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FINAL REPORT

by

RICHARD J. PETERS

*regarding my
work as
the*

SENIOR TECHNICAL REPRESENTATIVE

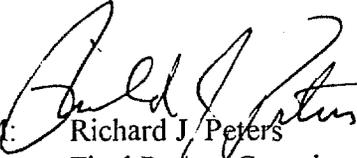
for the period

August 1994 to May 31, 1995

June 7, 1995

REPORT.FINAL

June 6, 1995


FROM: Richard J. Peters
RE: Final Report Covering August 1, 1994-May 31, 1995
TO: Abrar Sattar, Research Associate, Sigma One Corporation

I. INTRODUCTION

This final report is not a final report for the Agricultural Marketing Development Project, rather, it is my final report due to an early departure from Jordan.

I have rarely loved a job as much as this one in Jordan. It was a great pleasure to work with Jordan's public and private sector in order to enhance exports of quality fresh produce. The biggest challenge in these past ten months has been the work with the "baby" Exporters Association. At the same time as loving my work, it was also an experience in high stress because of an intensive working schedule and because of the desire to achieve objectives which sometimes encountered confrontation. Please refer to my REPORT.703 dated August 3, 1994 page 3.

Contents of this report represent my personal and professional views, and they are based on approximately 62 weekly and bi-weekly reports sent to the Sigma One Corporation, USAID-Amman, the Agricultural Marketing Organization, the Exporters Association, and others. Opinions expressed in this report are mine and mine alone.



Photo # 1: Mr. Fakhri Nustas, AMDP Project Administrator; and Mr. Jamil Zureigat, Project Director; have proven to be sterling characters in the implementation of the Agricultural Marketing Development Project (AMDP). Fakhri has always provided backstopping, and he has faithfully transmitted developmental concepts to the Association as well as to AMO. Furthermore, Fakhri's impeccable honesty has always provided USAID and the Sigma One Corporation with a reliable accounting system. I have a great trust in both men's integrity. Jamil Zureigat has proven to be a source of wise counsel and insight into the inner workings of AMO, and he has become increasingly helpful in our effort to support development of the Exporter's Association.

II. DISCUSSION

Project activities in the reporting period continually accelerated despite difficulties of various types. Following will be a discussion of the major activities.

EXPORTER'S ASSOCIATION

The Exporters Association was established through the First General Assembly on March 24, 1994. In the first year as many as 123 farmer and exporter members signed up at a cost of 500 JD each. The final count for the second year will be determined by the Second General Assembly set for June 15, 1995. At the moment there are more than 80 members who have paid dues for this second year. There remain several days before the deadline, and the total could reach 90.

We have attempted to involve the Association in the development and implementation of a variety of activities requiring active participation from the private sector.

Production and Marketing Activities

Production and marketing activities are, rightfully, the chief responsibility of the private sector. As the Association grows in strength it can begin to place demands on the public sector for support in technology research and technology, as well as in other areas where the Public Sector should be providing support.

Exhibitions, Trial Marketing & Importer Contact Trips

At the beginning of this reporting period, we were still talking in terms of discrete activities such as exhibitions, trial shipments and importer contact trips. The Importer Contact Trip to Russia was approved in August. That same month a 6-member group from the Exporters Association traveled to Malaysia and Indonesia. They produced both a written and oral report on their return indicating there was a market for grapes, citrus, apples, cauliflower and carrots. Plans for the Russia trip were aborted by the Association due to a number of problems.

Various trial shipments were proposed and then abandoned. A trial shipment to Malaysia did not occur because the price of citrus was not competitive. Six trial shipments of tomatoes to Russia were ultimately aborted because the market prices were too low, and because the exporter was not satisfied with the idea that the project would not cover the risk involved. Over the reporting period our concepts evolved. Trial shipments which



Photo # 2: Maha Shawareb, Executive Director of the Exporter's Association; Nabil Atieh from the Amman Central Market; Tala't Dougmush, a major exporter; and Imad Yaseen of AMO; discuss the plans for the Dubai Spring Fair layout. Maha Shawareb has proven to be an ideal choice for the executive director job. She has worked very hard, and traveled to Dubai for this exhibition about 30 days after her second child was born.

attempted to demonstrate the feasibility of placing quality produce in a foreign port evolved to the idea of trial marketing shipments (TMS), which have the concept of quality produce to arrive on the shelf of a foreign supermarket, including promotion of the product in that supermarket. Further evolution is to attempt TMS and Importer Contact Trips around selected exhibitions. The Dubai Spring Fair served as the first successful exercise for this approach. The event is described in a separate report. A second and third activity of this nature has been proposed for August in Russia and for Germany in October. Participation in an exhibition requires a heavy contribution from the private sector. That led to our conclusion that decisions about participation in exhibitions should be made by the Association rather than by AMO. AMO proposed participation in two fairs which the Association rejected. The first was AgroFish in Abu Dhabi, and the second was Bahrain. The Association did accept AMO's suggestion for Dubai, Russia and for Germany.

Grapes

When I first arrived in Jordan in May 1993 I visited the grape harvest at the farm of Abu Ghazaleh in the Jordan Valley. I was impressed by both the quality and timing of production. Later, a scope of work was developed to examine production and market potential for grapes in Jordan. The studies were completed at the beginning of this reporting period. Both studies were very positive about the future expansion of seedless table grapes in Jordan.

A Grape Committee within the Exporter's Association under the chairmanship of Iyad Abu Ali was established in November. Among other things, this committee nominated and screened applicants for grape training, invited a 2-man Israeli delegation to visit Jordan, and responded with a June date for a trip to Israel.

The Grape Committee also worked with VOCA when Martin Krieg came to Amman in January to demonstrate California style grape pruning techniques.

Grape Feasibility Study

AMDP's development of the grape production and marketing studies as well as other grape activities has stimulated a great deal of farmer interest. Many farmers would like to enter grape production, but they do not have access to hard information about the costs such an investment would entail.

A simple feasibility study is required. Perhaps the most important component of such a study would be a spreadsheet showing costs and anticipated income over a 20 year period. A spread sheet for PY Farm development of Red Flame Seedless is attached as an example.



Photo # 3: Six Jordanian producers and exporters traveled to Malaysia and to Indonesia in order to develop contacts for future exports to those countries. They reported in writing as well as verbally as shown here.

The best way to develop this spread sheet in Jordan would be to collect the data from various growers, and then modify the final document to include all the elements required to reach optimum production. I had proposed that Dr. Ahmed Araji carry out this work, and the Grape Committee of the Exporters Association agreed. The Sigma One Corporation, however, proposed a different approach. The important point is that seedless grape production has a lot of potential in Jordan. AMDP should provide as much information as possible so that producers can make informed decisions.

Greenhouse Committee

Based on the success already experienced with the Grape Committee, I suggested to the Association they establish a Greenhouse Committee. Such a committee within the Association would help focus the need for flow of technological information, and it would also serve to identify new market opportunities.

Data Collection

The Exporters Association decided early to develop data on crops available as well as on export data of all Association members. A first effort was initiated, but failed because it was summer and Jordan Valley Farmers were not available. In October Mr. Sbeinati, recommended by Dr. Lozi, was employed to collect and process data for the Association. By November most farmer members of the Association had been surveyed. When Sbeinati began to work with data collection from exporters he met a great deal of resistance. Eventually he was able to obtain most of the data from AMO files. By mid-January he was processing data for delivery of information to the members.

The Jordan Valley Farmers Association requested a computer. It was proposed that JVFA join the Exporters Association. With membership in the Association, the JVFA would be able to obtain a computer from the Association. This computer would be linked to the Association by modem so that the person collecting data would be able to send information to the Association computer. This has not yet been accomplished. Sbeinati resigned on February 1. It was proposed to replace him. The Sigma One Corporation suspended employment of a new person. Furthermore, the Association has not followed through with priority on this activity.

Pre-Cooler

In 1992-1993 AMDP constructed a mobile pre-cooler based on a 40-ft refrigerated trailer. The purpose of the pre-cooler is to demonstrate the efficacy of pre-cooling in order to convince producers and exporters of the importance of building their own units.

AMO, as a Government Organization, is not organized in such a way to manage use of the pre-cooler. The Association was requested to assume management of the pre-cooler with technical supervision from AMO's office of Post Harvest Technology.

Use of the pre-cooler was promoted by Ronda Bashiti at the Exporters Association. Use was heavy in the September-October period, but declined to zero use as cooler weather set in. We attempted to demonstrate that field heat was still a problem, but interest in the pre-cooler use did not begin again until February when the pre-cooler was displayed at the multi-span greenhouses of Mazen Odeh. Since February demand has accelerated and continues strong today, particularly from those shipping seedless grapes.

Fee Collection

Initially, we contacted VOCA to obtain the services of a volunteer to conduct an analysis of how the Association could develop self sufficiency. The study, ultimately, was conducted by Dr. Ahmed Araji on a voluntary basis. The study was completed and presented to the Board of Directors.

HAND'S ON TRAINING

Hand's on training in this project extension was dogged by several false starts. In 1994 a goal was established to provide hand's on training for grape production, flower production, pre-cooler manufacture training, pesticide residue certification training and newsletter production training.

Grapes

Jim Surabian recommended hand's on training in California. His recommendation was to conduct seasonal training programs so that Jordanian grape growers would have a comprehensive experience with all elements of grape production. The first program was to take place in late 1994 early 1995. Unfortunately, due to the timing, this program could not be organized to take advantage of the grape pruning period in California.

The Grape Committee of the Exporters Association then recommended a second training program for the month of April. Ultimately, the Sigma One Corporation contracted with the University of California, Davis to organize a program which took place in May 1995. Reports from the University of California as well as from the participants indicate this program was very successful.

Flowers

The flower feasibility study conducted by HVH recommended that AMDP work selectively with flower producers who had the best chance to enter the export market. The Sigma One Corporation organized a program to train four participants. PIO/Ps are now with USAID for approval.

Further training under the project is essential. Selection of participants could be conducted through the Exporter's Association, but participants do not need to be limited to Association membership.

DATES

Tentatively, a date production and marketing consultant was to arrive here in June. I'm not certain as to the status of that situation. It would be very useful for the date consultant to visit Israel and the West Bank during his time in Jordan in order to see what the competition is doing.



Photo # 4. The Table Grape Committee of the Exporter's Association meets regularly at the Exporter's Association to discuss and decide on a variety of issues. Sharing information on grape production technologies and marketing information are obvious activities of this committee. Recently, the Grape Committee nominated a number of grape producers for participation in a three week training program in California. The program was organized by the University of California at Davis. The University staff involved were very complimentary of the group, and the group was equally complimentary of the program.

Participants in this meeting include Humam Nabulsi of Abu Ghazaleh Farms; Ahmed Alayan; Zaid Abdou; Iyad Abu Ali, RUM Farms and Grape Committee Chairman; Laurette Mansour, Secretary to AMDP as well as for the Grape Committee; Maha Shawareh, Executive Director of the Exporter's Association; Mazen Al-Wer; and Jarius Tadrus of Samir Kawar farms.

TRADE FAIR

A trade fair was proposed in the Technical Services Proposal of the Sigma One Corporation. In August AMDP requested guidance from AMO. AMO submitted a detailed plan suggesting a fair in May of 1995. Sigma One Corporation responded that planning time should be increased to May 1996. AMO thought that a trade fair could be fully funded by AMDP. The idea was dropped when it became clear that AMDP did not have the finances to pay for a trade fair. The only financing that was potentially available from Sigma One was the provision of consultants to help organize and operate the fair.

ISRAEL

High level meetings between Jordan and Israel with sponsorship by the United States took place in the summer and fall of 1994. I learned that the Israeli Director General of the Ministry of Agriculture had proposed Jordanian access to Israeli marketing channels into the Western European Union in exchange for Israeli access to Jordanian marketing channels into the Gulf Countries and possibly into other parts of the Islamic world.

The peace treaty between Jordan and Israel was signed on October 26, 1994. Initially, it appeared that some private sector people were anxious to move ahead, while the Government sector appeared to be more cautious. The Director General of the Agricultural Marketing Organization requested me to visit Israel and gather names of agricultural supply companies as well as exporting entities.

In November Israel, announced a decision to permit the import of fresh produce. Apples and pears arrived from Europe. A quota of 500 metric tons of tomatoes was issued for Holland, France and Jordan. Ultimately, Jordan only exported a very small quantity of tomatoes because their own tomato crop had suffered the same untimely rain damage as the Israeli crop.

Also in November, AGREXCO solicited the names of leading Jordanian producers. Some producers refused to give their names because of their loyalty to Jordanian exporters and because they were concerned that Israel would take only their top produce leaving the farmers the problem to dispose of the lower quality produce elsewhere.

By December, Jordan began initial discussion about various protocols including agricultural trade. AMDP proposed the development of a study to help negotiators in their discussions. A scope of work was prepared, and Dr. Georges Theodory was proposed. Unfortunately, he was involved with other work, and the idea was not pursued because of the timing involved.

In February 1995, I participated with USDA in a visit to Israel and Jordan to better understand what could be done to facilitate the growth of trade between the two countries. A separate report on that work was prepared.

Subsequently, at AMDP's initiative, USAID approved a visit to Israel. Actual implementation of this visit has been postponed to an "auspicious" moment. Hopefully, there will be more than a "cold peace".

VOCA

VOCA staff came to Jordan in September to organize assistance to Jordan's grape and flower production sectors. Martin Krieg arrived in January for a month-long activity to train growers in pruning of grapes. Feedback on this pruning is positive. Krieg posted his own report on the activity. Further work by VOCA in connection with AMDP's activity did not take place.

MARKET ANALYSES

Market analyses are a responsibility of the Agricultural Marketing Organization's Office of Studies and Statistics. Two representatives from that office conducted a study of market in the Gulf States during the previous reporting period. Based on the results, it was recommended that further market studies should be led by a qualified consultant.

AMO requested a scope of work for Eastern Europe, the CIS States, and for South East Asia in September. A scope of work for Russia was sent to USAID for approval in September. A study for SE Asia was sent in October. Both were approved by USAID in October with the understanding that Dr. Ahmed Arajji would conduct at least one of the studies. It was then decided to begin with the SE Asia study because of the cold weather in Russia. Sigma One Corporation indicated that the second study could not be carried out because of lack of funding.

Arajji initiated the first planning sessions for the SE Asia trip in November. Together with Akef Zu'bi of AMO's Studies and Statistics a January date for travel to SE Asia was

suggested. Two planning sessions in December led to the decision that 20 working days in Thailand, Malaysia Singapore and Indonesia would be sufficient. Three AMO staff members were proposed to the Director General for this trip. Dr. Lozi approved Akef Zu'bi, Raed Hattar, and Atef Shunnaq. Zaid Abdou was named to participate as a representative of the Exporters Association. Plans for departure were pushed ahead to March 1 because of Ramadan.

On March 1, the US Agricultural Attache in Indonesia, objected to US financing of competition with US producers. The newly developing German project was requested to participate and fund the Indonesia component, but they declined. Plans for departure were again postponed to March 14.

The group finally departed on March 15 without Akef Zu'bi. They successfully completed their field work and returned to Amman on April 16. Dr. Araji has been working to complete the report with assistance from Raed Hattar. Raed Hattar has frequently had to work on other AMO activities which prolonged completion of the report. A comprehensive market study of fresh fruit and vegetable in selected South East Asian countries will be ready for release on June 7, 1995.

INVESTMENT PROMOTION

Investment promotion was to have been a major undertaking in this final phase of the project. Unfortunately, this has not occurred for a variety of reasons. A major reason, of course, is that the investment climate in Jordan has not improved sufficiently. We did, however, take advantage of every available opportunity that presented itself. I will present the following examples:

Melon Production and Marketing

In 1993, Dr. David L. Franklin, President of the Sigma One Corporation, and I visited with Lindemann in Los Banos, CA. Lindemann, at that time, was moving quickly towards becoming a major world marketer for melons. They were just beginning to source melons from Morocco for the European market.

In 1994, the Sigma One Corporation proposed that Lindemann visit Jordan and study the production and marketing of melons to see what, if anything, could be done to expand Jordan's participation in the international melon market.

Roger Houck of Lindemann came to Jordan in October. Together with Ahmed Kayali of AMO, he visited all of the major melon production sites in Jordan. The cost of this visit



Photo #5. Roger Houck, of Lindemann, visited Jordan in April 1995 in order to evaluate potential melon production for next year. He visited with Mr. Madanat in Safi where melons were being harvested for the domestic market.

Lindemann, a Reno, Nevada based company, has begun sourcing melons from Morocco and from the Sudan for marketing to the Western European Union. Houck also visited other production areas of Jordan including Mr. Marto's production in Mudawwara; Mr. Odeh's greenhouse production in the Northern Ghor as well as open field production in the Northern Ghor.

Hopefully, Lindemann will be able to source melons from Jordan in the 1995-96 winter production cycle.

was partially paid for by Lindemann. All further activities by Lindemann here in Jordan have been borne by Lindemann.

The first result of that initial encounter was Lindemann's interest in Haddadin's melon production in the Sudan. Lindemann returned to Jordan enroute to Sudan in December, to meet Haddadin, and to travel with him to the Sudan. While in Jordan, he met with Mazen Odeh, a green house producer in the Jordan Valley who is interested in trying new crops. He agreed, at the suggestion of Lindemann, to try producing melons for the winter market. Lindemann also met Souheil Marto who has been a major grower.

In April, Lindemann returned to Jordan, and, together we visited Odeh's melon production in Jordan Valley greenhouses as well as Souheil Marto's production in Mudawwara. We also visited melon production with Madanat in the Safi area. AMDP was the catalyst that brought together the two interested parties. Progress beyond that is subject to the interests of the two parties.

Alternative Agriculture

I have been aware, for some time, of a small company in Turner, Oregon that works with Oregonian farmers to produce seed for the Japanese market as well as for other markets. Some farmers are making as much as \$7,000 per acre profit! While in Oregon in May 1995, I visited with the owner of the company, Michael Chilton. I described to Mike my hope that his company could be induced to visit Jordan and look into the possibility of producing seed in Jordan for export.

Mike is interested. I hope that he can be invited by AMDP to visit Jordan to make an assessment of Jordan's potential as a seed producer for export. I believe, for example, that the RUM Farms desert climate presents an excellent opportunity for this type of activity.

Assuming that Mike sees a strong potential, he might then be willing to enter some type of joint venture with RUM Farms for the production and export of quality seed.

Grape Production

In December, Roger Houck of Lindemann, provided us with the names of four California grape production and marketing companies. We contacted them to determine their interest in becoming involved with grape production and marketing in Jordan. [As you know, Superior Farms, a Bakersfield California Grape Company, began a grape program in Jordan in 1983 with Ahmed Alayan. Unfortunately, Superior Farms was bought out by Sun World and there was a falling out with their Italian partners.] We received one negative response from Pandol Brothers in Delano, California. The other companies did not respond.

The Surabian and de Balogh reports generated a great deal of interest among Jordanian producers and exporters. The costs of developing grape production are fairly high, and many producers might welcome a joint investment approach. It would probably be useful to explore this with California companies on a more direct and personal level.

Nursery Production

I have visited with a number of Jordanian plant nurseries during the past two years. Several of these companies are interested in the export of plant material, particularly to the surrounding countries. Jordanian nurserymen may be more advanced than those in other Arab countries because Jordanian policy has permitted the import of much of the more advanced plant materials. I attempted to contact two California nurseries, but there was never a response.

A Tripod Approach

There are a number of highly qualified Jordanian producers. The perception among US companies, however, may be a combination of two thoughts: The first is that Jordanian producers are not technically prepared to produce efficiently, and, second, that investment in Jordan is too risky. On the other hand, I believe that many US companies are involved with Israeli companies in various types of agricultural ventures. I'm not aware of many, but cite two examples.

Pistachio

An Israeli expert consults with Paramount Farms in Bakersfield, California. Paramount Farms is probably the largest grower of pistachio in the United States. We were able to put the Israeli expert in contact with a Jordanian firm that wants to develop production of pistachio seedlings.

Desert Glory

Just before leaving on vacation, I received a fax from an individual in Israel working with a company known as Desert Glory. The home base of this company is Texas. Unfortunately, I was not able to follow up on that. Possibly, there would be some potential in developing a tripodal approach.

STUDIES

Several studies were conducted this year. In August a contract was signed with CDO to develop an airline strategy for expansion of air shipments of fresh produce to more of the existing airline destinations departing from Queen Alia Airport

The Airline Strategy Study was completed and presented to an audience in February. Unfortunately, the time chosen for the presentation was the day before Ramadan and in the morning. Experience has shown the best time for a meeting with private sector people is in the evening. We suggested there should be a follow-up meeting to deliver the message, but this has not yet taken place.

In October MRO was awarded a contract to develop two studies. The first study was an examination of the protocol that exists between Jordan and the Western European Union. The protocol was initially developed in 1973. There have been some revisions, but new revisions are due, particularly as Jordan contemplates entry into the World Trade Organization. This study was completed, but has never been presented. The intent was to present this study to the Association so that members could then intelligently lobby their Government representatives about changes that were needed. We also were aware that high level negotiations were scheduled to take place between Jordan and the WEU. I don't know if those meetings actually occurred.

A second study conducted was made to determine the effect of GATT membership on the fresh produce sector in Jordan. This study was presented saying there would be no effect because of the 10 year grace period. We have not, however, been satisfied with this report and have requested improvement. MRO responded with a request for a meeting, but that has not yet been held. It is interesting to note that, according to my understanding, the German project which works with AMO conducted a study of the protocol and of the GATT very recently.

PROJECT PLANNING AND REPORTING

When I arrived in Jordan in 1993 I followed the Technical Services Proposal (TSP) developed by the Sigma One Corporation. This document provided excellent guidance to the initial activities here in Jordan. By mid-1994, conflicts were occurring because of the impetus given to the development of the Exporters Association. A more precise plan was then adopted by AMO in July and we have operated according to that plan up to the present time.

AMO suggested a "strategic" planning session which was held at Main Spa Hotel in November 1994. [The new German project held a strategic planning session at the same hotel in December. I was invited to participate in order to limit over-lap between the two projects.] Dr. Ahmed Araji, Professor from the University of Idaho, served as the coordinator of this session. Participants included representatives from AMO as well as a significant number of private sector participants. The result was a report with a suggested plan. AMDP was not in a position to develop a final plan because we did not have the budget information. The plan prepared by Dr. Araji was submitted to the Sigma One Corporation, and they developed a Technical Services Proposal which was presented to USAID Amman for their consideration. Meanwhile, AMDP has proceeded with implementation of the plan approved in July 1994. Most activities have been completed, but several remain outstanding:

Regional Market Analysis

I proposed that a regional market analysis be conducted. My suggestion was that such a study should take a systematic look at all factors affecting marketing in a radius around Amman. This study should be an ever expanding function of AMO, and it is a particularly important study now that a peace agreement has been established with Israel. I hope this can be initiated in the continuation of the project.

Russia Market Analysis

This analysis cannot be done at the present time because of insufficient budget. Hopefully, the final results of the SE Asian Market Analysis will convince everyone of the importance of this kind of information for development of new market opportunities for Jordan.

NEWSLETTER

I have worked intensively with AMO in order to produce a weekly newsletter for exporters. During the first year, I reviewed a variety of periodicals for inclusion in the newsletter. In August of this year, AMO assigned a new individual to be responsible for the newsletter. This individual began strongly, producing an interesting, and useful document. By November, however, this individual was given new responsibilities and the newsletter suffered another lapse.

Earlier this year, Ahmed Kayali was given the assignment to continue with the newsletter. He has now been producing a weekly report for several months. AMDP promised him that he would receive hand's on training with a US institution if he continued to produce

the newsletter consistently over a six-month period. Dr. Franklin, President, Sigma One Corporation, assured me that Mr. Kayali's work would be recognized.

I have also encouraged the Association to develop regular written communication with its membership. So far, that has not occurred. One publication was produced and distributed. My idea would be that a regular "newspaper" be produced by a contractor. There are various journalists in town who could provide such a service. Such an individual could be contracted to dig up information, write the newspaper and distribute it on a regular basis.

PESTICIDE RESIDUE CERTIFICATION

Establishment of a pesticide residue certification process was set as a goal in Sigma One's Technical Service Proposal. A feasibility study conducted in late 1993 revealed that it was not economically feasible to establish such a process for exports to Western Europe.

AMDP, however, continued to examine the issue in the belief that pesticide residue certification could be developed by an existing Jordanian laboratory. The laboratory identified was Environmental Laboratories owned by Abdel Qader Samara.

In this reporting period, Abdel Qader Samara began in August 1994 to request involvement of the Exporters Association in his company. By September the Association had reacted favorably, but later Samara decided to pursue the possibility with other financing.

In October USAID approved the PRC process permitting the purchase of textual material about pesticide residue certification, and conceptual approval for hands on training for up to ten people from Samara's laboratory. It was agreed with AMO that hands on training for one AMO person would be provided in conjunction with the training for Samara's staff. The AMO training would be oriented to work with State operated supervisory agencies involved with pesticide residue problems.

In November, Samara was invited to visit pesticide residue certification programs in Israel. In the same month he discussed the possibility of obtaining equipment from USAID's NCARTT program. In December, Samara announced he had ordered two gas chromatography units at a cost of 60,000 JD.

Samara finally visited Israel in January. He contacted both government and private sector entities and returned to Jordan with a tentative agreement that an Israeli private sector laboratory would test samples for Samara until his own laboratory was ready to go.

Claus Ziller, a German technician who had worked with the Government of Jordan's pesticide residue laboratory for about 5 years, reported that the Western European Union

was still not enforcing residue standards in a rigorous way. Random samples were still the order of the day.

We attempted to help Samara get into the business of sampling by paying him for testing samples sent to the Dubai Spring Fair. Samara used the Government of Jordan facility to carry out the tests.

By April we concluded that Samara might not be willing and able to move ahead. We decided to advertise for other interested laboratories in order to insert a sense of competition which would then force Samara to move ahead more assertively. Sigma One, however, did not approve the idea. Dr. David L. Franklin, President of the Sigma One Corporation, commented to me that his corporation has decided that a pesticide residue certification laboratory in Jordan would not be recognized by European importers, and, thus, is not urgently needed.

AIRPORT REFRIGERATION

Airport refrigeration is considered essential to the growth of fresh produce exports from Jordan. A feasibility study was conducted by AMDP in late 1993 which concluded that a refrigeration unit was feasible. By September 1994 pre-qualification solicitations were closed. In October the Memorandum of Understanding prepared by Sigma One Corporation was ready for signature by AMO.

Unfortunately, changes in Royal Jordanian Airlines resulted in a decision to not sign the MOU. In October the Exporters Association met with Royal Jordanian in order to convince them to sign the MOU. They also suggested organization of a committee in order to involve Royal Jordanian Airlines more directly in the fresh produce sector. This move, however, was blocked by AMO.

By November the MOU had been signed by AMO and Civil Aviation (CAA), but the new president of Royal Jordanian rejected the MOU in the same month. In December, Khalil Saoud of Royal Jordanian denied any knowledge of Royal Jordanian's commitment to construct the concrete platform as stipulated in the MOU.

In January, I met the Minister of Transportation at his grape farm in the Jordan Valley. He convened a meeting through one of his staff members, which led to a subsequent meeting between the USAID Project Officer, the AMDP Administrative Officer and Khalil Saoud of Royal Jordanian produced little progress.

In late February, Dr. Ahmed Araji, on a voluntary basis, reviewed and up-dated the airport refrigeration feasibility study, and a meeting was organized at the Ministry of Plan at the behest of the Minister of Transportation. I also contact the former Chairman of the Royal

Jordanian Board of Directors. All these contacts with the solid support of the USAID Project Officer finally led to Royal Jordanian's signature of a revised MOU in April.

III. CONCLUSIONS

In my annual report of August 3, 1994 I said, "Development of the Exporter's Association utilized a lot of time of the Sigma One Group in 1994. Many problems were encountered, and most of these were conflicts with AMO. AMO, for example, said that once the Association was established it should be left alone. Further, AMO said that since the Association has more than 50,000 JD it would not be necessary to provide financial support. As the Sigma One Representative, on the other hand, I argued with AMO and with USAID that full support should be provided to the Association for the rest of the life of the AMD Project."

In his last conversation with me, the President of the Sigma One Corporation said, the only thing of value that this project will produce is the Exporter's Association (The words are mine, but I believe they represent the President's statement fairly).

Today, the Exporter's Association is at a critical juncture. The critical issue is the continued strong support needed by the Association so that it can mature into a meaningful, strong player in Jordan's Agricultural Sector. I have frequently suggested to the Association the advisability of seeking support from international donors, because USAID appears to be moving away from Jordan's Agricultural Sector.

Continued dependence for financial support from USAID via AMO is a risky course. Farmers and exporters in Jordan are among the more independent and determined people I have met. They need an organization that is truly theirs and not something that can be manipulated by forces outside the interests of the sector.

Ultimately, the Association will be sustained by the sector. Meanwhile, outside support is required. A former USAID Deputy Director in Amman once said that if we are successful in developing a truly private sector organization it will be a first for Jordan.

Red volume

P Y FARMS
VINEYARD DEVELOPMENT BUDGET
01-May-93

	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10	YEAR 11	YEAR 12	YEAR 13	YEAR 14	YEAR 15	YEAR 16	YEAR 17	YEAR 18	YEAR 19	YEAR 20
MET PLANTED ACRES	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00
VINES/ACRE (DUAD SYSTEM)	454	454	454	454	454	454	454	454	454	454	454	454	454	454	454	454	454	454	454	454
TOTAL VINES	9,080	9,080	9,080	9,080	9,080	9,080	9,080	9,080	9,080	9,080	9,080	9,080	9,080	9,080	9,080	9,080	9,080	9,080	9,080	9,080
BOXES/VINE	0.00	0.00	0.88	1.21	1.54	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76
BOXES/ACRE	0	0	400	550	700	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800
TOTAL BOXES (23 LB)	0	0	8,000	11,000	14,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000
PRICE PER BOX	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
TONS/ACRE-STRIPPINGS	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
PRICE PER TON	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
TOTAL REVENUE	0	0	80,000	112,000	142,000	162,000	162,000	162,000	162,000	162,000	162,000	162,000	162,000	162,000	162,000	162,000	162,000	162,000	162,000	162,000
PACKING MTLs/BOX	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75
TOTAL PACKING	0	0	14,000	19,250	24,500	28,000	28,000	28,000	28,000	28,000	28,000	28,000	28,000	28,000	28,000	28,000	28,000	28,000	28,000	28,000
SELLING COMMISSION %	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%
TOTAL SELLING	0	0	7,200	10,000	12,700	14,500	14,500	14,500	14,500	14,500	14,500	14,500	14,500	14,500	14,500	14,500	14,500	14,500	14,500	14,500
ASSESSMENT/BOX	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
TOTAL ASSESSMENT	0	0	960	1,320	1,680	1,920	1,920	1,920	1,920	1,920	1,920	1,920	1,920	1,920	1,920	1,920	1,920	1,920	1,920	1,920
TOTAL PACKING/SELLING	0	0	22,160	30,650	38,960	44,500	44,500	44,500	44,500	44,500	44,500	44,500	44,500	44,500	44,500	44,500	44,500	44,500	44,500	44,500
MET RETURN TO GROWERS	0	0	57,840	81,350	103,040	117,500	117,500	117,500	117,500	117,500	117,500	117,500	117,500	117,500	117,500	117,500	117,500	117,500	117,500	117,500
HARVEST/PACKING LABOR/BOX	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25
TOTAL HARVEST/PACKING	0	0	18,000	24,750	31,500	36,000	36,000	36,000	36,000	36,000	36,000	36,000	36,000	36,000	36,000	36,000	36,000	36,000	36,000	36,000
CULTURAL AND DEVELOPMENT MANAGEMENT (\$9/AC/MO)	42,140	62,840	30,540	34,940	34,940	34,940	34,940	34,940	34,940	34,940	34,940	34,940	34,940	34,940	34,940	34,940	34,940	34,940	34,940	34,940
INTEREST (10%)	2,160	2,160	2,160	2,160	2,160	2,160	2,160	2,160	2,160	2,160	2,160	2,160	2,160	2,160	2,160	2,160	2,160	2,160	2,160	2,160
PROPERTY TAX (1% \$8000/AC)	2,295	7,920	13,865	13,869	12,416	9,357	5,077	3,735	3,735	3,735	3,735	3,735	3,735	3,735	3,735	3,735	3,735	3,735	3,735	3,735
TOTAL OPERATING EXPENSE	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600
MET CASH FLOW (BEFORE TAX)	48,195	74,520	66,165	77,319	82,616	84,057	79,777	78,435	78,435	78,435	78,435	78,435	78,435	78,435	78,435	78,435	78,435	78,435	78,435	78,435
CUM. CASH FLOW	(48,195)	(122,715)	(131,840)	(127,089)	(106,585)	(73,142)	(35,419)	3,647	42,712	81,777	120,042	159,907	198,972	238,037	277,102	316,167	355,232	394,297	433,362	472,427
CASH FLOW (W/O INT.)	(45,900)	(66,600)	5,540	17,900	32,840	42,800	42,800	42,800	42,800	42,800	42,800	42,800	42,800	42,800	42,800	42,800	42,800	42,800	42,800	42,800
CUM. CASH FLOW (W/O INT.)	(45,900)	(112,500)	(106,960)	(89,060)	(56,220)	(13,420)	29,300	72,100	114,900	157,700	200,500	243,300	286,100	328,900	371,700	414,500	457,300	500,100	542,900	585,700
INTEREST AT 10%	2,295	7,920	13,865	13,869	12,416	9,357	5,077	3,735	3,735	3,735	3,735	3,735	3,735	3,735	3,735	3,735	3,735	3,735	3,735	3,735

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 TATED OPERATING VINE BUDGET

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
ACRES	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
	PER ACRE EXPENSE																			
PLANTING (SCH A)	1,550	2,490	150																	
LIZER	135	15	25	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75
CONTROL	15	15	35	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55
ING/TYING/VINE REPLACE		35	75	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145
ING			450	525	525	525	525	525	525	525	525	525	525	525	525	525	525	525	525	525
INATION				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
/GROWTH REG	40	135	200	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270
/UTILITIES	45	75	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
ING				60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
ING				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RS/MAINT	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
AB	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27
INSURANCE																				
LABOR (SCH B)	215	220	230	246	246	246	246	246	246	246	246	246	246	246	246	246	246	246	246	246
ALLOCATED OVERHEAD	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
MENT USE	50	100	140	149	149	149	149	149	149	149	149	149	149	149	149	149	149	149	149	149
PER ACRE EXPENSE	2,107	3,142	1,527	1,747	1,747	1,747	1,747	1,747	1,747	1,747	1,747	1,747	1,747	1,747	1,747	1,747	1,747	1,747	1,747	1,747
CULTURAL EXPENSE	42,140	62,840	30,540	34,940	34,940	34,940	34,940	34,940	34,940	34,940	34,940	34,940	34,940	34,940	34,940	34,940	34,940	34,940	34,940	34,940

OPMENT - (SCHEDULE A)

IGATE	500																			
P & LEVEL	525																			
ITINGS	225																			
M & STORE	25	5	150																	
WITING LABOR	75	25																		
RES	0	620																		
POSTS	0	62																		
KE & SET END POSTS	0	150																		
E	0	205																		
ING WIRE & STAPLE	0	218																		
TACH CROSSARMS & BRACES	0	250																		
SSARMS	0	355																		
IN & SUCKER	0	600																		
ELINE	200																			
	1550	2490	150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

LABOR - (SCHEDULE B)

PLANTING	0	0	0	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
LIZER	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
D CONTROL	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
ED/BRUSH	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
TIVATION	25	30	30	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27
T/GROWTH/REG	20	20	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
IGATION	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
IRS/MAINT	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
IPMENT MOVING	6	6	6	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
OVAN FEES	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110
	215	220	230	246	246	246	246	246	246	246	246	246	246	246	246	246	246	246	246	246

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