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FARMER TO FARMER PROGRAM

GRANT NO. 263-0225-G-00-4021-00

ANNUAL REPORT

YEAR III

SEPTEMBER 1995 - AUGUST 1996

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- * Picture on the cover page was during a farm visit to Hamasat Mohamed Ahmed, greenhouses core group farmer, in the New graduates area, Bangar El Sokar. She was accompanied by ACDI President, Micheal Deegan (right), John Smith ACDI Vice President (left), Abdel Razek Helmy, FtF Program Director (second to right) and FtF Assistant Program Director (second to left).

Expected Achievements During Year III

September 1995 - August 1996

1. Program Management:

- Hire new FtF staff to fill the positions of a VOCA Program Assistant, a driver in the Cairo office, and three personnel for data entry in the FtF offices.
- Submit Year III Annual Work-Plan
- Launch FtF Impact Assessment
- FtF No-Cost Grant Extension

2. Farmer Selection:

Identify 793 non core group farmers to reach the LOP targets of 12,000.

3. Commodity Selection:

FtF will work in the following commodities:

- | | | |
|-------------|--------------|--------------------|
| ● Tomato | ● Fish | ● Citrus |
| ● Potato | ● Beekeeping | ● Grapes |
| ● Cucurbits | ● Livestock | ● Deciduous Fruits |
| | | ● Tropical Fruits |

4. U.S. Volunteers Technical Assistance:

Make arrangements for 53 U.S. volunteer assignments in specializations, such as, tomato, potato, cucurbits, citrus, grapes, deciduous, beekeeping, fish, livestock, and tropical fruits, to bring the total number of volunteers to 123, exceeding the LOP targets of 120.

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- A. ACHIEVEMENTS DURING YEAR III
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5. Participant Training Program:

Arrange for six participant groups to travel to the United States to receive on-farm training in small scale vegetable production, potatoes, sheep and goat, poultry, aquaculture, deciduous and beekeeping, totalling 39. This will bring the total number of participants trained to 120, therefore, hitting LOP targets of 120.

6. Local Participant Training:

Arrange for 12 groups of internal training participants to receive on farm training in the fields of aquaculture, citrus, tomato, poultry, beekeeping, deciduous, grapes, and sheep and goat, totalling, 60 participants.

7. Technology Advancement:

Training Sessions: Conduct 159 training sessions by U.S. volunteers, field assistants and core group farmers. This will bring the total number of training sessions to 904, exceeding the LOP targets of 900.

Training of Trainers: Train 220 farmers by the end of the project. The purpose of the program is to upgrade the capability of the core group farmers, thus expanding the benefits of FtF imported technologies.

Equipment Procurement: The FtF staff will procure small-scale equipment recommended by volunteers for use by private farmer associations working with FtF. Examples include an aquaculture water quality test, a sheep and goat veterinarian lab and a bee lab. Training on the equipment will be provided by U.S. experts on voluntary basis, with follow-up by FtF field assistants.

8. Linkages:

The FtF Program plans to continue strengthening and expanding its links with Egyptian and U.S. government agencies, ARCs, ACDI member organizations, and other NGOs and development projects in Egypt.

9. Associations:

The FtF Program will continue to encourage the establishment of democratic, farmer-owned associations.

10. Technology Transfer:

Transmit 24 new technologies, given by U.S. volunteers during their farm visits. This will bring the total number of new technologies transmitted to 480, as LOP targets.

11. Monitoring:

Continue developing and updating the Management Information System, with the assistance of the MIS Consultant.

12. Follow Up:

The FtF staff and volunteers will follow up with core group farmers who attended training sessions and were visited by volunteers to determine whether recommendations have been adopted. Each core group farmer should be visited by a volunteer at least once during Year III.

Progress Achieved During Year III

September 1995 - August 1996

1. Program Management:

FtF Staff: FtF filled the following positions that became vacant during Year III: VOCA Program Assistant, Driver for the Cairo office, and three data entry personnel for the three offices. Some re-organization in the FtF staff took place during Year III. FtF Program Director resigned in December 1995 and his assistant was appointed FtF Program Director. FtF Alexandria Field Coordinator was appointed Assistant Program Director in the Cairo office. Also Ismailia Field Coordinator resigned during April 1996, therefore, three new Field Coordinators were appointed in the three FtF offices.

Submit Year III Annual Work-Plan: The Annual Work-Plan for Year III was submitted to USAID during October 1995.

Submit Year II Final Report: The Final Report for Year II was submitted to USAID during November 1995.

Launch FtF Impact Assessment: The FtF Impact Assessment Report was submitted to USAID in May 1996.¹

The study "shows a return on investment of nearly \$3 for every \$1 of USAID grant funds for 600 direct beneficiaries (core farmers). If indirect beneficiaries (12,000 non core group farmers) are also considered, the return is significantly higher. The assessment shows that FtF's person-to-person approach with multiple interventions has enabled Egyptian farmers to increase yields, decrease their costs, improve the quality of their lives... beyond the doubt... the FtF methodology is a cost-effective, highly efficient approach to the rapid transfer of appropriate technology."

FtF No-Cost Grant Extension: The FtF staff developed a No-Cost Grant Extension Request, which has been submitted and approved by the USAID. The program has been extended for three more months from September - November, 1996. New activities will take place such as:

¹ Gene Miller "FtF Impact Assessment: Final Report," May 1996

- 1) Print out publications concerning U.S. volunteers' recommendations.
- 2) Install equipment and conduct equipment training which will be carried out by U.S. experts under voluntary basis.
- 3) Develop a new reporting system for the MIS program to serve the three FtF offices.
- 4) Develop and submit to USAID the Final Report for Phase III, by the end of November 1996.

2. Farmer Selection:

a) Core Group Farmers:

The FtF staff selected 28 core group farmers during Year III, which brings the total number of core group farmers to 703 to date, exceeding the LOP targets of 600. (Appendix A shows FtF Achievements during Year III).

b) Non Core Group Farmers:

The number of non core group farmers reached was 4,214, exceeding Year III targets of 793. The program has now reached 15,421 to date, exceeding the LOP targets of 12,000. This is due to the fact that non core group farmers have become aware of the importance of training sessions and seminars conducted by core group farmers, extension agents and FtF field assistants. Therefore, attendance at training sessions is higher than expected.

3. Commodity Selection:

The FtF Program worked in the following commodities during Year III:

- Tomato
- Potato
- Cucurbits
- Beekeeping
- Livestock
- Fish
- Deciduous Fruits
- Tropical Fruits
- Citrus
- Grapes

4. US Volunteer Technical Assistance:

53 US volunteers completed assignments in Egypt during the year, providing technical assistance in fruits, vegetables, beekeeping, livestock and aquaculture. The total number of volunteers is thus 123 to date, exceeding the LOP targets of 120. The three extra volunteers is due to the fact that there was surplus in the VOCA budget, which made it possible to plan for an extra three volunteers. (Appendix B shows Volunteer Assignments during Year III).

The 53 volunteers conducted a total of 942 farm visits and 202 training sessions which were attended by core group farmers, extension agents and non core group farmers, in nine governorates. Highlights on two volunteer assignments that occurred during the last quarter (June - August 1996) of Year III are as follows:

Tomato Production:

Terry Garwood, Tomato Extension Agent, carried out a tomato assignment in Egypt and made 27 farm visits. They gave the following recommendations to core group farmers: ²

Problem: "The most effective way to control diseases and insects is to properly identify the problem and then use the correct control technique. High pressure sprayers (over 200 psi) are essential to adequately control pest problems. The complete coverage of all plant surfaces is only achieved when pressure or airflow is adequate to thoroughly penetrate all parts of a plant." Said Garwood.

Recommendation: He also stated that "A model of a high pressure pump can be assembled using hydraulic or position pumps and high pressure hoses. Field demonstrations can be held to show growers the differences in how the sprayer is built and in the difference in season-long disease and insect control. With better coverage fewer sprays may be needed, pest control will be better. The additional cost can be justified with increased production, reduced costs and increased profit."

Problem: "Throughout my tremendous verification in seedling quality. The best seedling quality I saw was at the Nona Nursery in the Sharkia District and at the Deif-Allah Farm in the Nubaria District. The transplants grown by the nursery and by the farm are high quality, large, and because they have a root-ball show no signs of transplant shock. At the Deif-Allah Farm the plants had only been in the field for four weeks and already were twice the size of other fields we saw that had been in the field for three months. In both cases the

² Terry Garwood, "Final Report: Tomato Production," July, 1996.

transplants are being grown in white-fly covered greenhouses in cell trays. Special care and attention is given the exclusion of all white-fly from the growing area of the transplants. This requires white-fly screening not black shade cloth. Screening should cover all entry areas, vent openings etc. The worst situation seen was transplants that had been in the field for 30 days and had a very high level of (Tomato Yellow Curl Virus) TYLCV infection. There was no white -fly observed on the plant which indicated to me that infection occurred in the nursery." Said Garwood.

Recommendation: "A concentrated effort should be made to help growers produce or buy high quality disease and insect free transplants. This can be grown in small scale grower constructed, white-fly screened propagation houses or purchased through properly screened greenhouse businesses. the effects of starting with clean healthy transplants will be dramatic. "I feel that most growers are aware of how to control disease and insect in the field but are already in serious trouble because the transplants they are using are already infected with diseases, virus, and white-fly." The additional cost of quality transplants will be more than offset with improved plant health, vigor and increased production and profit," stated Garwood." Stated Garwood.

Sheep and Goat Production:

Dr. Earl Thompson, Sheep and Goat Veterinarian and Susan Schoenian, Sheep and Goat Nutrition Specialist worked as a team of two in the sheep and goat assignment. The major topics that they discussed were; internal parasite control, vaccination programs, breeding and reproduction, nutrition programs and record-keeping. Following are some of the problems that they met and solved during their farm visits. ³ (Appendix C shows Thompson and Schoenian's Final Report).

Problem: "Many farmers are not vaccinating their flocks against Enterotoxemia (over-eating disease), a bacterial disease which usually strikes the fastest growing lambs and kids in the herd. Some farmers are vaccinating ewes, but not lambs," said Thompson and Schoenian.

Recommendation: They also stated that, "Ewes should be vaccinated approximately one month before lambing / kidding. Vaccinating the ewes passes the immunity onto the lambs through the colostrum. If ewes lamb more than once a year, this means two vaccinations a year. Clostridium per-fringes- type C & D (less expensive) or Covexin-8 vaccine may be used. Lambs should be vaccinated for Enterotoxemia (Clostridium per-fringes type D) when they are six and eight weeks of age. It is not necessary to use the more expensive Covexin-8 vaccine. Colostrum immunity may interfere with vaccinations given earlier than 6 weeks."

³ Earl Thompson and Susan Schoenian, "Final Report: Sheep and Goat Production," August, 1996.

Problem: Poor conditioned ewes.

Recommendation: According to Thompson and Schoenian, ewes should be fed according to their production needs. Concentrate feeding should be increased during critical periods; pre-breeding, late-gestation and early lactation (8 weeks). Plan breeding around feed availability.

Problem: "Inbreeding is a common practice on most sheep and goat farms. Inbreeding (mating animals that have more than 50% common ancestry) depresses performance and fixes negative traits in the herd. Mating father to daughter is the worst form of inbreeding and occurs on many Egyptian farms. Sheep and goat raisers do not take advantage of crossbreeding benefits." Stated Thompson and Schoenian.

Recommendation: They also mentioned that "Out-crossing (mating unrelated animals) or crossbreeding (mating different breeds) can significantly improve performance in sheep and goat herds. Ewe lambs and doe kids should be separated from the rest of the flock and mated to an unrelated male. Farmers should purchase a new ram for this breeding or exchange males with other farmers. Rams should be replaced or exchanged every 2 or 3 years. Crossbreeding results in hybrid vigor (the superiority of crossbred offspring over the average performance of its parents) and combines desirable traits from different breeds. Farmers should crossbreed their sheep and goats, paying particularly close attention to the adaptability and marketability of the crossbred offspring. Farmers should experiment with new breeds by breeding a small number of ewes to ram and comparing crossbred offspring with purebred offspring. Detailed records should be kept. Sheep farmers should make crosses among Rahmani, Oseimi, and Barki breeds. The Awassi breed from Israel is also worthy of strong consideration in crossbreeding programs."

5. Participant Training Program:

A total of 39 participants travelled to the States to receive on farm training in the fields of vegetable, potato, deciduous, poultry, aquaculture and beekeeping. This brings the total number of participants to date to 120, thus hitting the LOP targets of 120. During the last quarter of Year III (June - August, 1996) two groups of participants travelled to the States in the fields of aquaculture and beekeeping. Each group consisted of six farmers and an extension agent. (Appendix D presents a list of participant groups during Year III).

Aquaculture Production Group

Five aquaculture farmers, an extension agent and an ACDI Escort/Interpreter arrived in Washington, D.C. on June 3, 1996 to study aquaculture production in the United States. The group visited California and Alabama during their training program. (Appendix E shows Information on Participant Trainees during Year III).

During the California program, Dr. Philip Giovannini and Mr. Zaki Mokhmer were the group's local coordinators. During their visit to Sacramento, they visited the State Hatchery Facility, State Fishery, where they learned about breeding practices of sturgeon, catfish and carp. They also visited stolt sea-farms. They made a tour to Sierra aqua-farms, where they observed sturgeon breeding practices. They visited the California Aquaculture and Fisheries Program at the University of California, Davis. The group also visited the University of California Bodega Bay Marine Laboratory, where they discussed disease preventions, recognition and control.

During the group's tour to San Diego, Mr. George Ray, Secretary of the California Aquaculture Association, discussed with the group breeding practices of catfish. They also visited the Pacific and Solar aqua-farms, where they observed breeding practices of Tilapia.

Mr. Chris Hyde was the group's local coordinator during their Alabama program. They visited Auburn University Department of Fisheries and Allied Aquaculture, where they discussed research and controlling of Tilapia reproduction as well as production of Tilapia stocker fingerlings. They made a tour to the Auburn University Aquaculture Research Facilities and held discussions with aquaculture researchers. They toured Alabama Farmers Cooperative and its Catfish Feed Mill as well as Harvest Select, which is a catfish processing plant.

The group visited Alabama Fish Farming Center, where they learned about water quality management, fish disease diagnostics and management, and pond construction. They made a tour to Mississippi State University, where they saw the University's Tilapia farm. They visited Bon Secour Fisheries, which is a commercial oyster culture project, where they learned about spawning and larval rearing of marine fishes, marine shrimp production, and aeration of shrimp ponds.

During the group's Washington Program, they visited the University of Maryland Center of Marine Biotechnology, where the center performs research on hormonal spawning of fin fish, specializing in hybrid striped bass and Tilapia, with modification for other species. They also visited the Crane Aquaculture Facility, which is an experimental station jointly funded by University of Maryland and Baltimore Gas and Electric. The performs research on strip bass, it uses intensive system demonstration and supporting sub systems in conducting its mission.

Beekeeping Production Group

Five beekeepers, an extension agent and an ACDI Escort/Interpreter arrived in Washington, D.C. on July 24, 1996 to study beekeeping production in the United States. The group visited North Carolina during their training program.

Mr. Bob Zahler was the group's local coordinator during their Washington program, where they visited bee-yards, commercial beekeepers and a processing and extracting plant in Grandview. They also visited a honey processing and extracting plant as well as a large leaf-cutter bee operation.

Mr. Howard Blackburn was the group's local coordinator, during their North Carolina program. They visited Brushy Bountain Bee Farm, where they discussed the manufacturing of wooden ware of beekeeping equipment. They also saw a wide range of beekeeping tools, feeding devices, food for bees, smokers, protective clothing, drugs and chemicals for treating bee pests and diseases, bottling equipment, containers for honey, and hobby supplies.

The group also learned about manufacture of wooden ware, shipping of bee supplies and equipment, queen rearing and queen shipping techniques, comb honey cutting and packaging. They visited North Carolina State University in Raleigh, where they learned about biological control of pests and diseases, natural and artificial ways of queen rearing, pollen substitutes to increase colony strength before nectar flow. The group also visited Golden Farms Foods Inc., where they observed receiving of bulk honey, storage and handling of bulk honey, processing of honey, bottling and packaging of fluid honey, distribution and marketing of processed honey.

They paid a visit to Bee Sweet Inc., where they learned about processing of bee pollen and propolis, incorporation of bee pollen and propolis into health foods, labeling, shipping, handling and marketing of honey and other hive products. The group also learned about building cages for packaged bees and queens, shaking packaged bees, procedures for handling, shipping, receiving and installation of packaged bees into beehive, division of a bee colony, making a nucleus (NUC) hive of bees, extraction, packaging, labeling, and marketing of honey. (Appendix F shows Final Report for one of the beekeeping participants).

6. Local Participant Training:

During Year III, six internal participant groups took place, totalling 50, (44 farmers and six extension agents in commodities such as; tomato, poultry, farm management and beekeeping. This brings the total number of participants to date to 58, lacking the planned targets of 60. (Appendix G shows Local Participant Groups during Year III).

Beekeeping Production Group

During the last quarter of Year III, one internal participant group took place in the field of beekeeping. The group consisted of eight farmers from Ismailia and Alexandria, where they travelled to Menia to receive internal participant training, during June 29 - July 4, 1996. The group met with Dr. Adel Hassan Roushdy, Beekeeping Professor in the Faculty of Agriculture, Menia University. They discussed reasons of the declination of honey quality throughout Egypt and how to identify diseases that infect bees, and ways of treatment.

They met with beekeeping core group farmer Ahmed Shehata, who showed them different types of honey quality, types of queen bees and how to market the honey, queen rearing, grafting station, packing and filtering honey, advantages of honey concentration and how to protect the nutrition value during this process. They visited bees associations in Menia, in which they became familiar with its role in helping and assisting beekeepers. They learned the following:

- 1) Positive and negative issues concerning marketing of honey.
- 2) Importance of stimulating bees before the honey flow, in order to achieve the best honey and to avoid infection of honey.
- 3) The activities of queen bees during coriander honey flow and its importance and how to make use of colonies while they are very active.

7. Technology Advancement

a) Training Sessions

Exceeding the Year III target of 160, a total of 361 training sessions were conducted, 202 by U.S. volunteers and 159 by FtF Field Assistants and core group farmers. This brings the total number of training sessions to date to 1,106 (123%), exceeding the LOP targets of 900.

b) Training of Trainers

The Training of Trainers Program was completed during the month of December 1995. Training sessions were conducted in Gharbia, Qalubia and Menia governorates, where each session was attended by 25 farmers. The trainers provided by GETRAC (a local consulting firm), were university professors specializing in Business Administration, Marketing, Agricultural and Extension Training. The total number of farmers trained to date is 220.

c) Equipment Procurement

The VOCA Program Coordinator in Egypt with coordination with VOCA, Washington has procured from the States a number of equipment and will carry out the needed training for running the equipment, which will be conducted by U.S. experts on voluntary basis. They will serve a large number of farmers and Associations (NGOs) after the termination of the program. This will sustain the flow of information to more farmers year after year. Following are three main projects in order to support farmers in three commodities in different governorates:

- Honey Bees Center in Menia
- Aquaculture Quality Test Lab in Fayoum
- Sheep & Goat Station in Bangar El Sokar

8. Linkages:

The FtF Program continued to strengthen and expand its links with Egyptian and U.S. government agencies, ARCs, ACDI member organizations, and other NGOs and development projects in Egypt. This was achieved through volunteer visits and participant training in the United States, the participation of MOA and other staff and officials in training sessions and farm visits, and by informing university professors, research specialists, and others involved in agriculture about volunteer findings and recommendations. Following is a sample of U.S. volunteers' official contacts during the last quarter of Year III (June - August 1996):

Robert and Marren Berthold, Beekeeping Specialists, met with Dr. Ahmed Badawy, Head of Bee Research Institute, ARC.

Earl Thompson, Sheep and Goat Veterinarian and Susan Schoenian, Sheep and Goat Nutritionist met with Dr. Fekri El Keraby, Head of Animal Production Research Institute, ARC.

Robert Bullock, Citrus Specialist and Robert Pelosi, Citrus Extension Agent, met with Dr. Ghareeb El Banna, Head of Horticulture Department, ARC in Cairo and Dr. Mohamed Saddallah, Head of the Citrus Department, ARC. They also met with Dr. Professor Bakeer Outefa, MOA Minister Counsellor.

9. Associations:

The development of private, member-owned and managed associations is something completely new to Egyptian farmers, but with the help of the FtF Program, a number of core group farmers have succeeded in forming their own cooperative associations under the guidance and assistance of the FtF staff, as follows:

- Fayoum Aquaculture Association
Chairman: Mohamed Gouda El Sayed
- El Fatah Association for Agricultural Production and Development
Chairman: Hamed El Raies

10. Technology Transfer and Economic Impact:

During Year III, 87 new technologies were introduced to Egyptian farmers by U.S. volunteers, totalling 543 new recommendations to date, exceeding the LOP targets of 480. From the 543 technologies transferred, 374 have been adopted by core group farmers. Of the 703 core group farmers selected to date 348 have adopted at least one of the new technologies introduced. The Implementation Plan states that FtF will track related indicators that reflect FtF's impact in a variety of areas, from investment to cultural understanding. Examples of impact in these areas during Year III include the following: ⁴

Sheep and goat core group farmer, Mohamed Omar Abdel Wanis, owns 50 feddans and has 300 sheep and 15 goats. He joined the FtF program in 1994 and received five recommendations from one volunteer visit. By applying the recommendations, Abdel Wanis has decreased the ewes' mortality rate, started selling his lambs during the peak-price season, increased the replacement of his herd, reduced his feed costs, and obtained greater weight gain. He estimates that the overall economic impact of these changes is LE 15,000 in 1995.

⁴ Case studies are taken from the FtF Impact Assessment.

Abdel Wanis estimates that he has conveyed the new information he received from FtF to approximately 300 other herders in his community and 600 in neighboring communities, leading to estimates of additional benefits equivalent to at least LE 2.2 million (900 families $\div 2 = 450$ families). $LE\ 15,000 \times 33\% = LE\ 4,950$.
 $450\ families \times LE\ 4,950 = LE\ 2.2\ million$.

Mango core group farmer Moustafa Ali Iraqi, owns 13 feddans in mango in Fayed. He joined the FtF program in 1993. He received nine recommendations from 2 volunteer visits. By applying the FtF recommendations, Mr. Iraqi was able to increase his production from 5 tons/feddan to 7 tons/feddan. He estimated his selling price at LE 500/ton which provides a financial impact of LE 13,000 for his 13 feddans. He received an additional saving of LE 75/feddan by reducing his pesticide usage or LE 975. The overall increased earnings are LE 13,975.

Tomato core group farmer Kasem Saleh Tobeiz, owns 130 feddans, with 90 feddans in tomatoes. He joined the FtF program in 1993 and visited the United States as a participant in 1994 and received 20 recommendations from six volunteer visits. By applying the FtF recommendations, Mr. Tobeiz was able to increase his production from 20 tons/feddan to 30 tons/feddan. He estimated his selling price at LE 500/ton which provides a financial impact of LE 450,000 for his 90 feddans. In addition, he reduced his chemical usage by LE 200/feddan for an additional financial savings of LE 18,000. Thus the overall impact for his farm was LE 468,000.

Citrus core group farmer Hatem Abdel Hamid El Tahan, owns 150 feddans, in which 70 are specialized in citrus. He joined the FtF program in 1992 and went to the USA as a participant in 1992. He received six recommendations from two volunteer visits. By applying the FtF recommendations, El Tahan was able to increase his production from 3/tons/feddan to 4/tons/feddan. He estimated his selling price of LE 500/ton which provides a financial impact of LE 105,000 for his 70 feddans. He received an additional savings of 100/feddan by reducing his chemical usage or LE 7,000. The overall increased earnings are LE 112,000.

11. Monitoring:

a) Management Information System (MIS):

The MIS Consultant carried out the following tasks during Year III:

- Designed data flow diagrams and a complete program listing
- Transformed the MIS Program to run under Windows
- Created a complete graphical representation of statistics on farmers under Windows, using "Power Point".

The MIS Consultant also carried out Phase I and II, in order to make the MIS Program flexible for users to manage with easily:

Phase I: Advanced Development of the FtF MIS:

- Capture screens, saving the files and printing hard copies
- Check current designs and edit hard-copies manually
- Re-design screens and linking them together
- Complete program and testing

Phase II: Integrity and Accuracy of Data:

- Print hard copies of all files
- Analyze design of files and edit the hard copies of data files manually
- Run the application after changed for testing
- Re-design the necessary changes and update all the data files to fix errors.

Phase III: Reporting System:

Another consultant will be responsible for developing a new reporting system for the MIS program, that will assist the three FtF offices.

b) Monitoring Visits:

On August 13 - 15, 1996, Blair Cooper, USAID Agricultural Development Officer, carried out a monitoring visit to Matrouh and was accompanied by FtF Program Director and Alexandria Field Coordinator.

They met with Mr. Aly Saber Hammed, Head of Matrouh Agricultural Department. They also met with core group farmers, Abdel Malek Hameda, Khamees Dabous and Etman Saleh. They are sheep growers at El Negila, West Matrouh City. They also met with U.S. sheep and goat volunteers, Susan Shoeinian and Earl Thompson during their farm visits. They also visited Abdulla El Zayatt, sheep farm at El Hawalla district, Matrouh.

12. Follow Up:

FtF staff and volunteers have followed up with core group farmers who attended training sessions and were visited by volunteers. 202 training sessions were conducted by 53 volunteers, which were attended by core group farmers. Follow up visits were also carried out with non core group farmers. Each of the 12 FtF field assistants have conducted spot checks with non core group farmers to assess whether the technology transfer process is occurring and recommendations are being adopted.

Comments on Plans Versus Achievements

- *U.S. volunteer assignments:* As explained above, a total of 53 volunteers undertook assignments during the year compared to the 50 originally planned. This brings the total number of volunteers to date to 123, exceeding the LOP target of 120.
- *Technology transfer:* 87 new technologies were transmitted to farmers instead of the 24 targeted.
- *Non core group farmers:* Similarly, the number of non core group farmers participating in the FtF activities was 4,214, instead of the targeted number of 793. Thus bringing the total number of non core group farmers to date to 15,421, exceeding the LOP targets of 12,000. This is because core group farmers have been very active and attendance at training sessions by non core group farmers has been very high.
- *Selection of core group farmers:* 28 new core group farmers have been selected, bringing the total number of core group farmers to date to 703, exceeding the LOP targets of 600.
- Appendix H contains graphs showing achievements versus targets for Year III.

Plans For FtF Non-Cost Extension Period

September - November 1996

Since there was a surplus in the FtF budget, therefore, the USAID agreed to extend the program for another three month period from September - November 1996, on non-cost basis. The following activities will be implemented during the coming three months.

U.S. Volunteers: Distribution of volunteer recommendations in the fields of, beekeeping, aquaculture, sheep and goat and horticulture.

Procured Equipment: Distribute and install agricultural equipment in Fayoum, Menia and Alexandria governorates.

Internal Participant Training: Conduct six training programs to train farmers how to use the newly purchased equipment.

MIS System: Start Phase III of the Management Information System, which includes designing a new reporting system in the three offices.

Printing publications: Gather information about U.S. volunteers' activities, print out publications and distribute them.

Final Report: Develop and submit to the USAID FtF Phase III Final Report during the period from September 1993 - August 1996.

APPENDIX A

ACHIEVEMENTS DURING YEAR III

Farmer to Farmer Program
 Sep 95 - Aug 96
 Year III Achievements

Activity	Quarter I Sep - Nov	Quarter II Dec - Feb	Quarter III Mar - May	Quarter IV Jun - Aug	Year III Achievements	Year III Targets
tion of Core Group Farmers	16	12	0	0	28	0
Visits by Volunteers	174	194	318	256	942	1,166
eer Assignments	19	6	19	9	53	53
nants Trained in the U.S.	14	7	6	12	39	39
d Technologies Transmitted	20	17	26	24	87	300
Sessions	61	47	124	129	361	159
ore Group Farmers	1,452	613	1,416	733	4,214	793

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APPENDIX B

VOLUNTEER ASSIGNMENTS

DURING YEAR III

**Farmer to Farmer Program
Volunteer Assignments
September 1995 - August 1996**

No.#	Name	Expertise	Date
1	Anne Harmon	Beekeeper	09/15/95 - 10/13/95
2	Ernest Miner	Bee Disease Specialist	09/15/95 - 10/13/95
3	Martin Krieg	Citrus Specialist	09/22/95 - 10/20/95
4	Lionel Stange	Citrus Specialist	09/22/95 - 10/20/95
5	Ivan Hopkins	Potato Extension Agent	09/29/95 - 10/27/95
6	Terrill Christeinsen	Potato Production Specialist	09/29/95 - 10/27/95
7	Herbert Thomas	Cucurbits Production Specialist	10/13/95 - 11/10/95
8	George Hughes	Cucurbits Extension Agent	10/13/95 - 11/10/95
9	Thomas Dyson	Tomato Extension Agent	10/13/95 - 11/10/95
10	Philip Giovannini	Water Quality Specialist	10/20/95 - 11/17/95
11	Steven Gabel	Aquaculture Extension Agent	10/20/95 - 11/17/95
12	Benjamin Mahilum	Mango Production Specialist	10/27/95 - 11/24/95
13	Jack Ross	Mango Extension Agent	10/27/95 - 11/24/95
14	John Blake	Poultry Nutrition Specialist	11/17/95 - 12/15/95
15	David Kradel	Poultry Veterinarian	11/17/95 - 12/15/95
16	Robert Krassweller	Deciduous Extension Agent	11/25/95 - 12/22/95
17	Robert Boweres	Deciduous Production Specialist	11/25/95 - 12/22/95
18	Arden Kashishian	Grape Extension Agent	11/25/95 - 12/22/95
19	Myron Kerbajian	Grape Production Specialist	11/25/95 - 12/22/95
20	Leland Clinger	Potato Specialist	01/05/96 - 02/02/96
21	Roger Brinkman	Potato Specialist	01/05/96 - 02/02/96
22	Bruce Hicks	Cucurbits Specialist	01/12/96 - 02/09/96
23	Brian Moraghan	Cucurbits Specialist	01/12/96 - 02/09/96
24	Earl Lee	Beekeeper	02/23/96 - 03/22/96
25	Willie Cole	Beekeeper	02/23/96 - 03/22/96
26	Edgar Holcomb	Citrus Extension	03/08/96 - 04/05/96
27	Brian Boman	Citrus Production Specialist	03/08/96 - 04/05/96
28	Mohamed Abdelrahman	Grapes IPM Specialist	03/15/96 - 04/12/96
29	George Rohrbacher	Grapes Production Specialist	03/15/96 - 04/12/96
30	David Curtis	Tomato Extension Agent	03/22/96 - 04/19/96
31	James Jasinski	Tomato IPM Specialist	03/22/96 - 04/19/96
32	Arnold McLain	Livestock Nutritionist	03/29/96 - 04/26/96
33	Kathleen Culverson	Livestock Veterinarian	03/29/96 - 04/26/96
34	Stan Micheline	Mango Extension Specialist	04/05/96 - 05/03/96
35	Ralph Vorties	Mango Production Specialist	04/05/96 - 05/03/96
36	Gerald Brown	Deciduous Production Specialist	04/05/96 - 05/03/96
37	William Mizelle	Deciduous Extension Agent	04/05/96 - 05/03/96
38	Robert Strickler	Poultry Industrial Specialist	04/27/96 - 05/22/96
39	Douglas Newbold	Potato Specialist	04/30/96 - 05/24/96
40	Mir Mohamed Seyedbaghari	Potato Extension Agent	04/30/96 - 05/24/96
41	Eileen Mattei	Fish Production Specialist	05/24/96 - 06/24/96
42	Guy Mattei	Fish Production Specialist	05/24/96 - 06/24/96
43	Norman Stakkeland	Grape Extension Specialist	05/31/96 - 06/30/96
44	Roderick Ansel Shippy	Grape Post Harvest Specialist	05/31/96 - 06/30/96
45	Terry Garwood	Tomato Extension Agent	06/21/96 - 07/19/96
46	Robert Berthold	Beekeeping Specialist	07/12/96 - 08/09/96
47	Marren Berthold	Beekeeping Specialist	07/12/96 - 08/09/96
48	Earl Thompson	Sheep and Goat Veterinarian	07/26/96 - 08/23/96
49	Susan Schoenian	Sheep and Goat Nutritionist	07/26/96 - 08/23/96
50	Fred Voit	Mango Processing Specialist	08/02/96 - 08/30/96
51	Malcom Manner	Mango Extension Agent	08/02/96 - 08/30/96
52	Robert Bullock	Citrus Specialist	08/16/96 - 09/13/96
53	Robert Pelosi	Citrus Extension Agent	08/16/96 - 09/13/96

Commodity	Number of Volunteers
Tomato	4
Fish	4
Bees	6
Citrus	6
Deciduous	4
Cucurbits	4
Grapes	6
Poultry	3
Sheep and Goat	4
Mango	6
Potatoes	6
Total	53

APPENDIX C

SAMPLE OF VOLUNTEER'S

FINAL REPORT

FINAL REPORT

Egypt Sheep & Goat Project

I. Executive Summary

1. Project number: #AE100097 Dr. Earl Thompson, Sheep & Goat Veterinarian
Volunteers: #AE100098 Susan Schoenian, Sheep & Goat Nutrition Specialist
2. Project Dates: July 25, 1996 - August 23, 1996
3. Host Organization: Agricultural Cooperative Development International (ACDI)
Farmer to Farmer (FtF) Egypt
4. Scope of work: Two to three farm visits and/or villages meetings were conducted daily by volunteers. Additional visits were made to gain a better understanding of the Egyptian sheep and goat industry. Major topics of discussion were: internal parasite control, vaccination programs, breeding and reproduction, nutrition programs and record-keeping.
5. Recommendation Summary

Our observations of the effects of this FtF project were mixed. Some of the farmers were using many of the recommendations given by ACDI and U.S. volunteers and had passed much information onto others. Some of the extension agents were extremely interested in learning. The staff of ACDI were being trained in many fields. All of these people will most likely be involved in the future in agriculture in Egypt.

Changes in agricultural practices take time, but some of these core farmers and trained extension agents will eventually have a profound effect on agriculture in their areas.

II. Body of the Report

1. Host organization description: Agriculture Cooperative Development International (ACDI) is a non-profit training, technical and management assistance organization created in 1963 by leading U.S. agricultural cooperatives and farmer organizations. In 1988, ACDI launched the Farmer-to-Farmer (FtF) Program, which aims to increase food production and improve the economic well-being of farmers in Egypt through the provision of training and technical assistance. On-farm assistance is provided by American farmers, extension agents and researchers who volunteer four weeks of their time.

2. Prioritized issues/problems with recommendations, proposed actions and anticipated impact of the actions.

Health

- a) Problem: Parasites (stomach worms, lung worms, liver fluke, external parasites) are the most serious health problem affecting sheep and goats in the Delta, New Lands and Bedouin areas of Egypt.

Recommendation: Sheep and goats should be dewormed at least four times per year, lambs and kids more often. Drugs of choice are Levamisol (very inexpensive), Albendazole (also effective against adult liver flukes) and Ivomec (also effective against external parasites). Injectable dewormers may be injected subcutaneously or squirted in the animal's mouth. The flock (especially lambs and kids) should constantly be monitored for signs of internal parasitism (dirty tails, diarrhea, pale membranes, fluid under jaw). It may be necessary to deworm heavily parasitized animals every two weeks during critical periods. Lambs showing signs of coccidiosis (bloody diarrhea, general unthriftiness) should be treated with sulfa drugs or other antibiotics. Feeding a mineral block with Bovatec (Lasalocid) will help to prevent a coccidiosis outbreak. Overcrowding and poor sanitation also contribute to disease and should be avoided. All feed should be fed in feeders. Only feeders which prevent contamination by animals should be used.

- b) Problem: Many farmers are not vaccinating their flocks against enterotoxemia (overeating disease), a bacterial disease which usually strikes the fastest growing lambs and kids in the herd. Some farmers are vaccinating ewes, but not lambs.

Recommendation: Ewes and does should be vaccinated approximately one month before lambing/kidding. Vaccinating the ewes passes the immunity onto the lambs through the colostrum. If ewes lamb more often than once a year, this means two vaccinations a year. Clostridium perfringens type C & D (less expensive) or Covexin-8 vaccine may be used. Lambs should be vaccinated for enterotoxemia (clostridium perfringens type D) when they are six and eight weeks of age. It is not necessary to use the more expensive Covexin-8 vaccine. Colostrum immunity may interfere with vaccinations given earlier than 6 weeks.

- c) Problem: Foot and mouth disease was diagnosed in a flock in the New Lands.

Recommendation: Farmers having livestock in areas where foot and mouth disease is known to exist should vaccinate their herds immediately (goats, cattle, sheep and buffalo). Since sheep and goats travel west from outbreak areas near Alexandria, all animals should be vaccinated west as the traveling animals will bring the disease with them. Sheep and goats that are infected with foot and mouth disease should be given plenty of water and shade as the disease runs its course. Secondary infections should also be treated.

- d) Problem: Some farmers report a high percentage of abortions in their flocks. Brucellosis was diagnosed in one flock.

Recommendation: The history of many outbreaks makes vibriosis the likely cause. After abortion, a fresh placenta should be taken to a laboratory where an impression smear can demonstrate vibriosis. If present, all females should be vaccinated with camphlobacter vaccine and all new additions to the flock every year (pre-breeding). Also, tetracycline should be given at a rate of 500 mg per animal per day for one week in the feed. Brucellosis can also cause abortion in late pregnancy. All males should be tested for brucellosis before entering the flock. Their testicles and epidymitis should be examined for evidence of disease. Any female that aborts should be tested for brucellosis. Any animal testing positive should be culled from the flock. When abortions occur, the fetus and placenta should be buried to prevent spread of the disease.

- e) Problem: Several farmers reported losses from white muscle disease (Selenium-Vitamin E deficiency).

Recommendation: Farmers should provide their animals with a mineral block at all times. This is particularly important prior to lambing to prevent white muscle disease. Lambs and kids may be given an 1 cc injection of Bo-se (Vitamin E and Selenium) at one week of age to prevent white muscle disease. All dead lambs should be cut open to determine cause of death. White muscle disease is evidenced by white striations in the heart and muscles.

- f) Problem: Some farmers report problems with sore mouth.

Recommendation: Farmers or veterinarians can make their own vaccine for sore mouth by mixing the sore mouth lesions with water. The vaccine should be applied under the thigh (lamb) or inside the ear (ewe) after scraping the skin. Scab development means that the vaccine was effective. The vaccine should not be left in direct sunlight.

Nutrition

- a) Problem: Poor conditioned ewes.

Recommendation: Ewes should be fed according to their production needs. Concentrate feeding should be increased during critical periods: pre-breeding, late-gestation (last month) and early-lactation (8 weeks). Plan breeding around feed availability.

- b) Problem: Farmers rely too much on commercial pellets which are of questionable quality and value and do not meet the needs of all classes of sheep and goats. Other feeds should be utilized to formulate least-cost rations.

Recommendation: Five samples of pellets will be tested by U.S. feed laboratories. The nutrient costs for the pellets will be compared to the nutrient costs of other available feedstuffs. This information will be provided to field representatives and extension agents. Farmers can save money by mixing their own rations, using the feed stuffs that are available in their area. If feed is unavailable, farmer groups should look at ways to import feed to their areas. There is a strong need for someone to develop a high-protein supplement for sheep and goats. The supplement must be fortified with vitamins and minerals, and when combined with whole grains, such as corn, barley, sorghum and wheat, could provide a complete ration for sheep and goats. Extension agents and field representatives should help farmers develop least-cost rations.

c) Problem: Slow-growing lambs. All sheep are fed together.

Recommendation: Lambs should be fed separately from their mothers and be given rations that promote rapid growth. Pellets are inadequate in energy for fast-growing lambs. Whole grains, such as corn, barley, wheat and sorghum, will greatly improve lamb gains. However, all feeding programs should be evaluated on the basis of economics. If additional concentrate is fed to lambs for better growth, additional income must be received in order to compensate for the additional cost.

d) Problem: Pellets do not meet the protein needs of growing lambs and lactating ewes.

Recommendations: When pellets are being fed to lambs and lactating ewes, an additional protein source should be added to the ration to meet their higher protein requirements. Protein sources include berseem hay (cut at the proper stage), fava beans, wheat bran, soybean meal and cottonseed meal.

e) Problem: Some rations contain inadequate amounts of vitamins and minerals.

Recommendation: Sheep and goats should have access to a mineral block at all times. Even though pellets contain vitamins and minerals, the amounts become diluted when other feeds are added to the ration. A mineral block will prevent deficiencies and ensure adequate levels of these nutrients. A selenium deficiency can result in poor reproductive performance and white muscle disease. An imbalance of calcium and phosphorus in the ration can result in urinary calculi (kidney stones).

f) Problem: Early-weaned lambs are not being creep fed.

Lambs make their most efficient gains (less feed required per kg of weight gain) when they are very young. Consequently, early-weaned lambs (less than 3 months of age) should be creep fed. Creep feeding is the practice of providing feed to lambs in the absence of their mothers. It can be accomplished by separating the lambs from their mothers or creating a barrier where lambs can enter a feeding area, but ewes cannot. The creep ration should be

fresh, palatable and of high quality. Protein level should be 16-18%. It is not necessary to creep feed lambs that will be finished on green pasture.

Breeding and reproduction

- a) Problem: Inbreeding is a common practice on most sheep and goat farms. Inbreeding (mating animals that have more than 50% common ancestry) depresses performance and fixes negative traits in the herd. Mating father to daughter is the worst form of inbreeding and occurs on many Egyptian farms. Sheep and goat raisers do not take advantage of crossbreeding benefits.

Recommendation: Outcrossing (mating unrelated animals) or crossbreeding (mating different breeds) can significantly improve performance in sheep and goat herds. Ewe lambs and doe kids should be separated from the rest of the flock and mated to an unrelated male. Farmers should purchase a new ram for this breeding or exchange males with other farmers. Rams should be replaced or exchanged every 2 to 3 years. Crossbreeding results in hybrid vigor (the superiority of the crossbred offspring over the average performance of its parents) and combines desirable traits from different breeds. Farmers should crossbreed their sheep and goats, paying particularly close attention to the adaptability and marketability of the crossbred offspring. Farmers should experiment with new breeds by breeding a small number of ewes to ram and comparing crossbred offspring with purebred offspring. Detailed records should be kept. Sheep farmers should make crosses among Rahmani, Osseimi, and Barki breeds. The Awassi breed from Israel is also worthy of strong consideration in crossbreeding programs. For 25 years, this fat-tailed breed has been intensively selected for milk production, twinning rate and growth rate. It could make a significant contribution to the Egyptian sheep industry. Artificial insemination should be introduced to goat herds. Crossing with frozen semen from the Anglo-Nubian breed could greatly enhance the milk producing ability of native goats, providing nutritious goat milk and/or additional income for the family. There are already many AI technicians and nitrogen tanks in the countryside to facilitate this process.

- b) Problem: Twinning rate is low in many flocks and varies considerably from flock to flock.

Recommendation: As reported by different farmers, Egyptian breeds seem capable of high reproductive performance. Of the many factors which affect reproductive rate, nutrition exerts the largest effect. Ewes that are in better flesh (i.e. weigh more) will conceive and give birth to more lambs than ewes that are in poor condition (thin, light weight). If ewes are not in good condition at the time of breeding, flushing may increase reproductive performance. Flushing is the practice of giving extra feed to the flock prior to and during the first several weeks of the breeding season. The purpose is to cause ewes to gain weight, which will result in a larger number of eggs being ovulated for potential fertilization. Flushing can be accomplished with concentrates or better quality forage. As ewes reach their maximum

reproductive performance between the ages of 3 and 7, they should be retained in the flock as long as they are productive. Reproductive rate will be low if a large percentage of the flock is ewe lambs. Selection for reproductive rate can result in long term genetic progress. Only rams which were born a twin or berthed from a ewe that was a twin should be used for breeding. If selection is being imposed on ewe lambs, only those which are born a twin should be retained. The use of prolific genotypes (e.g. Finnish Landrace and Romanov) should be practiced with extreme caution. These breeds increase the variability of litter size and should only be used where the level of management and nutrition is already high. Farmers should realize that prolific genotypes that while they have the potential to increase reproductive rate, they may impart negative traits, such as slower growth rate and poor adaptability to the environment.

Farm management

- a) Problem: Only one farmer reported keeping financial records on his sheep operation.

Recommendation: Farmers need to keep a record of the expenses and income of their sheep operation. This is necessary to determine profitability of the operation, as well as the profitability of different feeding and management practices. Record keeping can be done simply by recording all income and expense transactions in a notebook. Production records should also be kept to determine performance of the flock and individual animals.

3. Key contacts:

Ahmed Roushdy, Volunteer Program Coordinator, ACDI/VOCA/FtF/Egypt
Abdel Razek Helmy, FTF Project Manager, ACDI/FtF/Egypt
Hamdy Attia, Field Coordinator, ACDI/FtF/Ismailia
El-Bayoumi Awad, Field Assistant, ACDI/FtF/Ismailia
Dr. Fikry El Keraby, Director of APRI
Adham El Sherbini, Field Coordinator, ACDI/FtF/Alexandria
Nabil M. Abdel-Aal, Field Assistant, ACDI/FtF/Alexandria
Ibrahim Ahmed E.L. Sayed, Ph.D., Senior researcher, Animal Research Center, Alexandria
Ali Saber, Manager, Matrouh Agriculture Department
Abdel Hamid El Sayed Hassan, Extension Agent, Alexandria
Blair Cooper, US AID, Cairo

III. Materials left

Books:

Sheep Housing and Equipment Handbook (3 copies)
Sheep Production Handbook (2) (Cairo and Alex offices)
Sheep and Goat Diseases (1) (Alex office)
Sheep Diseases (by Winrock) (1) (Alex office)

Factsheets: 3 copies each

"Management tips for internal parasite control in sheep and goats," Texas Agricultural Extension Service
"Formulating rations with the Pearson square method," Colorado State University Cooperative Extension
"Lamb feedlot nutrition and management," Colorado State University Cooperative Extension
"Feedstuff composition for cattle and sheep," Colorado State University Cooperative Extension
"Effects of limit feeding a high-grain diet on puberty and reproductive performance of ewes," Journal of Animal Science
"Effects of feeding a high-grain diet at a restricted intake on lactation performance and rebreeding of ewes," Journal of Animal Science
"Finishing lambs with whole grain," Virginia Cooperative Extension
"Coccidia infection in ruminants," Maryland Cooperative Extension
"Forage quality grazing and hay," Mississippi Cooperative Extension
"Goat reproductive management," University of Maryland Eastern Shore
"Maryland Sheep News," Maryland Sheep Breeders Association

Computer programs

Sheep ration formulator, Montana State University

Animal health supplies:

Ivomec 100 cc (2 bottles)
Rompum (1 bottle)
Bo So (1 bottle)
Lutalyse (6 bottles)
Enterotoxemia vaccine (6 bottles)
E-coli vaccine (30 doses)
E-coli serum (6 tubes)
6-inch spay needles (2)

IV. Confidential memo to VOCA

We want to thank the staff of ACDI and VOCA and participating farmers for a very wonderful time. We have taught some, learned much, ate lots and laughed continuously. Before this trip, great Egyptian hospitality was a rumor-- now we know it as a fact. The

ACDI/FtF administrators, field assistants and drivers were all excellent. They went out of their way to make us comfortable and facilitate our job.

Follow-up

Communicate with Dr. Mary Gessert and assist her in finding materials for clinic/diagnostic lab in New Lands.

Have feed samples (pellets) analyzed at U.S. laboratory, compare nutrient costs for different feedstuffs and return this data to ACDI and other interested parties.

Send masters thesis research report on selection for reproductive rate to scientists at Alexandria University.

Send Adham El Sherbini a copy of publications available from Midwest Plan Service.

Send photos to FtF core farmers and field assistants taken during project.

Send information on vaccines to Nabil M. Abdel-Aal.

Send information on beekeeping (from the Internet) to Nabil M. Abdel-Aal

Clinic recommendations

We visualize this clinic as providing a full-service clinic for diagnosing diseases, deficiencies and pregnancies. In addition, the clinic should provide vaccinations and internal and external parasite control. It should provide facilities to handle a large flock of animals and do foot trimming and shearing.

The holding area should provide 4-5 square feet for sheep and 7 square feet for a ewe and her lambs. A flock of 200 ewes would require 1,400 square feet or about 30 x 80 feet. The holding area should be made so that the pen can be adjusted to the size of the flock. The entrance gate should be wide and the pens should be rectangular, not square. No gaps should be left between the gates and posts. A handling system should be constructed so that sheep can be fed into a chute for easy access and handling. A scale for sheep and goats should be placed in the chute (due to the small size of sheep and goats, cattle scales are much less accurate) and a side gate should be placed on the chute in order to gain access to the side of the animal. A head gate and sorting gate are recommended, with additional holding pens to separate animals into different groups. A shearing area should be set up.

APPENDIX D

PARTICIPANT TRAINING GROUPS

DURING YEAR III

**Farmer to Farmer Program
Participant Training Program
September 95 - August 96**

Technical Focus	Participant		Escort	U.S. State
	Name	Governorate		
Vegetable 10/18/95 - 11/14/95	Ahmed Khalifa Hassan El Sayed Hamdy Bashah El Shohat Amer Mohamed Ali Abdel Salam Temraz Hanna Ghattas	Sharkia Alexandria Alexandria Alexandria Sharkia Alexandria Fayoum (MOA)	M. Moussa	Arizona Mezoni Colorado
Potato 10/30/95 - 11/22/95	Hussien Othman Mohamed Fisal Ahmed Abdallah Diaa El Din Dabbous Ibrahim El Oraby Nasser Nada Omar Cheater	Ismailia Ismailia Ismailia Alexandria Gharbia Alexandria Alexandria (MOA)	M. El Shinawy	New Mex Florida
Deciduous 02/29/96 - 03/23/96	Fawzy Abdel Maksoud Faysal Hashem Sameh El Makawy Ahmed Sayed Salem Seliman El Sayed Yassen Mahmoud Abdel Fatah	Giza Behera Alexandria Alexandria North Sinai North Sinia (MOA) Giza (MOA)	N. Abdel Aal	California Washington
Poultry 04/22/09 - 05/18/96	Saed Gebrel Nabil El Hew Mohamed Salah El Din Abdel Hakem Ahmed Adel Metwaly Abdel Rahman Ahmed	Alexandria Gharbia Gharbia Sharkia Ismailia Qalubia (MOA)	M. Moussa	Washington
Aquaculture 06/03/96 - 06/29/96	Gaber Abdallah AbdeL Aziz Fahmy Samera Rozyka Nadia Saber Tarek Shehab El Din Sami El Baz	Fayoum Alexandria Alexandria Alexandria Alexandria Alexandria (MOA)	Ghada	California Alabama
Beekeeping 07/24/96 - 08/20/96	Gamal Abdel Rahman Ahmed El Khouly Maamoun Othman Sobhi Deif Abdel Hakem El Emam Mohamed Habboun	Menia Alexandria Gharbia Qalubia Gharbia Matrouh (MOA)	Galal	Washington N. Carolina

Participants by Governorate

Governorate	Farmers	Extension Agents
Giza	1	1
Alexandria	14	2
Behera	1	0
Fayoum	1	1
Matrouh	0	1
Sharkia	3	0
Gharbia	5	0
Qalubia	1	1
Menia	1	0
North Sinaa	1	1
Ismailia	4	0
Total	32	7

Participants by Commodity

Commodity	Farmers	Extension Agents
Aquaculture	5	1
Poultry	5	1
Beekeeping	5	1
Vegetable	6	1
Potato	6	1
Deciduous	5	2
Total	32	7

APPENDIX E

INFORMATION ON PARTICIPANT

TRAINEES DURING YEAR III

Year III
First Quarter
September - November 1995

Name Ahmed Khalifa
Citizenship Egyptian
Gender Male
Training Site Arizona, Mezoni and Colorado
Training dates October 18 - November 13, 1995
Purpose of Training Training in vegetable
Type of Training Technical

Name Hassan El Sayed
Citizenship Egyptian
Gender Male
Training Site Arizona, Mezoni and Colorado
Training dates October 18 - November 13, 1995
Purpose of Training Training in vegetable production
Type of Training Technical

Name Hamdy Bashah
Citizenship Egyptian
Gender Male
Training Site Arizona, Mezoni and Colorado
Training dates October 18 - November 13, 1995
Purpose of Training Training in vegetable
Type of Training Technical

Name El Shohat Amer
Citizenship Egyptian
Gender Male
Training Site Arizona, Mezoni and Colorado
Training dates October 18 - November 13, 1995
Purpose of Training Training in vegetable production
Type of Training Technical

Name Mohamed Ali
Citizenship Egyptian
Gender Male
Training Site Arizona, Mezoni and Colorado
Training dates October 18 - November 13, 1995
Purpose of Training Training in vegetable production
Type of Training Technical

Name Abdel Salam Temrazi
Citizenship Egyptian
Gender Male
Training Site Arizona, Mezoni and Colorado
Training dates October 18 - November 13, 1995
Purpose of Training Training in vegetable production
Type of Training Technical

Name Hanna Ghattas
Citizenship Egyptian
Gender Male
Training Site Arizona, Mezoni and Colorado
Training dates October 18 - November 13, 1995
Purpose of Training Training in vegetable production
Type of Training Technical

Name Hussien Othman
Citizenship Egyptian
Gender Male
Training Site New Mexico, Colorado and Florida
Training dates October 30 - November 21, 1995
Purpose of Training Training in potato production
Type of Training Technical

Name Mohamed Fisal
Citizenship Egyptian
Gender Male
Training Site New Mexico and Florida
Training dates October 30 - November 22, 1995
Purpose of Training Training in potato production
Type of Training Technical

Name Ahmed Abdallah
Citizenship Egyptian
Gender Male
Training Site New Mexico and Florida
Training dates October 30 - November 22, 1995
Purpose of Training Training in potato production
Type of Training Technical

Name Dīaa El Din Dabbous
Citizenship Egyptian
Gender Male
Training Site New Mexico and Florida
Training dates October 30 - November 21, 1995
Purpose of Training Training in potato production
Type of Training Technical

Name Ibrahim El Oraby
Citizenship Egyptian
Gender Male
Training Site New Mexico and Florida
Training dates October 30 - November 21, 1995
Purpose of Training Training in potato production
Type of Training Technical

Name Nasser Nada
Citizenship Egyptian
Gender Male
Training Site New Mexico and Florida
Training dates October 30 - November 21, 1995
Purpose of Training Training in potato production
Type of Training Technical

Name Omar Cheater
Citizenship Egyptian
Gender Male
Training Site New Mexico and Florida
Training dates October 30 - November 22, 1995
Purpose of Training Training in potato production
Type of Training Technical

Year III
Second Quarter
December 95 - February 96

Name Fawzy Abdel Maksoud
Citizenship Egyptian
Gender Male
Training Site California and Washington
Training dates February 29 - March 23, 1996
Purpose of Training Training in deciduous production
Type of Training Technical

Name Faisal Hashem Kassem
Citizenship Egyptian
Gender Male
Training Site California and Washington
Training dates February 29 - March 23, 1996
Purpose of Training Training in deciduous production
Type of Training Technical

Name Ahmed Sayed El Mahdy
Citizenship Egyptian
Gender Male
Training Site California and Washington
Training dates February 29 - March 23, 1996
Purpose of Training Training in deciduous production
Type of Training Technical

Name Sameh Labib El Makawy
Citizenship Egyptian
Gender Male
Training Site California and Washington
Training dates February 29 - March 23, 1996
Purpose of Training Training in deciduous production
Type of Training Technical

Name Salem Seliman El Helw
Citizenship Egyptian
Gender Male
Training Site California and Washington
Training dates February 29 - March 23, 1996
Purpose of Training Training in deciduous production
Type of Training Technical

Name El Sayed Abdel Fatah Mohamed
Citizenship Egyptian
Gender Male
Training Site California and Washington
Training dates February 29 - March 23, 1996
Purpose of Training Training in deciduous production
Type of Training Technical

Name Mohamed Abdel Fattah Ibrahim
Citizenship Egyptian
Gender Male
Training Site California and Washington
Training dates February 29 - March 23, 1996
Purpose of Training Training in deciduous production
Type of Training Technical

Third Quarter
March - May 96

Name Saed Gebrel
Citizenship Egyptian
Gender Male
Training Site Washington
Training dates April 22 - May 22, 1996
Purpose of Training Training in poultry production
Type of Training Technical

Name Nabil El Hew
Citizenship Egyptian
Gender Male
Training Site Washington
Training dates April 22 - May 22, 1996
Purpose of Training Training in poultry production
Type of Training Technical

Name Mohamed Salah El Din
Citizenship Egyptian
Gender Male
Training Site Washington
Training dates April 22 - May 22, 1996
Purpose of Training Training in poultry production
Type of Training Technical

Name Abdel Hakem Ahmed
Citizenship Egyptian
Gender Male
Training Site Washington
Training dates April 22 - May 22, 1996
Purpose of Training Training in poultry production
Type of Training Technical

Name Adel Metwaly
Citizenship Egyptian
Gender Male
Training Site Washington
Training dates April 22 - May 22, 1996
Purpose of Training Training in poultry production
Type of Training Technical

Name	Abdel Rahman Ahmed
Citizenship	Egyptian
Gender	Male
Training Site	Washington
Training dates	April 22 - May 22, 1996
Purpose of Training	Training in poultry production
Type of Training	Technical

Fourth Quarter
June - August 96

Name	Gaber Abdallah
Citizenship	Egyptian
Gender	Male
Training Site	Washington
Training dates	May - June, 1996
Purpose of Training	Training in aquaculture production
Type of Training	Technical

Name	Abdel Aziz Fahmy
Citizenship	Egyptian
Gender	Male
Training Site	Washington
Training dates	May - June, 1996
Purpose of Training	Training in aquaculture production
Type of Training	Technical

Name	Samera Rozyka
Citizenship	Egyptian
Gender	Male
Training Site	Washington
Training dates	May - June, 1996
Purpose of Training	Training in aquaculture production
Type of Training	Technical

Name	Nadia Saber
Citizenship	Egyptian
Gender	Male
Training Site	Washington
Training dates	May - June, 1996
Purpose of Training	Training in aquaculture production
Type of Training	Technical

Name	Tarek Shehab El Din
Citizenship	Egyptian
Gender	Male
Training Site	Washington
Training dates	May - June, 1996
Purpose of Training	Training in aquaculture production
Type of Training	Technical

Name Sami El Baz
Citizenship Egyptian
Gender Male
Training Site Washington
Training dates May - June, 1996
Purpose of Training Training in aquaculture production
Type of Training Technical

Name Gamal Abdel Rahman
Citizenship Egyptian
Gender Male
Training Site Washington
Training dates July - August, 1996
Purpose of Training Training in beekeeping production
Type of Training Technical

Name Ahmed El Khouly
Citizenship Egyptian
Gender Male
Training Site Washington
Training dates July - August, 1996
Purpose of Training Training in beekeeping production
Type of Training Technical

Name Maamoun Othman
Citizenship Egyptian
Gender Male
Training Site Washington
Training dates July - August, 1996
Purpose of Training Training in beekeeping production
Type of Training Technical

Name Sobhi Deif
Citizenship Egyptian
Gender Male
Training Site Washington
Training dates July - August, 1996
Purpose of Training Training in beekeeping production
Type of Training Technical

Name Abdel Hakem El Emam
Citizenship Egyptian
Gender Male
Training Site Washington
Training dates July - August, 1996
Purpose of Training Training in beekeeping production
Type of Training Technical

APPENDIX F

SAMPLE OF PARTICIPANT

TRAINEE'S REPORT

**REPORT ON PARTICIPANT TRAINING
IN THE UNITED STATES**

JULY 24 - AUGUST 20, 1996

BEEKEEPING GROUP

BY

MOHAMED OMAR HABBOUN

SUMMARY

Introduction:

1) Beekeeping in Washington State:

It has 1,500 beekeepers. Each beekeeper owns less than 100 beehives in western Washington, while in the eastern regions, beekeepers own more than 1000 beehives. During the winter time, they transport all the beehives to California, since temperature is warmer. Honey is one of the major incomes for beekeepers, also pollen grains, which is gathered and sold for human and animal use. But due to the appearance of diseases, the selling rate of pollen grain has declined around 25%.

2) Beekeeping in North Carolina:

It used to have about 1,800 beehives, but has now decreased to 1,000 due to the existence of different diseases.

Washington State Program:

July 27 - August 7, 1996

We visited bee-yards, wood-ware place, bee supply stores and commercial beekeepers. We also visited a honey processing and extracting plant in Grandview, as well as a large leaf-cutter bee operation.

North Carolina Program:

August 8 - 14:

During our stay in North Carolina, we visited Brushy Bountain Bee Farm, where we discussed the manufacturing of wooden ware of beekeeping equipment. We also saw a wide range of beekeeping tools, feeding devices, food for bees, smokers, protective clothing, drugs and chemicals for treating bee pests and diseases, bottling equipment, containers for honey, and hobby supplies.

We also learned about manufacture of wooden ware, shipping of bee supplies and equipment, queen rearing and queen shipping techniques, comb honey cutting and packaging. We visited North Carolina State University in Raleigh, where they learned about biological control of pests and diseases, natural and artificial ways of queen rearing, pollen substitutes to increase colony strength before nectar flow. We also visited Golden Farms Foods Inc., where we learned about storage and handling of bulk honey, processing of honey, bottling and packaging of fluid honey, distribution and marketing of processed honey.

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

کتابخانه / مرکز اسناد و کتابخانه ملی
جمهوری اسلامی ایران

نشریه با نام روز فقه طهیه تقدیریه عن زیارت ائمه اطهار
الاسلامیه نه لئه ۳/۷/۱۹۹۶ - ۵/۸/۱۹۹۶

در حیات کتابخانه با علم و اطلاع و اطلاع

داد کتابخانه و کتابخانه صادره کتابخانه

محرر / محمد عظیمی ادریس حیرتی
موسسه - سیوه

۱۹۹۶ / ۷ / ۴

BEST AVAILABLE COPY

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

تقرير

عن زيارة الولايات المتحدة لدراسته في الفترة من ٧/٤ - ١٨/٨/١٩٩٦

في إطار مشروع تبادل الخبرات الزراعيه - ٢٠٠٧

مقدمه:

ان مشروع تبادل الخبرات الزراعيه من المبررات المفيده لتقل الخبره العلميه بين الزراعيين بالطريقه المباشره والعملية سواء خبرات مكليه على مستوى المحافظات او على المستوى الدولى حيث يتم به تجميع المفاهيم العلميه المتوارثه قديماً حيث تعتبر جمهورية مصر العربيه من اقدم المناطم المربيه للثقل حيث رجعت مملكة النخل منقوشه بالآثار المصريه وكذا الخبرات المكليه حديثاً من خلال التعامل مع أنواع من النخل تختلف عن النخل المصرى أدخل حديثاً لمصر وتبادل الخبرات الدوليه مع الولايات المتده الاكبريه لغير مدخلها ما لا كاي سارات وخبرات ولتقل التكنولوجيا المربيه خاصة في مجال التصنيع.

مدخل التقرير

- ١- النخل بصفه عامه بالولايات التي تم زيارتها (واشنطن - نورث كارولينا)
- ٢- مناظم الزيارات وقايله الخالين - الزيارات الجانيه العلميه بمجالات اخرى
- ٣- الخبرات المكليه
- ٤- التقييم والتوصيات

١- النخل بولاية واشنطن ونورث كارولينا

١- ولاية واشنطن:

يوجد بها حوالي ١٥٠ نخال وتملكون ما يزيد عن ١٠٠٠٠٠ خليه ووجه تسمي لولايه نجد غريب لولايه: معظم الخالين يملكون أقل من ١٠٠ خليه
شبه الولايه الخالين يملكون أكثر من ١٠٠٠٠ خليه وذلك لزيادة مساحة المربى عن غريب لولايه.

في الشمامس معظم الولايه شرقاً وغرباً يتم نقل الخالين الى ولاية كاليفورنيا حيث درجه الحراره مناسبه وكذا لتلقيح اشجار النوع (الوز - البنته) وهناك يعتبر الفل مصدر الدخل الرئيس للخالين بالولايه بجانب حبوب اللقاح التي تمثل أيضاً دخل للخالين حيث يتم جمع سميات كبيره من حبوب اللقاح وبيعها لمد سحذام الآدمس والسيو الخب
ولكن لا تشاء الا سراض فقد انخفض عدد الخالين بنسبه ٥٠٪ وكذا عدد الخالين بنسبه ٢٠٪

وطاقتها ما كتبه الفيزيائيون في الورود بقولهم ٩٩ براون
في حشره وقائمه.

شعره اشراج الخلية لديه مع له/ع.أ.
رايكن يقوم بزراعة مع حكاية ٣ الصنع والبرسيم الجليزي ،
فانك ثم ما هذه نوع شبيه النخل يسم قاطع الاوراق وهو عبارة عن حشره
سوداوي ومرتقه ٣ الجانيم وهو كونه ٣ قور ورتخالات تزي في خلايا
خبيثه طول الخلية ٣-٤-٥ تحتوي على قنات يعرفه الخلية وهذه القنات
تعيش في حبة خفالات يتم هذا النوع ٣ الحشرات في تلقيح المائل
خلية التلقيح وهو يندس في زراعات البرسيم الجليزي . كما انه يملك
حفظ هذا النوع في دريه حارة ٥-٧-٢٠٧ طين وجود زهره للتلقيح

١٩٩٦ / ٨ / ٢

زيارة جامعة ولاية واشنطن

لم تنج بي الاستفاده العلميه الكامله حيث تم شرح تطور النخل وتقسيمه
وطوائفه ولم يتعرض الى النواحي التطبيقيه الا حثري

June/Colony

١٩٩٦ / ٨ / ٢ زيارة شمال لايه ورشه تصنع كابل
تم مشاهده عمليه تصنع الخليا الخبيثه وكذلك تثبيت الشع برزم ملك
حيث البرازيل به تجربه لتثبيت الشع .

يترك الشع في البلاستيك واهميه انه يتم استخدامه عدة مرات
لديه ١٠٠٠ خليه يقوم ارسال الخليا الى كاليفورنيا في شرفيند وذلك
لدره البرود في ولاية واشنطن

له فراك كامل يقوم بفرز ٩٠ برازر وله خط كامل من التجهيه حيث
شعا قد مع المطاعم لبيع العسل ثم بموات خاصه .

يعتبر شمال ماهر واقتصاده حيث يتغل كل ما لديه لخدمه هدفه .

١٩٩٦-٨-١٤ زيارة كولي دام (سد تخزين مياه)

تكويناته يشبه الد العالي المصري وربما قد استفاد الخبراء الايريكيات
من نصيبات الد العالي وقاموا بنشائه لديهم وهذا واضح من الفيلم الذي
تم عرضه في تغزي وولاية واشنطن وولاية ادر حيد باليه كما يتم
تغذيه ولاية ماسي - اوسر حيد - كاليفورنيا - نيفادا بالكر باو
رصالة العدمه هذه الدود في البيانات الآفنه

آلا وولاية نورث كارولينا

يوجد بالولاية حوالي 18 خلية ولأن بسبب انتشار الأمراض اتفقت
 العديد من الخلايا ولعظم الخالين تعتبر مرته الخاله هو ايه. بجانب
 على مصدر الأرزق وهناك ارتباط وعيهم بين جامعة نورث كارولينا
 والخالين حيث يتم تدريب ما يقرب من 50 خال بالجامعة على ثلاث مراحل
 ويعرف تكون الخال مرشد الأخل له الباقيين كما أن كل مدينة بالولاية يرك
 اطاره زراعية من اجل نقل الخبره الخالين.

الزيارات الميدانية:

1996/7/29 - زيارة ورشة تماره لاستاج الخلايا الخشبية
 ثم تقعد الورشة حيث يتم تصنع الخلايا الخشبية بما جميعه وتعد بالعل
 بر يد هلاف نخل حيث لديهم نخل صغير هو ال 10 خلية بموقع بعيد عن نورث
 وسط اجنار خشبية وصنوع الطائ ولديه أيضا قران صغير لفرز لعل

ك- زيارة كل سبع تجات العسل وأدوات خاله
 ثم مشاهدة العوات المختلفه لعل الخلل والمعرفه التي صه بذلك وكذا اعظم
 أدوات المخدمه في الخاله. لديه أيضا نخل به 3 حليه نوع الطائي - كرسولي

1996/7/30 - زيارة كل سبع ادوات خاله ورشه لتجات العسل ولديه ثم مشاهدة
 انقلبات العليه المختلفه ولديه نخل صغير تكون 5 حليه نوع الطائي

1996/7/31 - زيارة نخل تكامل مديته جراندي قيو
 معظم الخالين لديهم ورشه تماره لاستاج الخلايا الخشبية اللازمه لهم ولا صلاح
 الصاديق الخشبية المتعلمه ولكن يوجد النخل - ثم مشاهدة الكاف
 اوتو ايميلك صاحب النخل 20 خليه موزعه في منطقتة نوع الطائي - قوتازه
 لديه ياره حامله تلك الحديد العنبر قابل للصدا تتاحيل بعينها
 بحلول 2000 كيفه 15 خليه ويستقل بالياره الى سا لحم الخلايا التغذيه
 حاجات نوعه الغذائية وموضوعه الصاج الخليله من الاخل خشبية بركه
 دشمه داخله على الجوانب منه يقف على نخل اشجار التغذيه
 تالان - لديه فدان نخل لعل الخلل يبدأ منه ما كونه أكثر للبرادير يشوي الى
 بايل التبعيه جميع مراحلها حيث اشجار الانتقال الى البرابل يتم فصل الشمع
 مفرده والعسل مفرده ايضا بدمه شوايشه ولكن يغير خا

١٩٩٦/٨/٥

زيارة مصنع تعبأة عمل

طاقة الوضع ٢ مليون برميل عمل - عند الرمييل ٣٠٠ عمل فلام وكل
عبوة برميل بدون غلظت تاريخ جمع العمل - الزهره انه جمع من - المكان
منظافه النعنه خلال العام
العامله بالمصنع ١٥ عامله يعمل او ما يتكلم في كل مرآله من
التعبئه في عبوات ثقله

تم تفقد جميع مراحل التصنيع - تحين العمل الى ويره لا تزيد عن ٥٥ م
منه لا يفقد الانواع من خزان ترسيب الشوائب (الفلتره) الى
التعبئه في عبوات صغيره الاستييه لا صفاء على تيك موضع فيه تلامه الإنتاج
والزهره انه جمع من

١٩٩٦/٨/٦

زيارة مثل بجوار مزرعه اتاج تقادي جزر و آخره لسبع جزر طاج
يتم فلام الخلل لتلغ زهره تقادي الجزر بجانب اتاج بعمل
تم التوجه الى منطقه جبلية بكر اجبار كشيده وانواع عديده
الذهاره حيث يقوم ترسيب الخلل تلك المنطقه وهو نوع ايطاط

١٩٩٦/٨/٨

زيارة مصنع تعبأة عمل بولاية نورث كارولينا
شركه جولدن فود

المصنع يعمل اوثوماتيكيا - طاقة المصنع ١٠٠٠٠٠ زجاجه سعة
٨٠٠٠٠٠
مصدر العمل : - كل الولايات المتجه للعمل
العالمه : - ٥٠٠٠٠ عامله

١٩٩٦/٨/٨

زيارة مشاهه كل بيع ادوات فحاله ورشهم بماره وموقعه في أعلى
الخل وتغير أكبر مشاهه بولاية نورث كارولينا
المنشاهه شره - مرآله - مونتنتن

١٩٩٦/٨/٨ زيارة مزرعه مغل يقوم ترسيب الخلل بفرصه اتاج عمل وترسيب ملكات
المنشاهه شره - مرآله - مونتنتن

١٩٩٦ / ١٨ / ١٣

زيارة سوق القطيار ومثل

تم مشاهدة سوق القطيار فيه بنايات رئيسة للبيع كذلك تقادي حفر وخلاصه
تم ثم ارتفع الى مثل نفوس صاحبه ليعرض العمل وكان يوماً سهلاً

١٩٩٦ / ١٨ / ١٣

زيارة مشاة لبيع العمل وادوية النمل وكيفية اعداد العمل في مجلات
وعمل بقضايا شعبة

زيارة مثل

لايه ٨٠ عليه ولديه ورشة تجاره كالمه لتصبح الخلاب
شركة ابيع الخلاب ٥ - ٤ - ٤

١٩٩٦ / ١٨ / ١٥

بعد لعوده الى واشنطن نظم العاصمه
تم مقابلة السيد كلاله التي قامت بالشرح عن اعداد المرشد الزراعي
وكيفية التعامل مع الآخريين وهدى الاستفاده لنقل الحيزه العمليه
للخارجين

١٩٩٦ / ١٨ / ١٦

الاصحاب الى مركز بحوث الخلل بولاية بيرلاند
او شخ المتصقون ان بالولاية هو الى ٨ عليه معظمهم يتقلون فلاهم الى
ولاية فلوريدوا لو يوجد برعمه كافي وتلصق الحفر والقواته بالولاية
تم مشاهدة الاسراره المختلفه بالمعمل
سرفه الحفنه الطاشريه
سرفه التعفن الامزني

التوقف عن الاكثريه تحت الميكروكوب
الفاروا وكيفية استخدام الأيتان ويجب سقيلاً عملاً
استخدامه ولايدعم ايجاد حلول اخرى مع لايتكتيب الفاروا ماعه
بالرغم ان سؤو صولو عن تاريخهم لاسباب نفوس الخلل هل س الفاروا
او ضعف الخلل

مشاهدة كيفية نقل اليرقات من اليوسه الى اليراستيكه
لرئيسه الملكات

١٢- الزراعات الجاذبية العلمية بمحلات أخرى .

- ١- زراعة مزروعة ايطار حلاية بولاية واسط نظم
- المزرعة تشيع جمعية يتخى الألبان كرتية
- طاقه المزرعة ٩٠ رأس من حلاية والباني أصله وطوم
- هو يسط انتاج لبقرة ٦٠ لبن
- يتم تسويق الألبان بمدينة واسط بالولاية
- التغذية : سباح + برسيم جازي + تبن مصنع
- التلقيح : صناع

١٣- الفطاط : ٦-٧ أسابيع حيث بعد الترسيد العول يتاح طوم والاثاث

تقسم الى ايقار حسب الاحتياج من ثم تغذيته حسب كمية الاحتياج

عملية الحليب : صناع
 هناك جهاز يعمل كل عمليات الحليب - كم دقيقه للحليب - كمية اللبن - عند اشتراك
 اللبن من الفرع يترك الجواز الطمعات دون تدخل الانسان وهذا ما يجب الاستفاده
 منه حيث مشكلة الحليب الصناع يمر هو نزول الدم في خزانه الحليب .
 وبالطبع هناك تقسيم كامل لبنين للظواهر للاعمار والغرض من الترسيد
 العمال الكليه لادارة المزرعة ٦ افراد
 ن- زياره محل تفريخ اجمال : بمدينة انكس بولاية واسط
 تم مشاهد بطاريات التفريخ وكذا احوال اعداد الزريعة ولم تقابل مؤول
 عن الترسيد (التعلز)

١٤- الجبرات المكتسبه :

١٥- في مجال النقل :

كيفية مقارمة الامراضه و التثقف عن الظواهر المرضيه وهذا ما يجب
 التركيز عليه في نقل الخيره للعالمين حيث بالرغم من التقدم العلمى بالولايات
 المتحده الا انه فقدت اعداد كبيره تصل في بعض المناطق الى ٦٠-٧٠% الخلايا
 وهذا اثر على انتاج الفسل وكذا على كمال الحضرة والفائده
 ن- في حالة استخدام هذا صم لا يفرق بين الواحه وهذا عند صلاح خالسا
 لتحصن الواحه في تربية النقل المصنوع فبانه يمكن تغليه الخلايا و عمل جاف
 ملات الخلية الندى من يمكن الحصول على عمل بدون حخته به
 ح- يجب الانتقاء الكامل بزرعة اجسام الكافور ذات الازهار المختلفه
 على مدار اعمار من يكون لصل واحه سيره نيره مع المناطم الاخرى بالرغم من قلة الانتاج

١- التقييم المتخصص بالحصول على جوي اللقاح في أثناء زهرة اجنار البلح اكثره الجيوب للاستفادة من
 هذا التقييم بتغير الملكات سنوياً وسم متاحل مختلفه لأكايت جوييه ونشاط
 للكلية من لا يحدث انفرالات وراثيه
 ٢- الارشاد الوشيعر بالحيات العلمية والبحثيه للكشف الدرسي عم الامراض
 ٣- الامتحان لعمليه فرز العمل م خلال فترات من تامين توفير جوي للخلايا
 عند المادة البراوير وكي اساسي سمع بعد الفرز
 ٤- في مجال تربية الاقطار؛ العمليه لتنظيمه لمباني الطائر - بعض المبادئي في مجال كشف عم الامراض
 ٥- التقييم والتوصيات

١- التقييم :
 ١- مدة الزيارة :
 كانه لزياره كل شاطح مربيه النخل و للتقل م منطقه
 لخدمة لاهده فاجي آفرت ليت في مجال النخل

٢- التوجيه لتنظيمه للدرسه :
 الرحله منظمه للغايه وقد خدم الترجم المرافع هدهه / جلال موه البربري
 في الترجيم الفوريه لكل ماده علميه سما اياته اتاح الفرصه للبيغ للتعرف
 عم اماكم مديه بالولايات المزاره
 ٣- كان م المبان زياره اناكم علميه تنقصه ونزاع في تخصصات آفرت
 لكه فترات علميه لاتش الوقت ونود انه تراء في برنامج لزيارات
 للزلا والاشريم
 ٤- لدم اختيار ولايه كالفورنيا بدلا م ولايه نورث كارولينا ملكات
 الاستفاده أكثر لتعدد الزراعات والمالات مآفرت بالولايه حيث
 المناخ والزراعات مآيه اذ م كبير م ماع جهوريه مصر لشميه

٥- التوصيات
 ١- لا يدم و جود ادرنياط وشيعر م الجوات العلميه المتخصصه والثالثه
 بمجموعه من العربيه عامه وعمل لغائات دوريه للوقوف على الجديد
 في مجال الامراض
 ٢- وضع الرقايه الكافيه لعدم وجود ملكات م خارج الجمهوريه
 ٣- لا تنتشر الامراض
 ٤- توفرت جهه علميه تنقصه تمول م الحكومه لاحتياج ملكات من نوع جيد
 ولقيته لتوثقها للثالثه م لا يلبا و الي استيراد م الخارج

٤- الاهتمام بالدراسات العلمية في مجال النقل داخل الجمهورية بالمحافظات
والمناطق من تغطية أكبر عدد من المناطق.
٥- الاهتمام ببنات إعمار العمل وعدم تذبذبه وذلك
لقيام جميعيات لتوطين العمل في كل مكان.
٦- الرقابة الكاملة لمناطق تعبئة العمل - حيث لجوده المنتج
وشكل العبوة - مع تبيان ان عبوة العمل - المنتجات التصديرية
للناجح

وفي النهاية لا بد ان أقدم خالص الشكر والتقدير
للذين أتاحوا لي الفرصة الكاملة للقيام بزيارة الولايات
المتممه الاصلية وعلى رأسهم السيد الدكتور / نائب
رئيس الوزراء ووزير الزراعة الدكتور يوسف والي
والفائمين على تنفيذ مشروع تبادل الخبرات الزراعيه -

محمد محمد زراعي

محمد محمد بن ادريس حيون

1996/7/21

مديرية الزراعة - واحدة حيوه
مديرية الزراعة بطرح - الاداره الزراعيه حيوه

APPENDIX G

LOCAL PARTICIPANT GROUPS

DURING YEAR III

**Farmer to Farmer Program
In-Country Participant Training
September 95 - August 96**

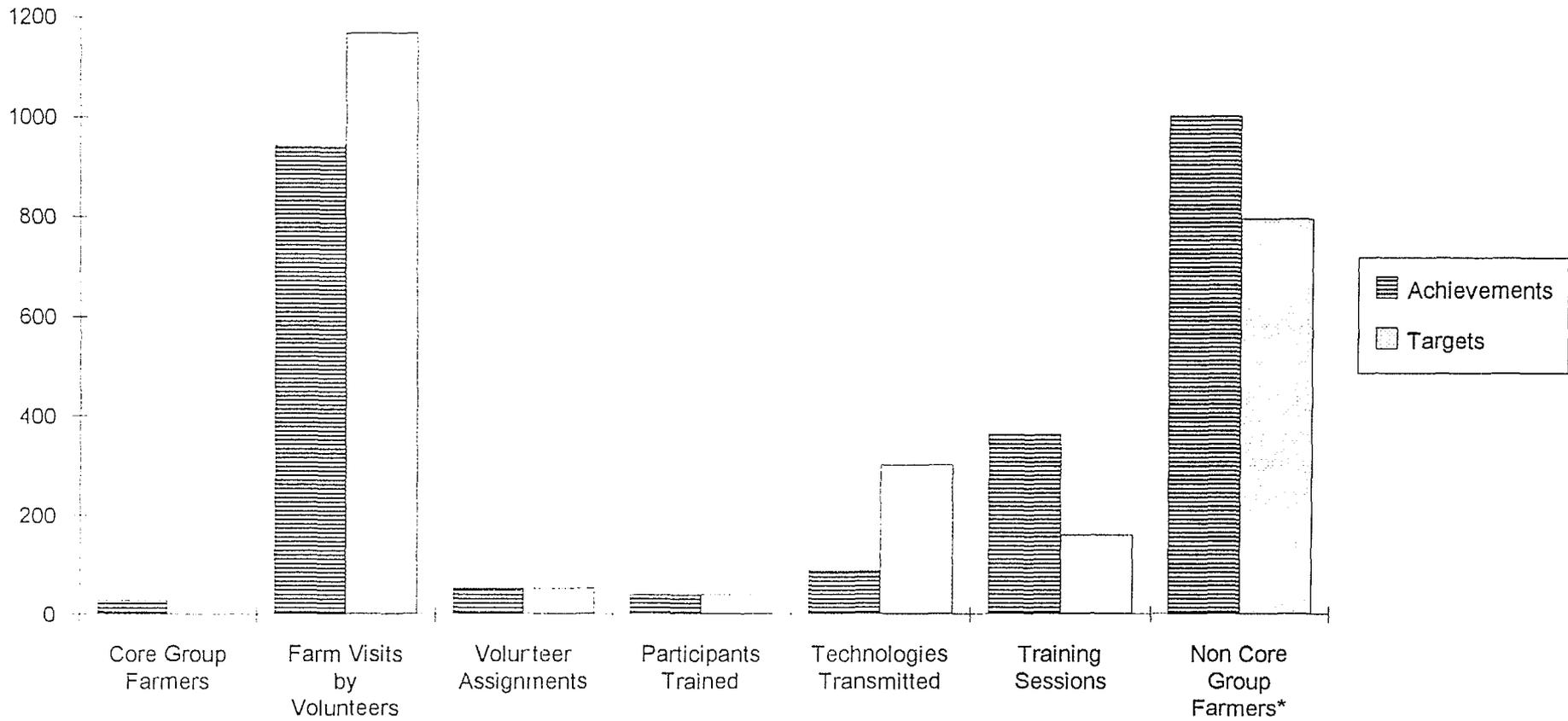
Technical Focus	Participants		Location	
	Farmers	Ext Agents	From	To
Tomato September 1995	5	1	Alex	Fayoum, Menia
Poultry November 1995	4	2	Alex	Ism, Sharkia, Qalubia
Tomato December 1995	6	2	Menia	Ismailia
Farm Management January 1996	15	0	Menia	Menia
Beekeeping March 1996	6	1	Menia	Tanta, Qalubia, Sharkia
Beekeeping June 1996	6	2	Ismailia, Alexandria	Menia
Total	42	8		

Total Achieved = 50

APPENDIX H

ACHIEVEMENTS VERSUS TARGETS

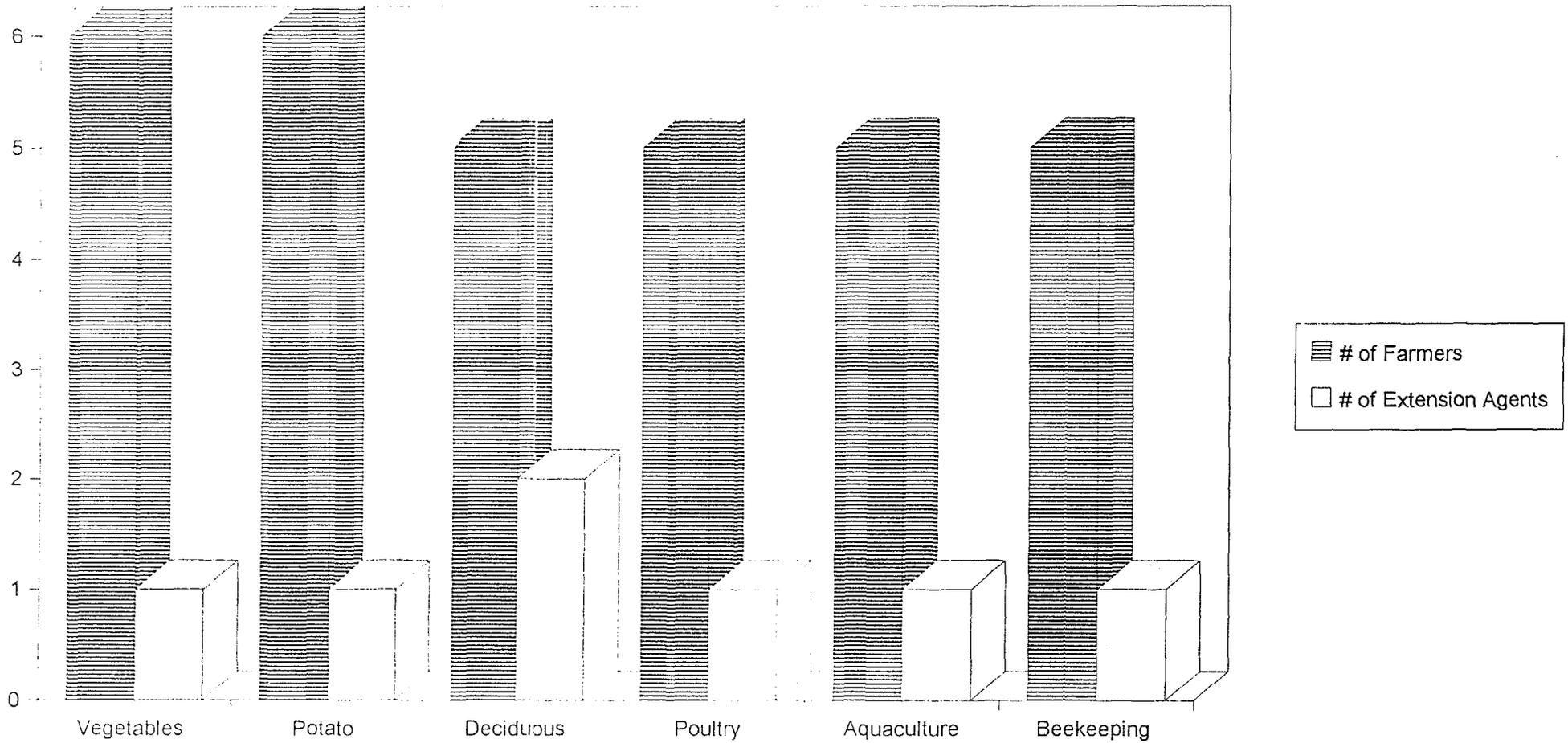
Achievements Versus Targets



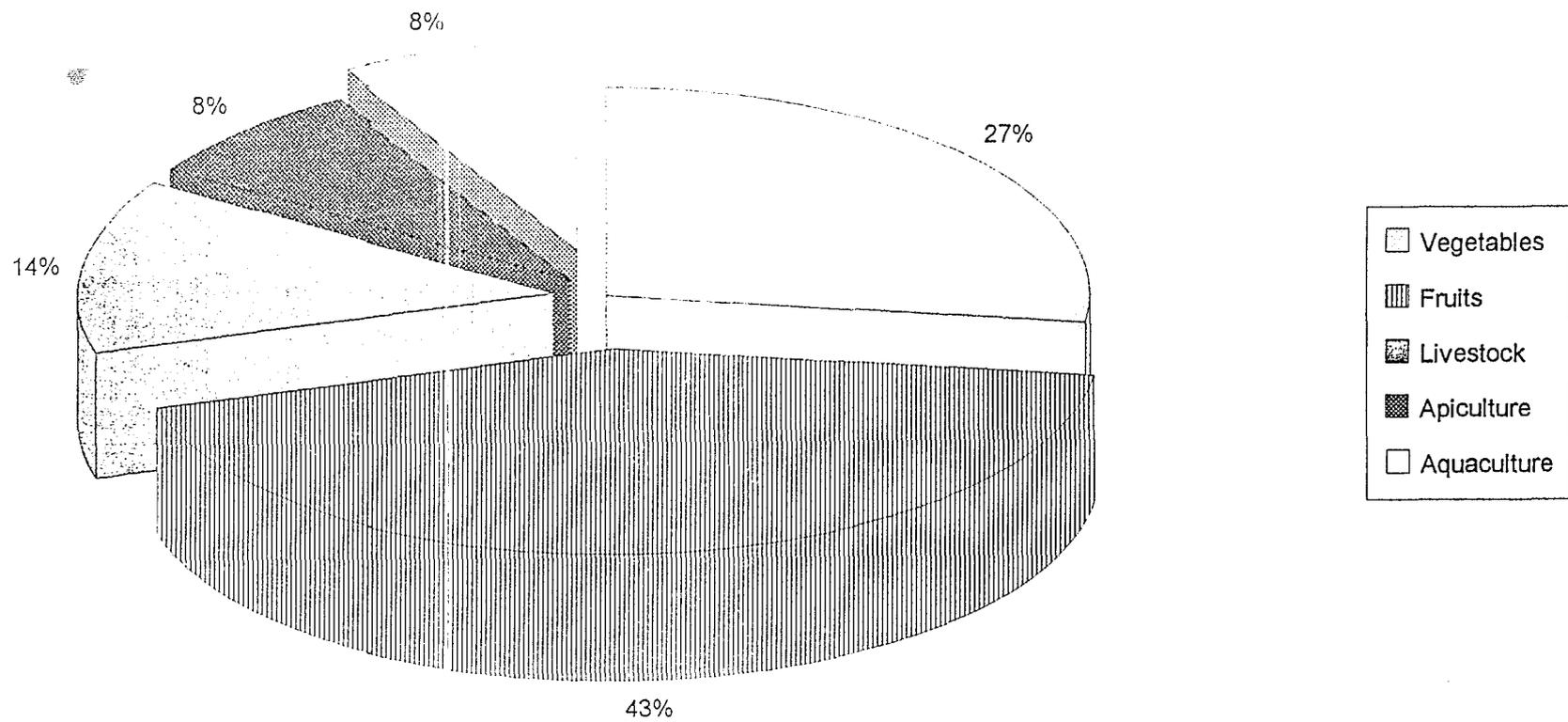
No. of non core group farmers is 4,214

September 1995 - August 1996

of Participants By Commodity



of U.S. Volunteers by Commodity



September 1995 - August 1996



BEST AVAILABLE COPY

of Participants By Sex

