFIR FARM CONCLUSION

When sizing buildings and equipment, in the meat industry, the products produced control production. The equipment and building purchased by Esfir will produce 500kg per day of some products, but not the products produced by Esfir. To accomplish the desired production, Esfir will have to:

1. Purchase a larger cutter or change their process
2. Purchase additional Smoke trucks
3. Add a cooler on the side of the building

The Cutter has already been discussed. The small capacity will not allow efficient manufacture of 200kg batches. Mixing the product after cutting will help to make uniform batches, but if the cutter heats up one small batch that meat will be spread throughout the 200kg batch by the mixer. The overheated product will cause casing separation after smoking, lean and fat will not bind properly, giving the sausage a soft texture or fat will separate from the lean. This style cutter was adapted from German and French manufactures. Both German and French manufactures make larger capacity machines which will not take any more floor space than the current cutter. The Russian manufacturer may manufacture the same models. If that is the case the present cutter may be able to be traded for a larger machine. There will be a charge for this but not as large an investment as a new cutter.

The Smokehouses each have 1 smoketruck. In this plant there should be 1 or 2 additional trucks per Smokehouse. One truck will be in the smokehouse, 1 truck loaded ready to be put into the Smokehouse and the third truck in the cooler for cooling and packaging. Product flows through the plant instead of stopping at the Smokehouse.

The meat used in one product is cut into chunks, mixed with a ripening compound then stored in a cooler for 3 days. A cooler must large enough for 3 days production. There is no cooler large enough in the present plant. When a product is removed from the Smokehouse it should be placed in a cooler. This cooling permits the lean and fat to bind. The casing will be filled and tight. Sausage is cooled over night then packaged for sale.

PAGE 21

A cooler, extending from the processing section to the office end [See Sketch], should be added to the side of the present plant. This cooler will allow Esfir to improve product quality and increase production.

The meat plant purchased by Esfir, with the added cooler will be able to produce the required volume. The quality of the plant and equipment is satisfactory. Finishing may not be the highest quality but the equipment will produce quality products, with the exception of the Cutter. From the prices I was quoted at the Russian Farmers Federation Fair the price paid by Esfir seems in line. However, a foreigner with an interpreter, may not get the lowest quotations. When the Farmers Federation submits bid requests in Russian, they may get better prices.

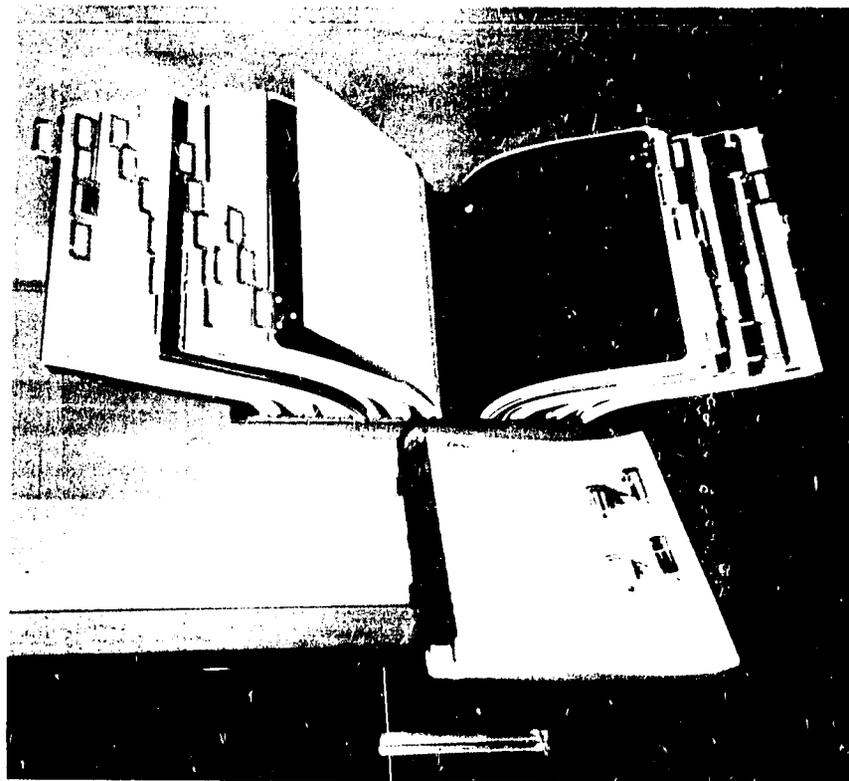
A meeting with Alek representatives should be arranged to discuss the Cutter and possible refrigeration questions. From the literature they produced, they appear to be a reliable company. They may be willing to help Esfir. In any case, Esfir did not receive a plant that would produce the products they require to become profitable. Esfir should receive some compensation for their increased expense. It is not my position to negotiate a solution. Perhaps additional loans to build the cooler at a reduced rate or an extension on the payment period. Once Esfir is operating successfully they will be a good reference for future processing plants.

Plan I illustrates a possible expansion plan for Esfir farms. The actual expansion will be dependent upon the overall requirements of the Farm. Esfir Farm can use the existing plant as a base for a larger plant. The first step will be the cooler on the side of the building. They will have to decide the final dimensions dependant upon what they need. It would seem to me a minimum dimension would be six meters wide and running the length of the last four sections. The new cooler should be constructed with the floor matching the existing plant floor. The Cooler should be constructed so the floor could be replaced with a ground level floor in the future.

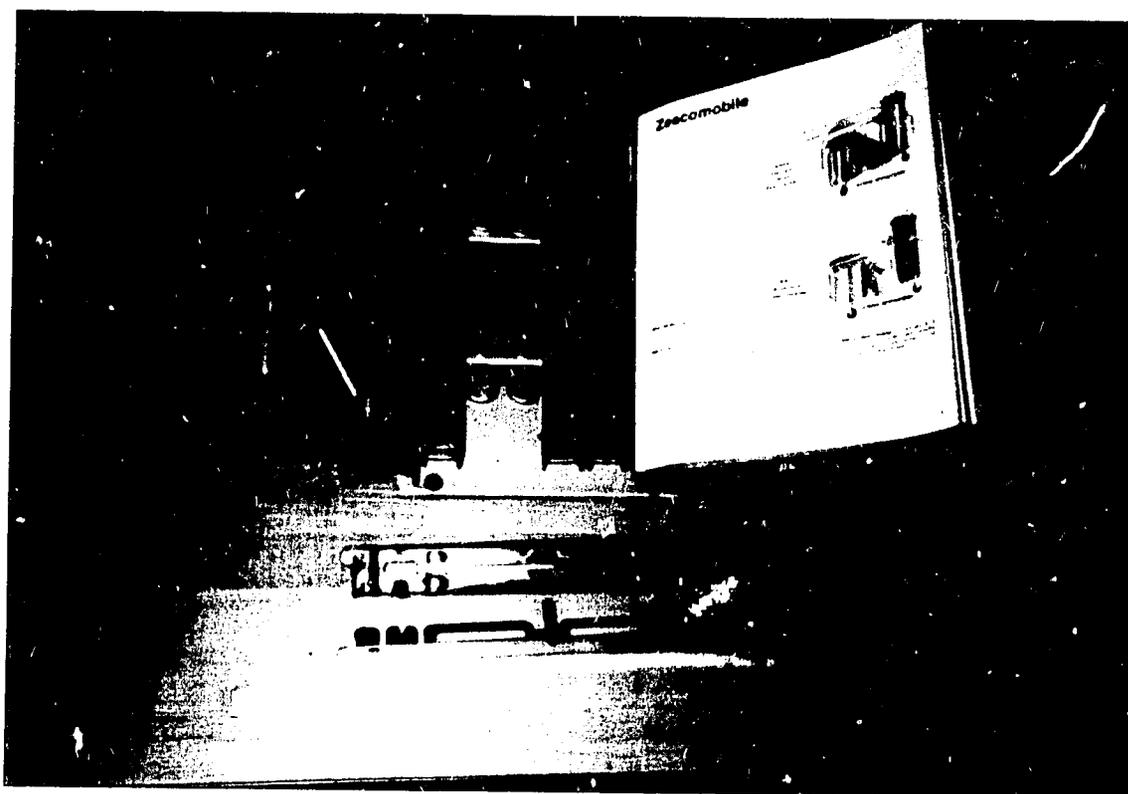
68

The second expansion would be a Killfloor-Cooler addition. The Killfloor should be at least seven meters by seven meters and high enough to hang a beef so the head is off the floor. Six meters would do this. The cooler will have rails high enough to hang half a beef carcass, four meters. The cooler will have a door going into the existing freezer to enable the plant to freeze pieces of meat. If frozen meat is a large part of the plants volume, a freezer maybe added onto the plant adjacent to the Killfloor - Cooler. A second door will lead to the cutting room through the ripening room. The Killfloor - Cooler will be at a lower elevation than the rest of the plant at this stage. However, as the plant is enlarged, then it would be constructed on ground level. Other rooms would be added as the plant production increases. The existing plant could be used as office space, toilet & shower, dry storage etc. It could also be sold to another farm if it was in good condition.

The Esfir farm situation illustrates why The Russian Farmers Federation must organize a equipment file and supervise food processing plant construction. When a farmer decides to add a processing plant, he may not be familiar with the process involved, and may not know what questions to ask. The supplier may not have enough information about the plant, and sell the farmer a plant that will not meet his needs. The Farmers Federation, after supervising a few projects, will know what information is important in the farmers decision, and be able to advise the farmer so he can make an informed decision. The Farmers Federation can supply the farmer with a number of suppliers who have performed satisfactorily in the past. Farmers purchase large equipment in the normal course of business. They can interview suppliers and determine the one who they prefer as a supplier. If the farmer picks the supplier, and the Federation buys the equipment and supervises the project, there should be no misunderstandings.



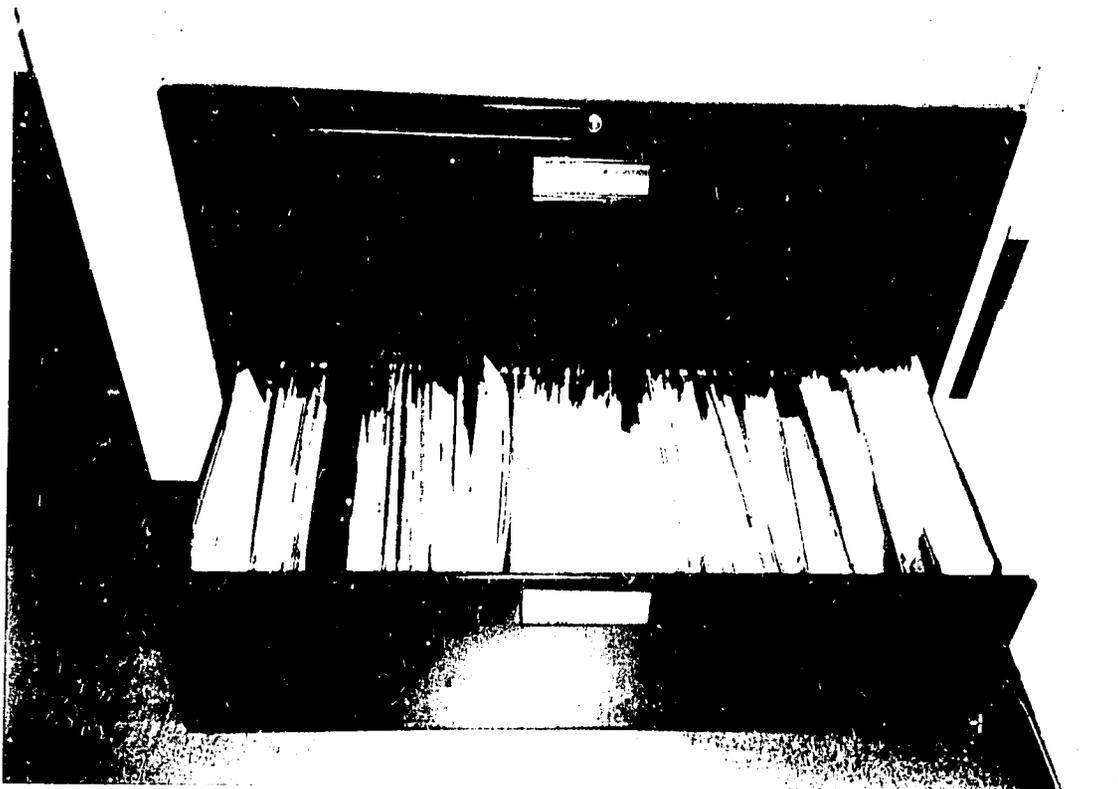
ITEM I SECTIONAL SALES BINDER  
[ FULL ]



ITEM II SECTIONAL SALES BINDER  
[ DISASSEMBLED ]

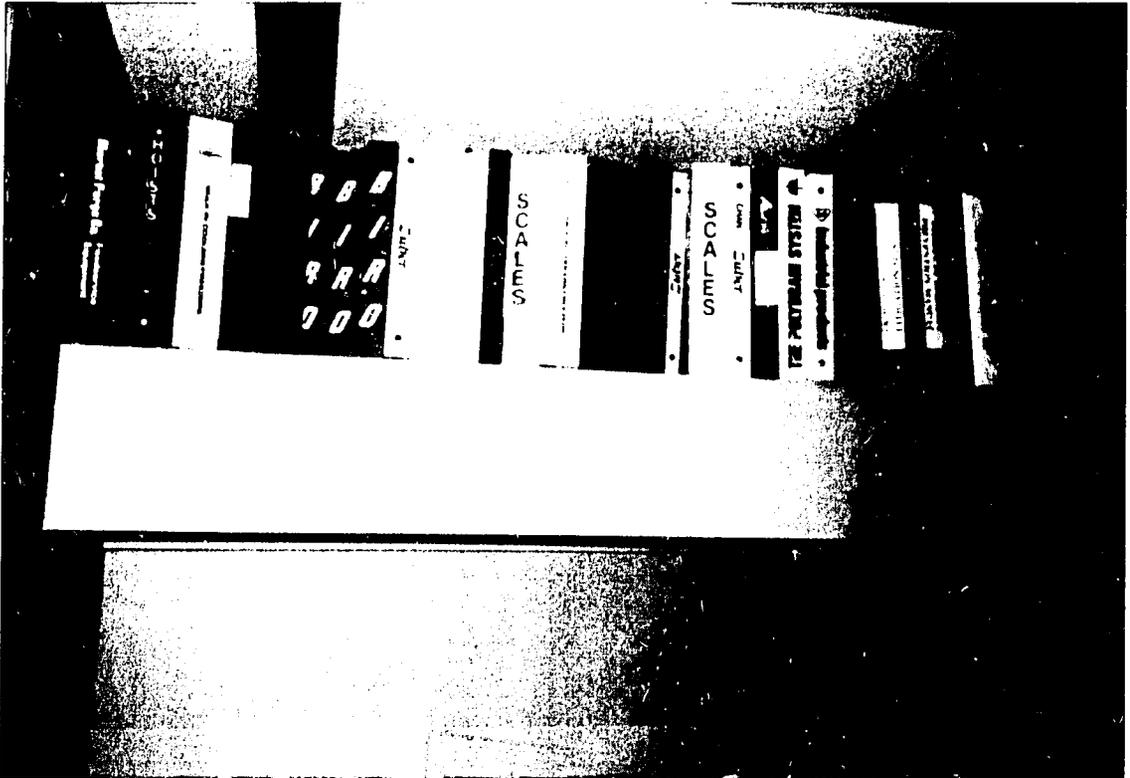


ITEM III THREE RING BINDER



ITEM IV DRAWER FILE

11



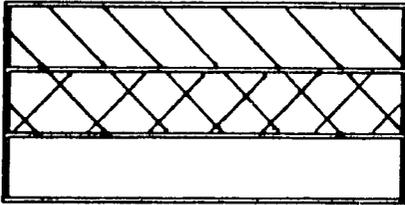
ITEM V SHELF CATALOGUE



ITEM VI LITERATURE STORAGE

72\*

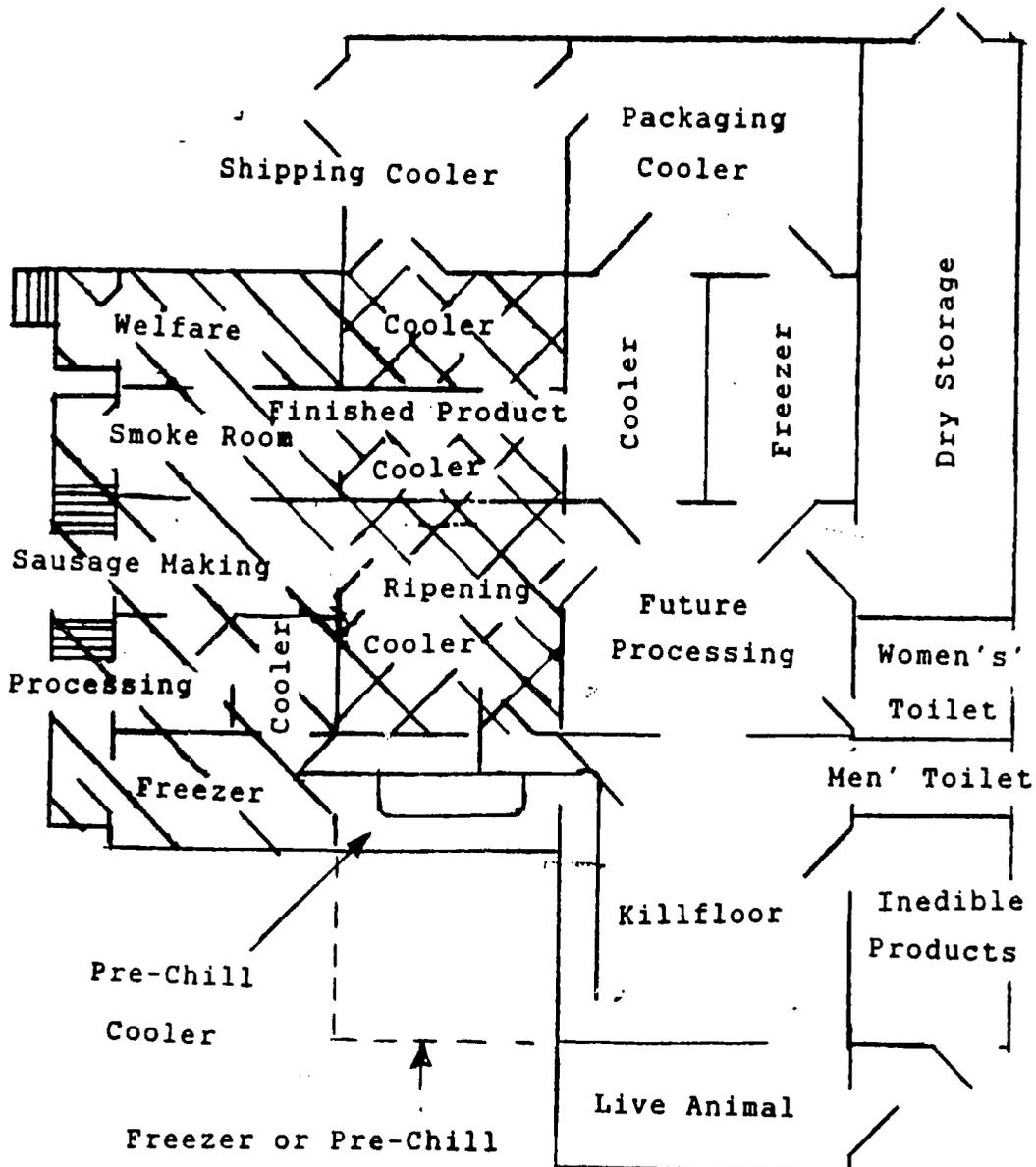
FARM ESFIR PROPOSED EXPANSION



EXISTING MODULAR PLANT

PROPOSED COOLER EXPANSION

FUTURE EXPANSION



13

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# **FEDERAL PROCEDURES FOR SLAUGHTERING IN SMALL PLANTS**

Prepared By: E. F. ZUBER

**E-ZUBER** Engineering & Sales  
800 West 79th Street, Minneapolis, Minnesota 55420

Federal procedures for slaughtering in small plants are not hard or uncomfortable to use and need not slow up production after the butcher understands federal slaughtering procedures and becomes accustomed to using them. MANAGEMENT, BUTCHER AND INSPECTOR MUST COOPERATE. I will talk more about this later. Have adequate facilities, use rule of reason, with only one object in mind - to produce wholesome meat.

I define a small plant as one that slaughters up to two beef per hour. An operation killing two beef per hour, 16 head a day, slaughtering one, two or even three days per week will include 75 to 80% of the locker and small processing plants in the United States. I arrived at these percentages by my personal survey of locker plants since 1946 and the hundreds of plants I have visited from coast to coast and from Canada to Mexico since passage of the Wholesome Meat Act of 1967. I have also visited plants in Canada, Mexico and Europe observing their inspection procedures and requirements. The U.S. Meat production and inspection program is far superior to any I've seen. Canada's program comes close to being equal to ours.

Allow me to dwell shortly on basic plant design to help simplify slaughtering operations.

#### I. HANDLING OF ANIMALS BEFORE SLAUGHTERING

You are well aware of the importance of handling live animals before slaughter. The least excitement of the animal is very, very important. Our experience has taught us that elevating the holding pen floor one foot - four inches above the killfloor will simplify unloading the animal. Keeping the runway level into the knocking pen (no ramps) is the easiest method to bring the animal

into slaughter position with least excitement. We also found animals placed in a well ventilated, enclosed, dark, holding pen, without windows, will remain relaxed. We find it is important to corral the animals in narrow runways and do not place strange animals in the same pen. When placing one animal behind another in a narrow runway, only 30" wide, you need not have a gate between the strange animals. The space is so narrow, even the small animal cannot turn around but is wide enough to accept the large bulls. Of course, you will need a small pen, 7'-6" x 5' placed in one corner of the holding pen capable of being well lighted where the animal can move around for ante-mortem inspection, and another 5' x 5' pen adjacent to it for condemned animals. In ours, the gate arrangements are quite simple and we can move and remove any animal in and through the pen for further observation or release. We can also use all the pens for holding animals for slaughtering after the ante-mortem inspection is completed. All holding fences and gates are made of steel and hot-dipped galvanized because painted fence, regardless of type of material used, will rust in a very short time and has to be scraped and repainted often.

An enclosed holding pen for the small slaughterer, well ventilated, with tile walls, non-pervious ceiling, concrete floor, well located barn type floor drains, steel doors and galvanized fencing can be readily cleaned and sanitized IN ALL TYPES OF WEATHER and will always have the NEW look. The holding pen should be sized to accommodate animals for one day's slaughtering. Avoid holding animals over night.

## II. STUNNING THE ANIMAL.

Federal Inspection requires the use of a mechanical loaded stunning device for stunning the animal and will condemn the head meat of the animal if stunned with a bullet-loaded gun. If you use a captive bolt stunning device that penetrates the skull, the brain cannot be used. The mushroom type stunner is a little harder to use because of the recoil and is not as positive but it will not penetrate the skull and the brain tissue can be saved.

We use a knocking pen with a trap-loaded floor, elevated one foot, four inches above the killfloor. As I mentioned before, it is important to keep this floor level with the holding pen floor. We developed and incorporated a patentable head restraining device in our knocking pen. The opening in this device is large enough to allow the animal to see daylight on the other side, thus making it much easier to get it to go into a knocking pen as animals have a habit of running toward daylight.

The unit will automatically lock the animal's head in position and hold it there for easy stunning, and will release the head when the trap door is sprung. We also included a SAFETY CHAIN. We lock the chain around the animal's head after stunning. Thus, if by any chance, the animal becomes mobile after being released from the knocking pen, the chain will hold the animal. SAFETY FACTOR. This eliminates the need for a separate, fenced, dry landing area in a small plant.

The knocking pen should be placed in line with the slaughtering pattern preferably not in the corner. In the 332 copies

of floor plan drawings we have on file that my son, Chan, and I have made since 1949, I believe I can find a drawing with a knocking pen located in the killfloor, out of the killfloor, in the corner, out of the corner and maybe if we dig deep enough, we might find one placed on the top of the roof. I assure you, we have made a few mistakes - but we have also learned from experience.

Yes! there are conditions when we need to place the knocking pen in the corner. Sometimes we are limited for space and also have interference from existing structures, alleys, lot lines, elevation problems, etc. The animal turns completely over as it rolls out of the pen, its hind legs pointed directly into the open area for fast and E-Z shackling. This eliminates the dangerous job of going into the pen with the stunned animal to find the tail, start pulling and jerking until you can free the legs for shackling. We use a fast 31 fpm traveling hoist for raising the animal. When the knocking pen and slaughtering pattern start from the center of the killfloor instead of the corner, there is ample room for the butcher to work around the animal. He also has room to move away from the animal in the event the animal should start reflex kicking. The animal should be kept completely dry. No washing down after bleeding. The water dripping from the wet hide could contaminate the carcass.

### III. REMOVING THE ANIMAL'S HEAD WHILE BLEEDING

Federal Guide 191 requires a curb around the bleeding area. This regulation is ideal for large plants, particularly where they have ample room and are bleeding more than one animal at a time. Each operation has its own station and the next station

is sixteen feet away. In our floor plans, we pitch the floor one-half inch to the root into a standard floor drain and use a funnel type blood trap in the bleeding area replacing the need for a curb. The butcher has no problem in moving around in the entire bleeding area while performing the head operation and needs not worry about stumbling over the curb.

In bleeding the animal into an E-Z Portable Blood Trap, which has a twelve gallon sanitary tub on casters, and a 48" diameter polyethylene funnel, we are able to trap practically all the blood. Our State Department of Agriculture has made a thorough test checking to see how much blood they could catch using this system. They were able to catch practically all the blood and only an insignificant amount of blood would be washed down the sanitary sewer. VERY IMPORTANT. The butcher can work around the blood trap while skinning out the head and catch practically all the blood converting a messy job into a fairly sanitary operation.

Considering the fact there is a market for inedible blood to feed mills, dog food manufacturers and mink feeders, saving blood could mean extra profit. I have visited plants where the feed mills supplied the barrels and paid 4¢ to 6¢ a pound for blood. Item worth considering! More important, you can assure the City Fathers that you are not loading the sanitary sewer system by having excess blood washed down the drain. It's common knowledge among the sanitary sewer people that the blood from one animal will retard the sewage system as much as five families of four. Most sanitary sewers are overloaded. You can understand if all the blood from even a small slaughtering

plant were washed down the drain, it would add a substantial amount to the sanitary sewer load.

For edible blood, you make one cut in the skin, sterilize the knife then make a separate cut into the artery and vein. Then you have to have a tube that goes directly from the blood vessel to a clean container.

It is important when removing the head to pull it way out away from the carcass for the final cut. If the cut is made while the head is hanging straight down, some rumen contents may run down and contaminate the head.

The head is placed on a removable swivel hook in the head washing stall which has smooth tile walls and a drain. This confines splattering and is E-Z to clean. In a small plant, we prefer this over a head washing booth because it requires less space and is much easier to clean.

We like to use two hoses - one small hose with an 8" nozzle to flush out the nostrils and a larger hose with more volume and pressure for flushing the outside of the head and going into the mouth cavity. By using a swivel hook, the head may be raised while washing the bottom, thus confining the splatter in the stall. The butcher can turn the head and trim off the bits of hide or contamination. Now the head is ready to place on the head loop for inspection.

Our head loop is attached to a work-up table which has a sanitary cutting board for working up the head and other edible offal products. The inspector looks over the head for contamination and pieces of hide and looks in the eye for any possibility of cancer eye and completes the head inspection

87

with the exception of the tongue. The butcher clips the hyoid bone with a metal eviscerating shear, cuts the attachment along the cheek, drops the tongue, and flushes it thoroughly prior to inspection.

In the slaughtering area, we pitched the floor 1/4" to the foot into a gutter type drainage system. Our reason for using a gutter type drain in preference to an area drain in the slaughtering area is because in a small plant, the slaughtering operation moves in a close sequence and we are able to keep a more even and drier floor in our working area. Using a 12 foot gutter under our slaughtering area, the waste product has a very short distance to travel into the gutter along our slaughtering line. In the event, the drain in the gutter should become plugged, the gutter will hold a sufficient amount of water so the butcher does not have to stop and clean the gutter before he can finish that particular part of the operation.

#### IV. DEHIDING THE ANIMAL

After the head is removed, we tie the hide securely around the neck with string which keeps the meat from touching the floor if the butcher accidentally lowers the animal more than is required while placing it on the skinning cradle. Saves trimming time and loss of meat later on. The butcher can transfer the carcass easily to the skinning cradle.

#### V. REMOVING THE SHANKS

The important thing to remember is to keep the end of the shank covered. Whether you leave the hide attached or whether you take it off the shank makes no difference, just so the shank end doesn't become contaminated.

## VI. SKINNING CARCASS

In opening the mid-line of the abdominal wall, the knife should be pointing outwards so it is not cutting down, taking hair and dirt into the carcass. In the skinning operation, keep the hide deflected away from the carcass at all times so that the open hide doesn't get onto the meat.

Now tie off the esophagus after separating it from the trachea so the rumen contents won't run out when the carcass is hoisted.

## VII. GAMBRELING THE CARCASS

We hang the gambrel on the hoist. Insert the trolley hook into the shank. Place the trolley on the gambrel hooks and raise the carcass to half-hoist position and split open the tail. This is one of the most contaminated areas and great care should be taken here. Hands should be washed and the knife washed and sterilized before rumping and dropping the hide. Tie off the bung so that when this is dropped down with the rest of the viscera, there will not be fecal contamination on the other viscera.

Raise the carcass for eviscerating.

## VIII. PROCESSING THE INEDIBLE OFFAL

The stainless steel E-Z-M-T offal cart is in the lowered position for dropping the eviscera into the pan. When removing the liver, place your fingers in the portal vein to prevent the liver from sliding out of your hand while removing and transferring it to the inspection tray. Open perirenal fat to expose the kidney and take it out of the capsule. The carcass is now ready for rail inspection.



Separate the esophagus from the pluck so that the heart and lungs can be removed and also placed on the inspection table.

We prefer using a separate table with a removable stainless steel pan for offal instead of a pan attached to the offal cart. In a small plant operation when we are only concerned with the offal from one animal, placing the table away from the slaughtering area frees the offal cart and the inspector can work in a more convenient area.

After removing the edible offal, the butcher spreads out the small intestines for inspection and the inspector completes the inspection of the viscera then the cart is rolled into the inedible offal cooler. Here we use the standard washdown hose. By merely placing the end of the spray nozzle on the rubber tipped port of our elevating device and pressing the spray nozzle trigger, the water pressure elevates the tray load of offal high enough so we can roll the cart and extend the end of the stainless steel pan of offal over a standard 55 gallon barrel.

The butcher may now remove the omental fat, open the paunch and empty its contents into the barrel as many rendering companies will not pick up the paunch contents so they have to dispose of these separately. Simply roll the cart to another barrel, lift the back of the pan slightly and the remains of the inedible offal will slide into the barrel ready to be denatured and removed from the premises. The denaturing must be done after each animal, in layers, to assure the entire contents of barrel is denatured.

The stainless steel tray on the offal cart is hinged at the front end. The back end of the pan can be lifted to the upright position. In this position, all parts of the cart including the frame assembly are exposed and accessible for E-Z cleaning and sanitizing. No hidden pockets for contaminated water to set and ferment.

#### IX. OFFAL ROOM

The offal room should be well lighted and have smooth seamless walls and metal clad seamless doors, with a floor drain for easy cleaning. We located the offal truck washing station in an enclosed area outside the cooler in this particular plant. Existing conditions prevented us from putting this in the cooler. We have provided for cold, hot and 180° water lines.

#### X. LANDING THE EVISCERATED CARCASS

You recall we inserted the trolley hook into the shank and placed the trolley on the gambrel hook before eviscerating. We set the stop switch on the hoist so that when we raise the carcass to the point where the trolley wheels are above the trackage rail, it will stop the hoist automatically. We push the carcass on the traveling hoist until the trolley strikes the lander guide - lower the hoist - the lander will guide the trolleys on the rail. Lowering slightly more will free the gambrel hooks and the carcass will be on the rail ready for splitting. All this is easily accomplished from the floor, no need for hooks, poles or elevated platform.

We provide 180° water for sterilizing the splitting saw. This doesn't have to be sterilized after each animal unless you run into an abscess, cut through a grub or something else. Then the saw must be sterilized before you cut into the next animal.

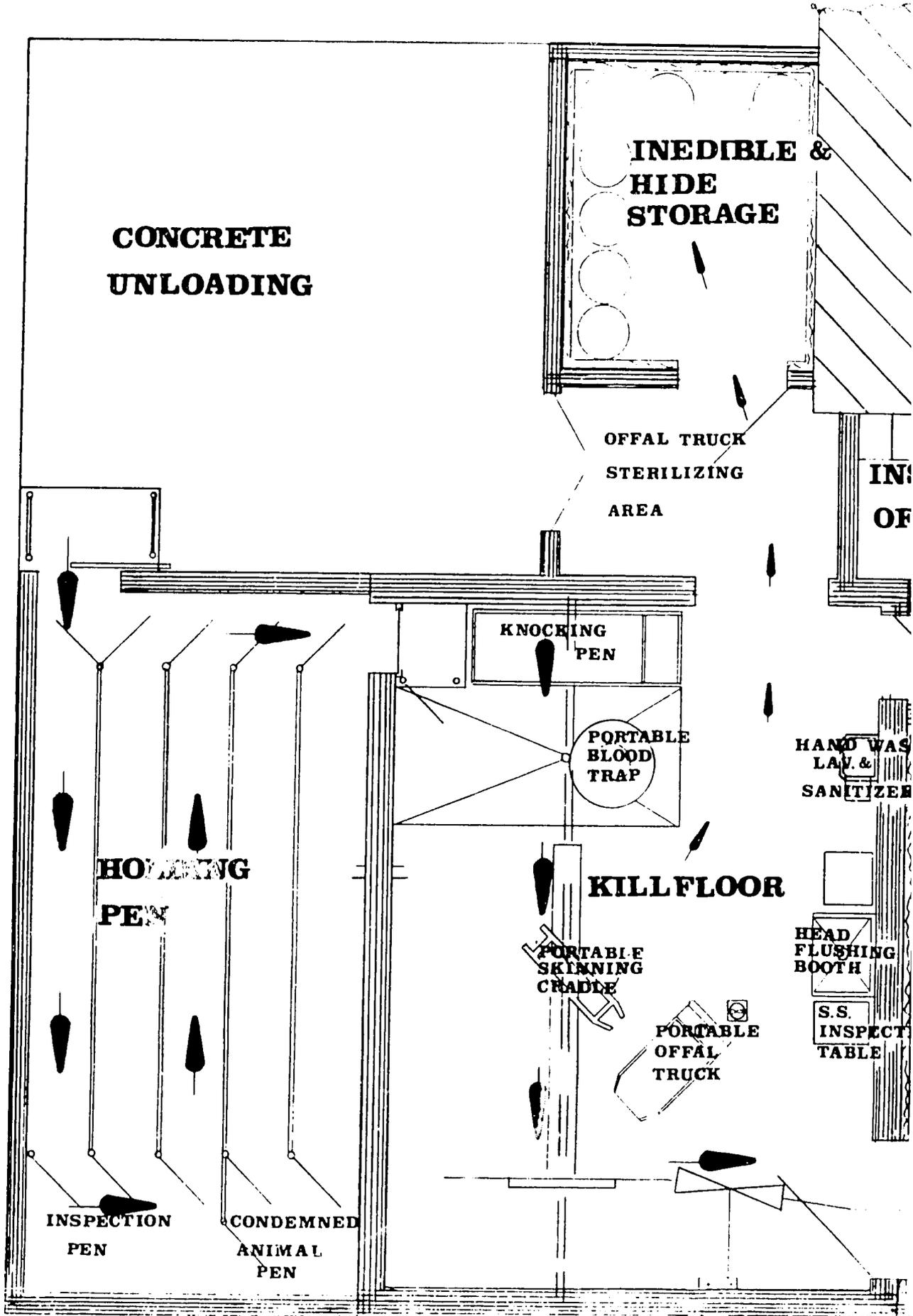
#### XI. WASHING AND SHROUDING

The carcass is rolled into the corner for washing to confine splattering. We use a small portable two-step platform when splitting and washing the carcass which enables us to wash the carcass from the top down. Keeping the nozzle pointed down avoids splattering the walls above the tile finish. When spraying against a concrete wall, regardless of the type of finish, the fungus will eventually grow on the wall and you can expect trouble from then on. An ounce of prevention is worth a pound of cure! Your carcass is now ready for final inspection, stamping, weighing, shrouding and rolling into the prechill room. Shrouds must be laundered and the pins sterilized after each use.

#### XII. COOLERS

The prechill cooler, holding pen, and the inedible offal room should be designed to accommodate the maximum production for one day's kill. In a complete processing operation only (no wholesale carcasses), the aging cooler should be large enough to hold two to three weeks' beef kill at minimum to give you sufficient time for aging.

The preferable prechill cooler design is long and narrow - wide enough for two rails and long enough to accommodate one day's kill. The carcasses are rolled in one end and out the



**CONCRETE  
UNLOADING**

**INEDIBLE &  
HIDE  
STORAGE**

**OFFAL TRUCK  
STERILIZING  
AREA**

**KNOCKING  
PEN**

**PORTABLE  
BLOOD  
TRAP**

**HOLDING  
PEN**

**KILL FLOOR**

**PORTABLE  
SKINNING  
CRADLE**

**PORTABLE  
OFFAL  
TRUCK**

**HAND WAS  
LAV. &  
SANITIZER**

**HEAD  
FLUSHING  
BOOTH**

**S.S. INSPECT  
TABLE**

**INSPECTION  
PEN**

**CONDEMNED  
ANIMAL  
PEN**

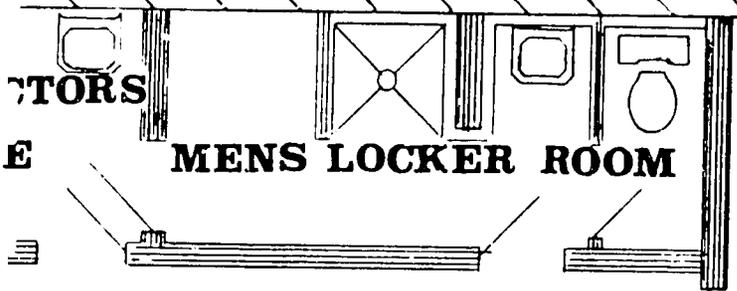
**INS  
OF**

EXISTING SUPERMARKET

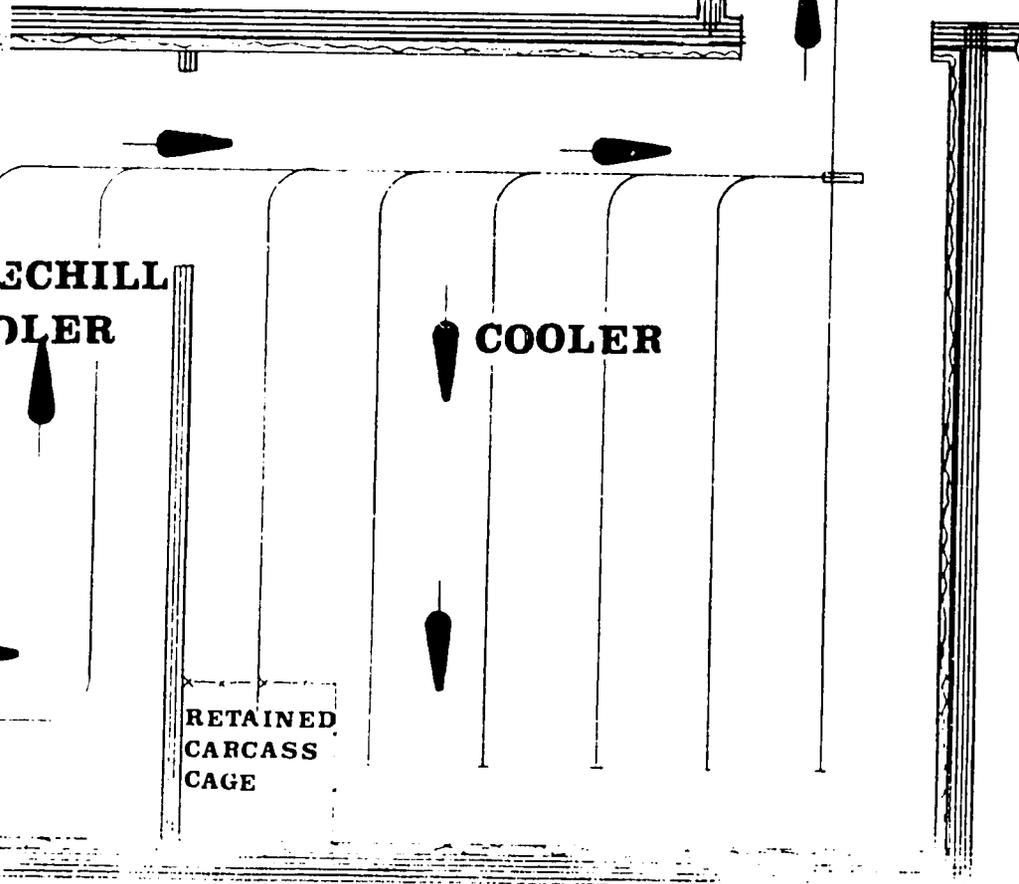
# PRODUCT FLOW

INEDIBLE PRODUCTS

ANIMAL & EDIBLE PRODUCTS



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98

other. It is important in cooler design to have smooth seamless walls, metal clad seamless doors and a drain in the floor for easy washup and cleaning. It is important to use fluorescent lights to assure proper lighting.

In our meat rail fabrication, we are using very light galvanized I beams. These are extruded for the house trailer and mobile home frames and are favorably priced because of the volume produced. The entire rail structure is designed to be supported by four posts - eliminating a network of rods and braces that require cleaning. We hot-dip galvanized the entire substructural assembly and used galvanized hangers and switches. Again there is no painting or maintenance in the coolers except for wiping and oiling the meat rails periodically.

In this particular plant, it was necessary to quarter the carcass in the cooler and transfer it from the eleven foot - two inch rail to an existing seven foot - two inch rail in the supermarket. To perform this operation, we are using the E-Z Off Carcass Dropper. This transfer is accomplished real E-Z. Merely roll the side of beef on the carcass dropper and place a forequarter trolley on the low rail, place the hooks in the forequarter of the carcass and split using a Wellsaw to cut the bone. Roll the forequarter away and release the brake on the carcass dropper and lower the hind quarter enough to insert a forequarter hook into the shank and place trolley on

the low rail. Release the brake and the hind quarter will transfer from the carcass dropper to the low rail. Remove the forequarter hook from the chain and it will return to its original position ready for the next operation. This can be done in less than one minute. The inspected product is now ready for the market.

A film was shown at this point illustrating Federal Procedure for Slaughtering in Small Plants.

# **FEDERAL PROCEDURES FOR SLAUGHTERING IN SMALL PLANTS**

**Produced by**

**E. F. ZUBER ENGINEERING CO.**

**Minneapolis, Minnesota**

**Filmed With The Cooperation of  
The Texas State Department Of Health**

**A. B. Rich, D. V. M., M. P. H., Director  
Division of Veterinary Public Health**

**James R. Weedon, D. V. M.,  
Region V Veterinarian**

**Jim D. Burris, Meat Inspector, Lay I**

- 92 -

**Technical Assistance:**

**From the U. S. D. A.:**

**Foy V. McCasland, D. V. M.  
Federal-State Cooperation Officer  
State of Texas**

**From the University of Minnesota:**

**J. A. Libby, D. V. M.  
College of Veterinary Medicine**

**Slaughtering Demonstration By:**

**Jerry D. Campbell**

**Through The Courtesy Of**

**Haley's Food Locker  
Crowley, Texas**

**Filmed At**

**Fisher's Grocery and Market  
Muenster, Texas**

**Plant Layout and Design:**

**Bob P. Bowlin, Bowlin Engineering  
Fort Worth, Texas**

**Consulting Engineer:**

**Chan Zuber, Zuber Engineering Co.  
Minneapolis, Minnesota**

## S U M M A R Y

In this film you saw an example of an excellent slaughtering operation: there was ample room to work, equipment was easy to use--not cumbersome, and work flowed smoothly from one operation to the next. Yet, everything was done in compliance with Federal Slaughtering Procedures. With efficient plant layout and proper equipment the butcher, Jerry Campbell, did a beautiful job of butchering. Because he is accustomed to using the Federal Procedures, he made it easy to understand that they are not uncomfortable to use and need not slow up production.

We have come a long way since the passage of the Wholesome Meat Act of 1967. About eight years ago we helped convert a small plant for Federal Inspection. Before the conversion they were slaughtering two beef or four hogs per man hour. After the conversion, the kill floor was cluttered with the only USDA approved equipment available: bulky head flushing cabinet, six-loop head inspection truck, head working and trimming table, beef paunch truck, beef paunch table, heavy duty truck for hanging liver and other edible offal, elevated platform, shrouding platform, etc. The hog scalding and dehairer was removed to provide space for all this additional equipment. Clean-up time took twice as long and production dropped to 1½ animals per hour. After operating a few months they found they could not compete and Federal Inspection was dropped.

This is not meant as a criticism or condemnation of Handbook 191; but the heavy, cumbersome equipment specified in it was never designed or intended for use in a small plant. Federal slaughtering procedures are workable with the cooperation between management, the butcher, and the inspector. This is a vital part of a successful program.

On one of my visits to a small plant undergoing Federal Inspection, at the end of a very trying day, the inspector asked that the inedible offal be denatured. This was the last straw for the manager and he fired back, "What for? Why?" "We never had to do this. . .What is it for?" Understandably, he had been under tremendous strain all day. But wouldn't it have been more diplomatic if the manager had asked the inspector, "What should we use, Inspector? Where can we get it?"

Of course management is concerned about changes in procedures and equipment, and the costs involved. However, the equipment and facilities used in this plant required by the USDA cost less than a Ford LTD! You may have the car for only three or four years--using it just to ride around in--but think how long your plant will last.

Many of the problems arising from efforts to meet Federal Inspection standards are due to misunderstanding and misinformation. Certainly, the small plant operator must understand what the USDA wants; but the architects, contractors, and equipment manufacturers



must also understand what is required, and why, if they are to be useful in giving the operator a plant he can work with.

I welcome the USDA specifications for small plants; they are going to help us. Now the contractor will have to follow your drawings and specifications. In the last 25 years I've had lots of problems with contractors, who are not familiar with the procedures. Once I was in a new plant when my men placed a trolley on the "I" beam and hooked the hoist on the trolley. The trolley began to roll toward the knocking pen! I said, "What went wrong here, Henry?" He replied, "The contractor told me I shouldn't build a flat roof--you need a little pitch, so the water can run off."

We learned by experience to place the "I" beam for the traveling hoist in the building, so it can also support the roof load. Instead of using a 24 foot span, you can use an 11 foot and an 13 foot which is more economical. But what good is this experience if the contractor comes along and makes changes without taking into consideration all the functions of the design?

In another plant, I made an on the job inspection and found the sliding door from the holding pen to the kill floor placed in the holding pen wall instead of in the kill floor. I asked the owner why. He told me that the contractor said, "You don't want that sliding door on the nice tile wall--it spoils the look of

the wall." I told the owner, "Next winter when it is below zero and your holding pen is full of cattle, the cold and moisture will freeze that door shut. Have the contractor come open it for you!"

The architect must also understand the why and wherefore of plant operations, if he is to proceed sensibly. Yes, the architect can read books, study slaughtering, and then go design a plant; but will it work? One time I was called in after the architect had most of the drawings completed. Noting that he had specified only a 14 foot ceiling, I asked him, "How are you going to hoist the animal high enough for bleeding? You need a minimum of 16 feet in the clear." He responded by saying, "I can't raise the ceiling; it would spoil the whole design of the building." I never convinced him that he would have to change it.

In converting an existing operation for Federal Inspection, the USDA publication, "Federal Facilities Requirements for Small Existing Meat Plants", is a great help. Study it, use it, and get your architect to use it!

At one time in Dr. Keller's office at the USDA , I was getting approval for a floor plan. Another group there for the same purpose had their architect with them. Dr. Keller questioned some of the locations and distances on their plant. The architect remarked, "I obtained the information from your Handbook 191 on page 38." Twice Dr. Keller advised the architect that Handbook 191 was not

97

published for small operations, and that some of the specifications are not feasible for them. Dr. Keller referred him to the federal bulletin on small plants saying that this booklet would be most appropriate and helpful. Dr. Keller stated that we are only concerned with conforming to regulations in the Federal Register and producing wholesome meat.

I have seen beautiful complete sets of architectural drawings and specifications for small plants. I know the fees for these drawings, 8% of cost for the building, would be more than the cost of all the facilities required to slaughter under Federal Inspection in small plants. It will save you money on the architect's fee if you obtain Federal approval of your floor plan; before you take the drawing to the architect. All that is required to obtain USDA approval on your floor plan is to follow the simple procedures in Handbook 191 on Page 2. I am reminded of the time an operator and I took our drawings to the architect. After he studied it and we answered questions, the architect said, "John, I don't know how to charge you; a great deal of our study and work is completed."

You will also save time in getting approval of your drawings through proper study and application of the USDA booklet, "Federal Facilities Requirements for Small Existing Meat Plants". I have submitted our floor plans and specifications in person at the USDA and had them approved with an establishment number issued in

less than 30 minutes.

Several times the USDA has told me that lack of communication is a real "bottleneck". By the time information reaches the local inspector, he may have misinformed some plants on certain requirements. Recently, I was told by two operators that they needed new knocking pens, but their inspectors had told them not to buy the one with the extra floor. These inspectors did not know that this type of knocking pen is already used in federally approved small plants.

With adequate communications, so that everyone knows what is going on, and good co-operation, so that everyone is working toward that same goal, we can lick these problems. My company has worked closely with the Federal and State men, and the NILFP from the beginning of the inspection program; because we realized that this was vital. Before the August 1971 National Convention, we made a mailing to 2,000 locker plants in Minnesota, North and South Dakota, Nebraska, Wisconsin, Iowa and Illinois. 184 were returned to us marked OUT OF BUSINESS. With a thorough understanding of the program, a little patience and courage this may not have been necessary.

We have come a long way since the passage of the Wholesome Meat Act of 1967 and many of us would not be here today were it not for the efforts of the NILFP with its leader, Bob Maderia, and its membership from coast to coast. Proof of this can be seen

in this quote from a USDA administrator: "NILFP has done a marvelous selling job insofar as the problems of the locker and freezer provisioning industry are concerned. We are convinced that we must keep the nation's locker plants and small meat plants in business; because they are serving a real need."

The USDA has come a long way. At first small slaughtering was as new to them as Federal Inspection was to us. They did not understand our small slaughtering procedures. Today, they are working around the clock in Washington, trying to cooperate and work out problems so that the small slaughterer can operate under Federal Inspection. They are cooperating in Washington. Every visit I make to the USDA I can see the difference. They are becoming more accustomed to our operational problems.

Cooperation has brought us the progress we have made to date, and it must continue between the USDA, NILFP, architects, engineers, contractors, and equipment manufacturers. There must be uniformity of state regulations and requirements for our managers, butchers, and inspectors. Then we can eliminate the managers' reason for blowing his top:

No work is done  
Till inspection is begun!

Give me more light  
To see what's not right!

No Bleeding on the floor  
Raise the roof some more!

Knock out the floors  
Metal clad the doors!

Plaster the ceiling  
The paint is peeling!

No Sawdust on the floor  
Wooden blocks out the door!

No blood on the wall  
Use head flushing stall!

On days you slaughter  
You need 180 degree water!

No shooting in the brain  
We must be humane!

More than an 8 hour day  
Is overtime pay! pay! pay!

**ATTACHMENT D**  
**QUARTERLY FINANCIAL SUMMARY**

**FARMER TO FARMER  
# FAO-0705-A-00-2091  
FINANCIAL REPORT**

	<u>Expenditures</u>		
	<u>Actual Grant to Date</u>	<u>Actual 07/01/95 to 09/30/95</u>	<u>Projected 10/01/95 to 12/31/95</u>
1. Direct Labor	\$313,856	\$16,565	\$30,000
2. Fringe Benefits	94,235	7,662	12,000
3. Consultants	72,945	3,693	6,500
4. Travel/Per Diem	468,529	40,117	102,000
5. Expen. Supplies/Materials	26,830	1,774	6,700
6. Nonexpendable Equipment	33,038	0	0
7. Subcontracts/Subagreements	85,187	0	71,000
8. Other Direct Costs	66,263	2,595	7,600
9. Evaluations	0	0	0
10. Indirect Cost	445,353	40,136	66,942
<b>Total Federal Funds</b>	<b>1,606,236</b>	<b>112,542</b>	<b>302,742</b>
<b>Non-Federal Funds</b>	<b>292,857</b>	<b>28,352</b>	<b>30,274</b>
<b>Total Program</b>	<b>\$1,899,093</b>	<b>\$140,894</b>	<b>\$333,016</b>

This report represents a summary of actual and accrued expenses for the referenced agreement or grant. If accrual expense amounts were not available for activities occurring in the reported quarter, those expenses will be included in the next financial summary.

**ANNUAL REPORT**  
**Year Three**  
**1994-1995**

**VOLUNTEER ASSIGNMENTS**

**Volunteer Demographics**

During year three of the Farmer To Farmer program, Land O'Lakes fielded 37 volunteers. Under a subagreement with Land O'Lakes, FFA fielded 10 volunteers during that same time period. Of the 47 volunteer assignments, 34 were in the Russian Federation and 13 were in Ukraine.

Volunteers represented 21 states: Arizona, California, Colorado, Idaho, Iowa, Illinois, Indiana, Louisiana, Maine, Michigan, Minnesota, Missouri, Montana, North Dakota, New Hampshire, Ohio, Oregon, South Carolina, Texas, Washington, and Wisconsin. There were 39 male and eight female volunteers. All volunteers are or had been actively involved in post-harvest aspects of agriculture: storage, distribution, processing, marketing, cooperative development, curriculum development, education, government policy, financial and business management.

**Beneficiary Organization Demographics**

Volunteers worked with at least 26 different Russian Federation organizations and 11 different Ukrainian organizations. Documented organizations include:

**RUSSIA**

Educational Methodology Center*	Russian-American Joint Commission on Rural Development
Esfir Farm*	Ryazan Agricultural Institute*
Irkutsk State Farm and College/Baikal Wave*	Samara Agro Academy
Kaliningrad Private Farmers Association*	TOO Tatyana
Klimovo Farm*	Trekhopolye Farm
Lena Farm/Bakharev*	Tver Agricultural Institute
Mtensk Agricultural Lyceum - Orel	Tver Workshop
Mostok Cooperative*	Ural Farm
Nadezhda Cooperative*	Venev Dairy Plant*
Penza Agricultural Institute*	Vologda Farmers Association*
Polessk Lycee*	Yakhromsky State Farm and College*
Rus Farm	Yantar Farm
Russian Farmers Foundation*	Zavolzhs District Association of Private Farms

\*Repeat Beneficiary

## UKRAINE

Agrokerat Co.  
Crimean Agricultural Technicum\*  
Crimea Agricultural Institute\*  
District Association of Private Farmers  
Maidanevich Farm  
Peleshkei Farm

Pricordonnik Company  
Salkan Company\*  
Shosh Farm\*  
Trembita Company  
Women's Dairy Group\*

### \*Repeat beneficiaries

The above organizations are located in twelve oblasts of the Russian Federation: Irkutsk, Ivanovo, Kaliningrad, Moscow, Nizhny Novgorod, Orel, Penza, Ryazan, Samara, Tula, Tver and Vologda; and two Ukrainian regions: Respublika Krym and Zakarpats'ka. Organizational focuses include: dairy distribution and processing; grain production, storage and distribution; potato production, distribution, storage and processing; value-added product marketing research; and farm building construction. Institutional focuses include: national, district and local agricultural policy; agriculture policy and methodology education; curriculum development; and cooperative, agribusiness association and farm association development.

Further year-to-date and program-to-date demographics are included in Attachment A.

### Impact

Land O'Lakes continues to use and improve its impact assessment methodology. In addition to conducting impact assessment interviews with the beneficiary organizations, Land O'Lakes Moscow staff is also actively engaged in collecting information on the history and current business situation of the organizations.

There was some measurable impact in the farm operations and businesses of Land O'Lakes beneficiary organizations this year. It remains difficult to quantify impact because of the volatile financial and economic situation in Russia, In particular, the severe rise in inflation rates makes financial gain analysis difficult if not impossible. Information is available, however, an increased assets where assets represent all money and capital goods acquired by the organization. A synopsis of impact reported throughout the year, all of which is directly related to technical assistance provided under the Farmer to Farmer program, follows:

#### Increased Harvest

⇒ 44 tons of oats per hectare harvested on private farm vs. 25 tons per hectare on the adjoining collective farm

### Increased Physical Assets (Capital Goods)

⇒ construction of a mini-feedmill at 100% cost savings over pre-assistance plan

### Increased Livestock Holdings

⇒ increased dairy cow herd to 50 cows based on savings obtained through business plan

⇒ increased pig herd from 15 to 80 pigs due to new light lot pig barn construction

⇒ weight gains among dairy calves 1.5 times higher than previously based on access of calves to colostrum

### Reduction of Operating Costs

⇒ 1,500,000 rubles savings through installation of western-style barn ventilation system rather than traditional Russian system

⇒ 50% cost reduction in installation of drainage and electrical lines due to revised location of barn and house

⇒ 100% cost reduction in operational cost of mini-feedmill through use of efficient feedmill design

⇒ 2,000,000 ruble cost savings in pig barn operations through use of western-style construction and heating

## **FFA SUBAGREEMENT**

During year two, the National FFA Foundation subrecipient expanded into two new Russian oblasts (Orel, Samara, Tver). Further information on the year three FFA program is available in Attachment B.

FFA's objectives remain the same as year one - to develop curricula and methodologies for improving the education of young farmers and the organization of rural youth groups to strengthen the future of farming.

Demographic information regarding FFA volunteer assignments has been included above and in Attachment A in combination with Land O'Lakes information.

## **PROGRAM MANAGEMENT**

Program management for Land O'Lakes and FFA has remained stable this year with no significant changes. In order to balance work loads, Milana Bergthold, previous Land O'Lakes Farmer To Farmer project assistance has been given additional responsibilities for the implementation of the Farmer To Farmer programs. Bergthold's title with regard to the Farmer To Farmer program is "Acting Project Officer." Wade Fauth continues to have an oversight function with regard to the program.

## **OBSTACLES/MAJOR CHANGES**

There were no major obstacles or major changes in the Land O'Lakes Farmer To Farmer program during the third year which affected the implementation of the program. An imbalance of work loads, addressed through the redistribution of project implementation responsibilities as mentioned above, did temporarily slow down the fielding of volunteers. However, the system is currently structured to make the most use of available resources and to ensure a steady flow of volunteers and a steady schedule of impact assessment.

## **ATTACHMENTS**

E. Yearly Financial Summary

**ATTACHMENT E**  
**YEARLY FINANCIAL SUMMARY**

**FARMER TO FARMER  
# FAO-0705-A-00-2091  
FINANCIAL REPORT**

	<u>Expenditures</u>			
	<u>Actual Grant to Date</u>	<u>Actual 07/01/95 to 09/30/95</u>	<u>Projected 10/01/95 to 12/31/95</u>	<u>Projected 10/01/95 to 9/30/96</u>
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5. Expen. Supplies/Materials	26,830	1,774	6,700	14,296
6. Nonexpendable Equipment	33,038	0	0	0
7. Subcontracts/Subagreements	85,187	0	71,000	124,028
8. Other Direct Costs	66,263	2,595	7,600	85,009
9. Evaluations	0	0	0	30,000
10. Indirect Cost	445,353	40,136	66,942	244,499
<b>Total Federal Funds</b>	<b>1,606,236</b>	<b>112,542</b>	<b>302,742</b>	<b>973,764</b>
<b>Non-Federal Funds</b>	<b>292,857</b>	<b>28,352</b>	<b>30,274</b>	<b>88,773</b>
<b>Total Program</b>	<b>\$1,899,093</b>	<b>\$140,894</b>	<b>\$333,016</b>	<b>1,062,538</b>

This report represents a summary of actual and accrued expenses for the referenced agreement or grant. If accrual expense amounts were not available for activities occurring in the reported quarter, those expenses will be included in the next financial summary.