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**WEST BANK**

**ACCELERATING RURAL ECONOMIC GROWTH  
IN THE WEST BANK:  
Improving Lives through a  
Dairy Quality Improvement Project**

**USAID Grant PCE-G-00-00-00043-00**

**QUARTERLY REPORT**

**FOR JANUARY – MARCH 2001**

**Submitted by**

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**April 2001**

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**ACCELERATING RURAL ECONOMIC GROWTH  
IN THE WEST BANK:  
Improving Lives of Bedouin and Palestinian Families  
Through a Dairy Quality Improvement Project**

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**LAND O'LAKES, INC.**

**Quarterly Report**

**For January – March 2001**

Dates of project:	September 30, 2000 – September 30, 2003
Total estimated federal funding:	\$2,585,363
Total spent through March 2001:	\$308,006
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## I. Project Summary

This project, entitled “Accelerating Rural Economic Growth in the West Bank: Improving lives of Bedouin and Palestinian Families through a Dairy Quality Improvement Project,” is a \$2.5 million grant from USAID’s Global Bureau. The project is directly relevant to the Mission’s S.O. 1, “*Economic growth through the enhancement of enterprise development.*” It assists low-income dairy producers to increase their incomes and expand the capacity of small and medium enterprises to provide higher-quality dairy products to the Palestinian population. The project also will help achieve performance results across the spectrum of economic growth objectives, including increased economic opportunities and improved access to technical and financial systems, among others. The project will address health objectives for mothers and children by educating them about the health risks posed by unpasteurized milk and by providing basic nutrition education.

The West Bank is home to the Bedouin, traditional dairy and meat producers who provide dairy products for the rest of the country. Dairy is vital to the lives of more than half of the Palestinian population, directly as a source of income and indirectly as reasonably priced food products. Families depend daily on milk, milk products, and meat from their herds to meet nutritional needs. Dairy products are the major protein source for Bedouin families and especially for pregnant women and young children. Also, surplus production beyond family needs is sold in local markets, providing the major source of Bedouin cash income.

While sheep and goats are particularly important in the Bedouin way of life, dairy cows are significant for Palestinian farmers, commonly organized into cooperatives that link to small processing plants. Land O’Lakes will work with all types of dairy producers to improve the quality of products available for consumption and increase their availability at a reasonable cost. Production of all types of dairy products on the West Bank today is insufficient to meet demand, and the quality of local production does not match that of imported products. Greater development of the dairy system will both increase economic growth and income, and improve the nutrition of a large segment of the West Bank population.

The most immediate development challenges are the insufficient quantity and inadequate quality of milk. Land O’Lakes’ previous project in the West Bank dramatically increased production, and the current project will place increased emphasis on quality improvement. Higher-quality raw milk is critical both to developing a competitive industry and eliminating serious health problems facing rural Palestinian families, especially children. Improvement of quality at both the farm level and in processing facilities will enable the dairy sector to overcome fundamental constraints that now limit marketability of their products: a reliable source of clean, raw product; short shelf life of product; and consumer preference for finished, quality product.

The project will address the entire supply chain, including input suppliers, producers, processors and consumers. For a dairy industry to be competitive, producers must have an incentive to deliver higher-quality product and to create linkages with processors through efficient collection systems. Producers participating in associations and cooperatives can gain market leverage and negotiate arrangements with processors to assure appropriate financial incentives for higher-

quality milk. Processors then require improved management, technological innovation, and greater product variety to better meet market demand. Moreover, consumers must be educated about the nutritional value of dairy products and proper food handling and safety measures.

The previous West Bank project generated and documented strong results for participants, including reduced animal mortality from 27 percent to four percent, 24 percent higher milk yields, and 42 percent greater meat output, resulting in an average increase in incomes of participating families of 17 percent. The current project builds on the strong producer base created previously and will bring innovative activities to producers, processors and consumers to improve milk quality, ensure food safety, and augment child nutrition by providing affordable, clean dairy products throughout the West Bank. The extension also will expand to include Palestinian dairy cow farmers in Nablus, Hebron and Tulkarem, and facilitate business relationships to small processing plants in the area.

The project's activities include four areas:

- Collection
- Processing
- Policy and Promotion
- Production-based improvements in management, sanitation, herd health and nutrition

Key indicators will track improvements in:

- Milk collection
- Product quality and safety
- Human nutrition programs emphasizing increased consumption of dairy products
- Dairy processing
- Dairy product marketing and distribution
- Government/private sector policy dialogue and advocacy

The host country counterparts include small dairies in Nablus, Hebron and Tulkarem, the Universities of An Najah and Hebron, Ministry of Agriculture, local farmer cooperatives, and previous project participants. By the conclusion of the three-year project, these counterparts will have the capacity to continue playing key roles as the project phases out, by placing technical advisors in the dairy plants and industry associations. The universities will continue the highly successful, self-supporting ram-revolving program to improve genetics. They also will carry out nutritional outreach to Bedouin and other poor farmers, placing special emphasis on improved sanitary procedures for home consumption of dairy products.

## II. Implementation and Challenges Encountered

Despite the political crisis, Land O'Lakes staff were active during the past quarter, participating in many activities with farmers and dairy processors who are the target groups for the project. In January, Alan Gross, a consultant, reviewed the draft project implementation plans and, together with staff, developed the activities and sub-activities plans for the year 2000-2001. The work plan has been fairly successfully implemented by the field agents in villages in the Nablus, Tulkarem and Hebron areas, given the mobility restrictions imposed by the political situation.

In January, recruitment began for a Deputy Director for the project. Ms. Natash Carmi assumed her responsibilities as Deputy Director on April 1, 2001.

**Extension:** During this period, 554 extension visits in 68 villages reached farmers who produce over 1500 cattle and over 10,00 sheep and goats. Extension visits focused on:

- animal feed and nutrition
- record-keeping
- milk sanitation
- mastitis causes and prevention
- foot-and-mouth vaccination
- importance of selling products to nearby dairy plants

In addition, project field agents organized and held a workshop in Nablus in order to encourage farmers to sell their products to nearby existing dairy plants. The agenda is included as Attachment B. In the meantime, preparations are being made to hold another workshop in Tulkarem.

**Women's Extension:** The two women's extension agents made 93 visits to women farmers in at least 10 villages. The emphasis of the visits were on the following topics:

- the nutritional value of milk
- methods to produce hygienic milk
- importance of opening channels with dairy plants

In Tulkarem, the women field agents emphasized the importance of both opening channels with dairy plants and observing proper hygienic procedures in tool handling and use. In addition, the Irtah Dairy Cooperative was visited.

In the Al-Oja village in the Jericho area, the field agents met with the village council chairman to acquire a list of farmers. In the meantime, the Bedouin community survey was conducted.

At the cooperative level, Land O'Lakes Country Manager Dr. Tarazi accompanied field agents on their visit to Al-Zakah Dairy Plant. Another visit was made to the Ministry of Agriculture (MOA) in Nablus, during which Land O'Lakes field agents met with their women's extension field agent to acquire information about dairy farmers in the city.

**Dairy Processors:** The General Director of the extension programs in the MOA, Mr. Abedalh Lahah; Fatin Wazaifi, the Director of the women's extension program in the MOA; and the Land O'Lakes team participated in a January meeting discussing methods of cooperation in field activities and strategies between MOA and Land O'Lakes. The mutual goals are to increase milk quantity and quality and to determine what incentives are needed to encourage farmers to improve the quality of the milk that they sell to the dairy plants.

In January, the Al-Zakat (Azzakat) dairy plant was in the final stages of testing. Project field agents helped in facilitating translation and communication between the Tetra Pak technical team and the Palestinian workers who will be working there. The dairy plant owner will cooperate with Land O'Lakes field agents in organizing the farmers in the area to sell their milk to the dairy plant. A meeting was held between Al-Zakat Dairy Plant directors and LOL staff to plan future links with dairy farmers. Several incentive programs were suggested that would encourage the farmers to sell their products to the dairy plant. A workshop was held, as planned, in cooperation with Al-Zakat committee and Land O'Lakes staff. In addition, a group of farmers visited the dairy plant. To formulate an idea about milk quality, field agents collected 15 samples of milk which were tested at the plant laboratory for fat percentages and acidity.

The other two dairy plants in Tulkarem area cooperated with field agents to organize farmers in groups that will facilitate the milk collection to the dairy plant.

In the Hebron area, several visits to dairy farms were made by field agents to build relationships between the milk producers and dairy plants.

Refer to the impact stories in Attachment A for more detail on some of the successes to date.

### **III. Changes to Project**

Land O'Lakes has decided to open a satellite office in Nablus. It was opened April 15, 2001.

# **ATTACHMENT A**

## **Impact Stories**

## West Bank Project Land O'Lakes

## IMPACT!

### **Azzakat (Al-Zakat) Dairy Plant and Local Dairy Producers Forge New Relationship**

Tell is a Palestinian village located 4 kilometers west of Nablus City. Most of the dairy cows in Nablus City are concentrated in this small village; there are about 600 dairy cows. Farmers in this village process most of the milk into yogurt, and the rest is sold as fresh milk. One of the main problems that farmers face in this village is marketing their product, in addition to the long working hours needed for milk processing. In order to alleviate their marketing problem, producers would be well served to sell their products to the newly established dairy plant in the area, Azzakat (Al-Zakat). Azzakat dairy plant has a daily processing capacity of 60 tons of milk.

Three of the Land O'Lakes field agents, along with representatives of the Azzakat plant, organized a workshop for milk producers in Tell village. Twenty-eight (28) farmers attended the workshop. The agents conducted a presentation on the merits of selling milk to Azzakat Dairy Plant and demonstrated in numbers how selling fresh milk to Azzakat Plant is more profitable. Not only does it solve the marketing problem, but it will also save 70% in working hours.

A suggestion was made to have farmers visit the plant. Upon the farmers showing interest, a demonstration trip was organized to the plant for twenty producers who had participated in the workshop. By the end of the trip, Azzakat dairy plant and the producers signed an agreement that encourages farmers to increase their herd number and to work toward improving milk quality.

Furthermore, 26 milk samples were collected in two stages and tested for the percentage of fat, pH, and density. In the Azzakat lab, the first 13 samples had a fat percentage of less than 3% due to an unbalanced feed ratio, and furthermore, it was found that the pH factor was low due to unbalanced milking machines and bad milk storage. The field agents' advice to the producers was to improve the feeding program and disinfect the milking machines. A week later, the other 13 samples measured a fat percentage of 3.2% and an increasingly neutral pH factor.

- ✓ **Problems in marketing milk**
- ✓ **New dairy plant established.**
- ✓ **Workshop for Azzakat plant and local dairy producers held.**
- ✓ **Agreement signed between dairy plant and dairy producers.**
- ✓ **Milk fat percentage and pH improved.**

## West Bank Project Land O'Lakes

## IMPACT!

### Farmer Signs Agreement with Dairy Plant And Improves Marketing

Rojeeb Village is located in the eastern part of Nablus, five kilometers away from Nablus City, near the Azzakat (Al-Zakat) dairy plant. The population of Rojeeb is about 3,000 people, 35% of whom depend totally on raising sheep and dairy cattle. They have 2000 head of sheep and 500 head of dairy cattle. Cooperating with the Rojeeb village council, the Land O'Lakes field agents began working on screening, surveying, and collecting data on farms in this village.

One of these farmers, Abu Rasmy, is 45 years old and has 20 head of dairy cattle. He produces yogurt and cheese, without any sanitary treatment in his processing, and sells it in Nablus City without any sanitation treatment.

As does the majority of dairy farmers in Palestine, Abu Rasmy faces marketing problems. Dairy farmers usually sell their products via a middleman who charges them for transporting their products to Nablus City, which decreases their profitability. No sanitation processes are applied to the milk or the machines. They depend totally on hot water to clean, which leads to low quality and quantity of milk. Mastitis is another problem; it destroys the udder and reduces milk quantity and quality and accordingly reduces the cattle price when he wants to sell.

He accepted the idea of working with Azzakat dairy plant in Nablus City. One week later, the Azzakat plant agent signed a contract with Abu Rasmy and his three brothers to provide the dairy plant with 800 kilograms of milk daily.

More importantly, the Land O'Lakes field agents worked with him to show him what disinfectant he should use and how. In addition, they advised him to provide water in a constant supply to the farm, provide salt blocks for the dairy cows, and have good quality hay for good nutrition.

Finally, the direct relationship with the dairy plant solves his marketing problem. Moreover, milk quality has improved and equipment for dairy processing is more clean.

- ✓ **Marketing problems – middleman reduces profitability.**
- ✓ **Dairy processing sanitation is a problem.**
- ✓ **Farmer signs agreement with Azzakat dairy plant, improving marketing.**
- ✓ **Sanitation improved.**

**Good Management Leads to More Profits  
for Zaeem, a Leader**

In Arabic, *zaeem* means “the leader.” Mr. Zaeem Jodeh is one of the lead farmers in the Land O'Lakes dairy program. As part of implementing an extension program for sheep and goat farmers, the project agents visit Al-Qof in Jordan Valley, 14 kilometers northeast of Nablus City, where Mr. Jodeh and four other farmers are living. The response level to the program varies among the farmers; some of them are creative and others are imitative. Mr. Jodeh follows the advice better than others. He believes that management is very important for his business.

At the advice of the project's extension agents, Mr. Jodeh vaccinated his herd of 130 sheep and 40 goats for enterotoxemia, foot-and-mouth disease, and sheep box, as well as treating them for internal and external parasites. He implements a good feeding program for the animals. All these practices have led to a healthy herd.

Good management practices and good weather in the Jordan Valley help to create circumstances suitable for an extra mating season. The natural mating season for sheep and goats occurs in the summer – June and July – but here an extra mating season happened in late February and early March. Mr. Jodeh invited me to visit him with a veterinarian to test the ewes for early pregnancy via ultrasound. On April 12, 2001, they tested 70 ewes, 32 of whom were pregnant. This will lead to an extra lambing season, which means more lambs and more milk, especially in the summer when the cheese prices are higher.

Mr. Jodeh is encouraged that his farm management has progressed to the point of producing a higher income, income needed in order to help out his sons who lost their jobs because of the situation in the West Bank.

The expected extra profits in Mr. Jodeh's farm encourage other farmers in the area to follow in his steps next year.

✓ **Zaeem is true to the meaning of his name, “leader.”**

✓ **Zaeem Jodeh implements good management practices for his sheep and goats.**

✓ **Extra mating season leads to more animals, more milk, more profit.**

✓ **Farmer's example leads others.**

**West Bank Project  
Land O'Lakes**

**IMPACT!**

**Labeling Yogurt Produced On-Farm  
Facilitates Marketing**

Abu Khaled is a farmer from Kosra village 25 kilometers southeast of Nablus City who owns 10 cows, a bull, and 9 calves. His operation is farm-to-market: he runs the farm, processes the milk, and markets it. He produces only yogurt and faces problems in marketing his product.

A Land O'Lakes field agent has been working with Abu Khaled since the project began. The agent has offered him extension advice on farm management, nutrition, sanitation, milking, milk processing and product marketing. Abu Khaled bought a new piece of land beside his farm, and is seriously considering extending and improving his farm.

The field agent advised him on the importance of labeling his product to include information such as the expiration date, nutritional value, and the farm name. Through this he has gained consumer confidence and facilitated marketing of his product. Abu Khaled is now encouraging other farmers to adopt the same labeling approach.

✓ **Problems in marketing yogurt**

✓ **Farmer advised on product labeling.**

✓ **Farmer encourages other farmers to label their products.**

**Farmer Improves Productivity  
through Improved Animal Housing**

Raising dairy cattle is very common in Tulkarem City and the villages around it. There are two dairy plants: the first is Al-Qaisy Dairy Plant and the second is The Livestock Development Cooperative. Both plants are helpful to farmers because they save them the difficulty of marketing their products. However, farmers' products need to be delivered to the plants in accordance with set standards. This is where Land O'Lakes' role comes in.

Mr. Arab Abou Baker, 35 years old, is an educated person, an active member in the cooperative, and an owner of a successful business. He owns 25 cows and 10 ewes. He is a very knowledgeable person who actively passes on to other farmers the useful information he receives.

Although the farmer tried his best to improve the conditions within his farm, he still had room for improvements in animal housing. For example, a project field agent observed that a dim lighting system, along with steep steps, increased the probability of slipping, which resulted in hoof injuries and infection. The consequences were decreased animal productivity and, ultimately, culling of the animal.

The agent advised him to improve the lighting system and to remove the steps. The farmer followed through on the suggestions and built a new, spacious milking shed with an improved lighting system. As a result, the incidence of injuries and infections has decreased and the productivity of his cows has increased.

The real role of an extension agent is to help farmers to identify their threats and opportunities, then offer a realistic analysis of their situation and a simple solution to help the farmer overcome the problem.

✓ **Poor housing led to injury and culling.**

✓ **Farmer builds new housing.**

✓ **Fewer injuries and increased productivity.**

# **ATTACHMENT B**

## **Workshop at Azzakat (Al-Zakat) Dairy Plant**

**LAND O'LAKES INC.  
Ramallah - Palestine**

**Workshop  
For the dairy producers in Tell Village  
In cooperation with Azzakat Dairy plant / Nablus.**

**Organized by:** Land O' Lakes staff / Nablus.

**Date:** March, 16,2001.

**Location:** Tell Village, village council office.

**Participants:**

**Land O' Lakes Staff:**

Salah Abu Eisheh.  
Nidal Dweikat.  
Qossay Abu Dawwas.

**Azzakat Dairy Plant:**

(Board director)

Zaid Jawabreh  
Majdi Al-Agbar

Dr. AbedIRaheem Hanbaly

**Tell village council:**

Adnan Saifi  
Tahseen AbdAllah

(chairman)  
(Member) Group of dairy

**producers in Tell village as the following:**

- 1- Mohammed Ali Saifi.
- 2-Mohammed Abed Yaseen.
- 3-Soud Asa'd Yaseen.
- 4-Tayser Asa'd Yaseen.
- 5- Mohammed Saeed Abd AlFatah.
- 6- Sulaiman Hamed Sulaiman.
- 7- Izat Abd Al Aziez Yaseen.
- 8- Abd AL Lateef Huseen Amer.

- 9- Abd Al Rahman Baker Ishteyah.
- 10- Fathi Ahmad Ramadan.
- 11- Ghasan Saifi.
- 12- Najeh Attah Abu Shanar.
- 13- Talal Mohammed Ramadan.
- 14- Ramadan Esaa Ishteyah.
- 15- Mashhour Helmy Ramadan.
- 16- Waleed Moustafa
- 17- Abd Al Fatah Mohammed Aref.
- 18- Moustafa Ramadan
- 19- Jalal Mohammed Aref.
- 20- Saqer Ahmad Hasan.
- 21- Raed Mohammed Huseen Ramadan.
- 22- Basel Marouf.
- 23- Abd Al Lateef Ramadan.
- 24- Moustafa Saeed Abd Allah

#### **Workshop program:**

- **Village council chairman Mr. Adnan Saifi** opened the workshop welcoming the participants, Mr. Saifi introduced Azzakat and Land O'Lakes staff to the farmers producers and he explained the aim of this workshop. He explained deeply the relation between the farmers and the village council until creating a legal body representing the farmers at the dairy plant and an active role between the producers and the processors.
- **Dr. Hanbaly** gave the participants clear idea about the dairy plant, the capacity, products and the procedure of collecting milk from the farmers and deliver it to the dairy plant in good and hygienic conditions. He also introduced the farmers the contract, which will be used as a memorandum of understanding in case of collecting their cow's milk in the future. The contract clarifies the following points:
  - One- Standards of milk(Fat%, pH, Density,.....Etc.)
  - Two- Sanitation.
  - Three- Prices and delivery.
- **Salah Abu Eisheh, program Coordinator:**
- **Mr. Abo Eisheh** Gave the participants a clear idea about Land O' Lakes project in Palestine and it is role in developing dairy sector, at the farm and the dairy plant levels.

- **Nidal Dweikat, Dairy Coordinator:**
- **Mr. Dweikat** gave the participants an idea about Land O'Lakes as a model cooperative, he also talked about the role of the producers cooperative in organizing farmers and facilitating the relation between the farmers from one side and dairy plants from the other side.
- **Qossay Abu Dawwas, Dairy Coordinator:**

Mr. Abo DawwasTalked about the standards of milk, which is suitable for processing and the best ways to produce hygienic milk.

**- Open Discussion:**

Producers asked important question concerning milk collection centers, milk delivery to the dairy plant and high need for practical extension and training programs.

**Results:**

- One- Farmers are willing to sell their milk to the dairy plant, which help them in solving their marketing problems.
- Two- Farmers show high commitment to cooperate with the dairy plant and Land O'Lakes programs.
- Three- High need for milk collecting centers, cooling tanks, milk delivery cans, milking machines and practical training?
- Four- Low productivity of dairy cows (culled from Israeli farms)
- Five- Land O' Lakes suggested organizing field trip to the dairy plant, which is accepted by the farmers. This will give them the chance to see the dairy plants by their eyes and touch by their hands.  
This trip dated on Saturday, 17, March 2001.

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**Extension Demonstration trip for a group of Dairy farmers  
from Tell village to Azzakat Dairy Plant.  
March 17,2001**

According to the workshop done in Tell village on March 15, 2001, the group of dairy farmers participated in the workshop visited Azzakat Dairy Plant on March 17,2001.

The trip funded by Land O'Lakes project.

Trip program

**13:00:** The farmers producers arrived the dairy plant.

**13:00 – 1315:** Welcoming the farmers by the Board Director Dr. Hanbaly, Dr. Hanbaly encouraged Dairy farmers to increase their herds and to improve the production conditions by following the extension program.

**13:15 – 14:30:** Tour inside the Dairy Plant. During the tour Mr. Hamad Abo Jamoos Production Manager, gave the producers a good idea about the Dairy plant, reception tanks, machines, capacity, laboratory, cooling tanks, he emphasized on the importance of producing high quality milk.

**14:30 – 15:00:** Hospitality & Open Discussion

**15:00:** Close