

**WORLDWIDE  
FARMER-TO-FARMER PROGRAM  
FAO-A-00-96-00005-00**

**YEAR FIVE, SEMIANNUAL TWO  
SEMIANNUAL REPORT  
FOR APRIL 2001 - SEPTEMBER 2001**

**Submitted by**

**Land O'Lakes, Inc.  
International Development Division  
P. O. Box 64406  
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**October 31, 2001**

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**PROGRAM UPDATE**

**LAND O' LAKES, INC.  
INTERNATIONAL DEVELOPMENT DIVISION  
WORLDWIDE FARMER-TO-FARMER PROGRAM  
FAO-A-00-96-00005-00**

**SEMIANNUAL REPORT  
Year Five/Semiannual Two  
April 1, 2001-September 30, 2001**

**SUMMARY**

**PROJECT DURATION:** September 30, 1996-September 29, 2001

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**SEPTEMBER 11, 2001**

Immediately following the terrorist acts of September 11<sup>th</sup>, letters of condolence, condemnation of these acts, and support for America poured in to our offices from our Farmer to Farmer partners around the world.

As a development program with a strong "people to people" foundation, Farmer to Farmer serves to address the ignorance, desperation and hopelessness that are the long-term roots of terrorism. By providing assistance to disadvantaged individuals and communities, the program empowers our partners to improve their standard of living and the quality of life in their communities. At the same time, it provides direct interaction with American citizens, and opportunities for people around the world to meet Americans. From this interaction, citizens of the world can base their opinions not on abstract second hand knowledge, but on first hand experience working together.

**SECURITY**

Immediately following the terrorist attack, Land O'Lakes suspended all international travel while we reviewed our security and emergency procedures for the program. An emphasis has been placed on maintaining close contact with volunteers and solid lines of communication while in the field. Each office has reviewed and updated emergency contingency plans with varying degrees of security concerns.

**RECRUITING**

Some volunteers remain reluctant to travel at this time, and/or have requested that their assignments be postponed until early next year. While there are still qualified specialists interested in volunteering their time, this situation has increased the difficulty of recruiting volunteers for assignments.

## CORE COUNTRY UPDATES

### **- Mexico**

Land O'Lakes continues to develop our model of implementing the program through our local NGO partners ATCO in Villahermosa, Tabasco and DANA in San Cristobal de las Casas, Chiapas. While we continue to work together on refining our information reporting, the program is producing strong results. DANA and ATCO will be utilizing Farmer to Farmer volunteers to expand upon their existing cacao projects. Additional projects include agroforestry and production diversification, organic wheat production, and hard wood production for the export market.

### ***Tia Tana Women's Cooperative, Villahermosa, Mexico***

Throughout the life of the Farmer-to-Farmer program, Tia Tana has grown into a cooperative of 150 members, with the potential of continued growth to 250 members. Volunteers have focused on issues such as production, product development, and direct market access. Work between ATCO, Land O' Lakes and a broker in the United States has begun the potential for a lucrative sales partnership to begin. This sales opportunity for value added cocoa products has increased the return of cash for the Tia Tana Women's Cooperative.

Current estimated needs for chocolate are approximately 100 lbs. per month, however as you can see, orders have far exceeded that estimate. Considering the current demand from the broker, the expectation is that order sizes will increase.

### **Three Orders have occurred to date:**

- ⇒ 8/01: 100 lbs of chocolate balls, 10 lbs of cocoa powder
- ⇒ 9/21: 175 lbs of chocolate balls
- ⇒ 10/01: 100 lbs. of chocolate balls, 20 lbs. chocolate balls processed without sugar, 50 lbs. cocoa powder processed without sugar, and 50 lbs. roasted whole cacao beans (unprocessed).

### **Product Pricing**

- ⇒ Processed chocolate prices: \$5.50/lb.
- ⇒ Roasted, unprocessed Cacao beans: \$3.95/lb.

### **- Jamaica**

Jamaica has completed a very successful year, fielding 31 assignments for a dramatically increased presence. This has taken place as we transitioned away from working exclusively with one local Jamaican NGO partner and into a new implementing system utilizing a Land O'Lakes consultant in the field. We remain committed to working through local NGO partners on the World Wide Farmer to Farmer program and continue to work to identify and strengthen organizations interested in collaborating on the program.

This year the Farmer to Farmer program was proud to participate in the Denbigh Agri-Industrial Show which took place from August 4 - 6, 2001 in May Pen, Clarendon. Denbigh is a largely attended Agricultural Fair, which highlight's Jamaican agriculture, horticulture, and livestock as well as a variety of unique traditional Jamaican fares. Land O' Lakes sponsored a Farmer to Farmer booth creating a great opportunity to distribute program information and speak directly with local agriculturists, NGO's and government contacts.

### **- Philippines**

Land O'Lakes was pleased with the collaboration we have had with Peace Corps in Philippines. While Philippines is not a core country for Land O'Lakes in the program extension, Peace Corps

has expressed interest in continuing to access Farmer to Farmer volunteers to augment the work of their volunteers. The Peace Corps has been very helpful in providing the necessary information for volunteer assignments. We are now working with them on gathering the necessary impact information on these prior assignments.

**- South Africa/Malawi**

With the outbreak of violence in the West Bank, Land O'Lakes relocated our Farmer to Farmer program to existing Land O'Lakes offices in Africa. While focusing in Malawi and South Africa, volunteers were also sent to support local agribusiness partners identified by Land O'Lakes offices in Kenya, Uganda, and Zambia.

**PEACE CORPS**

In-Country Peace Corps offices have been a valuable partner for our programs in Philippines and Jamaica. As mentioned above, Peace Corps volunteers have been involved in assignment development in Philippines. In Jamaica, we have also developed assignments in support of Peace Corps volunteer initiatives in addition to sharing information related to operating a volunteer program in Jamaica.

**IMPACT REPORTS**

There is one impact report included in this report: *Ulden Best Chicken*, located in Trelawny, Jamaica.

**PUBLIC OUTREACH**

Land O' Lakes continues its efforts to illustrate the highly positive impact of U.S. foreign assistance. A quarterly newsletter is distributed to members, employees, and other interested organizations and individuals to increase awareness. In addition, Land O' Lakes has a web site highlighting Land O' Lakes USAID projects ([www.landolakesidd.com](http://www.landolakesidd.com)).

Many public outreach activities were conducted by Worldwide Farmer-to-Farmer volunteers and Land O' Lakes International Division staff during this semi-annual period. These activities include large group presentations and publications. Some publications have been included in this report.

**FINANCIAL REPORT**

A semiannual financial summary has been included in this report

ULDEN BEST CHICKEN, Trelawny, Jamaica (Continued)

WORLDWIDE FARMER-TO-FARMER/JAMAICA

IMPACT

Ulden Best Chicken , Trelawny, Jamaica

Technical Assistance Assignment Status		
FTF Volunteer	Assignment Type	Dates of Assignment(s)*
Dave Deppner	Technical assistance to lower chicken mortality rate	March 11 – 24, 2001



Pictured above are Farm Owners Lexton and Donna Josephs in front of existing broiler house, Ulden Best Chicken, Jacksontown, Trelawny.

Below, an overview of the Cockpit Country within which Mr. Josephs farm resides.



## PROFILE

Mr. Lexton Josephs, Farm Manager and Owner of Ulden Best Chickens, approached Land O' Lakes as a potential candidate for the Farmer-to-Farmer program. He was complaining of a high mortality rate on his chicken farm and felt he needed more adequate technical extension expertise. The greatest concern identified at that point by area vets when consulted was coccidiosis, an acute parasitic infection that eventually leads to contamination and further infection of all birds raised in the same environment. Mr. Josephs was not convinced that this was the source of his problem. A Farmer-to-Farmer consultant, Mr. Dave Deppner, poultry management expert of Wheaton, Maryland, was identified to assist the Jamaican farm owner with a wide range of production and management issues.

### Personal History

Mr. Josephs has been formally involved in agriculture since age fifteen, when he began studying it in high school. He continued his studies by attending a three-year course at Eliam Agriculture School. After Eliam, Mr. Josephs attended courses at the College of Agriculture, Science and Education. He then worked for Agrograce for the ten years earning a series of promotions that led him from a Sales Clerk to Marketing Representative Manager. In continued pursuit of his passion for agriculture following a successful career with Agrograce, Mr. Josephs opened a wholesale store in 1999 and established Ulden Best Chickens. Since then, Mr. Josephs has opened two subsequent businesses in Jackson Town, Trelawny, where he also markets his processed chicken. He is a well-respected man in his community and has a reputation of conducting good business.

### The Farm Layout Prior to Volunteer Assignment

Mr. Josephs owns approximately 2.5 acres of land on the outskirts of Jackson Town. He has constructed a 31-ft. x 148-ft. broiler house, divided into two (2) sections. Each section holds 2,500 birds, which are raised from one day-old to market size, 4.25 – 4.75 lbs. Each 3 to 4 weeks, one section is emptied and cleaned, then filled with more day-old chicks while the other section maintains older birds that are, at age 46-53 days, slaughtered and marketed through retail stores.

There is one poultry building running from southeast to northwest. It has been constructed on relatively flat land. It is 30-ft. 5-in. wide and 148-ft. in length with ventilated sides screened with poultry netting and a galvanized steel (GI) roof. The sides of the building have plastic covers which can be easily raised or lowered as needed; when new chicks are being brooded or in times of rainy weather, for example. The eaves are 6-ft. 4-in. above the floor. The pitch of the roof is slightly less than 3:12. There is an approximate 8-in. gap at the peak between the GI sheets. This is covered with a formed cawling of light gage steel. The framing is mostly 2 x 4 lumber and the floor is poured cement that is then covered with approximately 4-in. of rice hulls or litter. With each new batch of chickens, the floors are cleaned; hulls are recycled into the next room and replaced with fresh litter. The more mature chicks

## ULDEN BEST CHICKEN, Trelawny, Jamaica (Continued)

are moved to the room where the older, recycled hulls have been transferred. The feeders and automatic water dispensers are suspended from the roof runners and have height adjustments. Water dispensers are cleaned twice weekly and feeders, at the end of each batch of raised broilers. There are six (6) tall trees near the southeast end of the building.

### **Important Influencing Factor**

Due to the decline in the Jamaican economy over the past ten years, extension services are financially limited. This is an unfortunate situation in that it leads to inadequate technical assistance from the government, non-governmental agencies and associations. Although they offer the valuable resource of well-trained, highly educated extension officers, they are often limited by funds and influenced by politics; therefore they are not always available as a reliable source of technical assistance, nor the most timely. There are excellent resources in Kingston but they are not easily accessible to the average farmer, due to distance and location. Their time away from the farm directly affects their sustainability and livelihood. Finally, there is no local association for chicken farmers to provide information or technical assistance in Trelawny. Given these facts, the small- and medium-sized farms are often left to their own devices to solve technical issues.

Outside of educated guesses, none were able to determine the cause for the high mortality rate on Mr. Josephs' chicken farm.



### **Objectives**

The main objective for Ulden Best Chickens was to become a more efficient and productive enterprise. The technical assistance application outlined the following:

- Evaluate current chicken raising practices.
- Examine and identify the cause of the high mortality rates and make recommendations to lower them.
- Demonstrate different practices to maintain 'chicks' health.
- Evaluate current production.
- Identify why production rates are not higher.
- Implement new technologies to raise production levels.

### **Farmer-to-Farmer Technical Assistance**

Mr. Deppner arrived in Trelawny on March 11. Upon an initial tour of the operations, he concluded that an infectious disease such as coccidiosis was NOT causing the high mortality, rather the source was environmental by nature. The following observations were made:

ULDEN BEST CHICKEN, Trelawny, Jamaica (Continued)

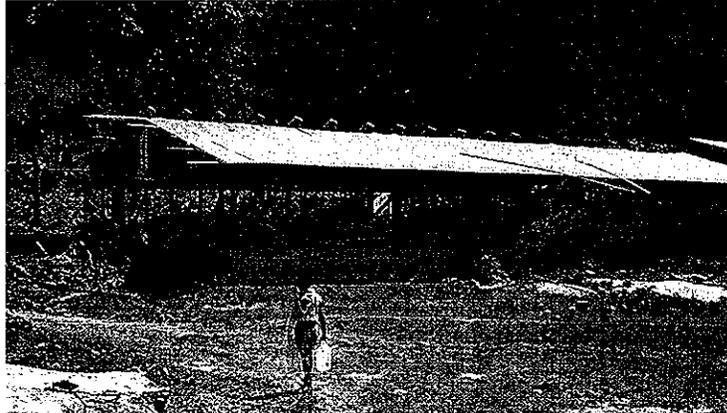
- (a) No symptoms of an infectious disease were observed either in the live or dead birds.
- (b) The location of the dead birds was routinely specific within the building rather than scattered throughout, which would be more likely if the cause were an infectious disease.
- (c) In two subsequent batches, as the birds' aged, the mortality increased. If the cause were a contagious disease, the opposite pattern would occur because older birds would have developed a higher level of resistance.
- (d) The dead birds were the largest in the pens, uniformly in excellent condition, just the opposite of what might be expected in the event of a serious disease.
- (e) The only common symptom was heavy panting.
- (f) The owner reports that, in batch after batch, mortality in pen #2, which lacked shade, was far higher than in Pen #1, which was shaded by six (6) tall trees.
- (g) More than 70 percent of the total mortality occurred within a two-hour timeframe, from 4:00 to 6:00 p.m.

Heat naturally rises and the inherent structure of the building allowed heat to accumulate but did not allow it to escape. Because the roof of the pen was comparatively low, the overall temperature of the pen was intensely greater. Another contributing factor was that the birds are raised to an extreme live weight of 4.25 - 4.75 lbs. to meet market demand. This is a large bird in tropical conditions. As the size and weight of the bird increases, its mass (where heat is generated) increases much faster than the body surface (where heat is dissipated). Again, this is a reason the high mortality occurred is mostly in the larger birds.

Mr. Josephs had been told that the acceptable housing requirement for broilers is one square foot per bird or market size. This recommendation clearly does not take into consideration the tropical conditions under which the birds are raised on his farm or the extreme size to which the birds are raised. In actuality, during the warmest part of the day from 2:00 - 6:00 p.m., the square footage is far lower because birds cannot use an area of about 480-sq. ft. due to the direct sunlight on that part of the floor. Each day, the chickens generate some 250 Kg. of manure (dwb) that is deposited in the litter. As it biodegrades, tremendous heat is generated at the floor level. The birds receive one standard ration' throughout the seven or more weeks of maturation, that contains a 23-24 percent crude protein level. As the birds mature, they begin digesting a considerable portion of their ration's protein for energy, which logically increases body temperatures of larger birds.

ULDEN BEST CHICKEN, Trelawny, Jamaica (Continued)

Action Taken



On the afternoon of March 14 with 102 birds dead, the owner decided to remove the roof cowl based on Dave's recommendation. Within an hour, the noise level of the chickens noticeably increased, generally the desired response. That evening, a seedbed nursery of Leucaena K-67, a tropical shade tree, was prepared. More than 1,000 seeds donated by Mr. Deppner were planted the following day. A number of chicken farmers from the community came to the farm to witness the demonstrated results of removing a portion of the roof. The mortality record of the flock is documented below:

<u>DATE</u>	<u>DEAD BIRDS</u>
March 10	68
March 11	75
March 12	32
March 13	75
March 14	102
March 15	65
March 16	24
March 17	2
March 18	5
March 19	4
March 20	2
March 21	4

Before the roof was opened, afternoon temperatures within the pen ranged from 95-98° F and the mortality rate averaged high at 57 birds per day. Once the roof was opened, afternoon temperatures within the pen dropped to between 91-93° F. The decrease of 4 ½ degrees Fahrenheit was sufficient to reduce mortality to an acceptable level on average of 3 birds per day.

✓ 1,000 seeds of Leucaena trees, donated by Mr. Deppner were planted the following day

✓ Mortality was reduced to an acceptable level of an average of 3 birds per day.

**ULDEN BEST CHICKEN, Trelawny, Jamaica (Continued)**

The dressed weight of a chicken is calculated at 3.6 lbs., the selling price is \$45 JMD/lb. This results in an additional income of nearly \$2,000 USD to the producer for a batch of 2,500 broilers.

- 53 (birds saved per day)
  - X 12 (days)
  - 636 (birds saved)
  - X 3.6 lbs. (dressed weight per bird)
  - 2,288 lbs. product
  - X \$45 JMD
  - \$102,960 JMD

Both the owner and other local poultry farmers quickly recognized the benefit that the added ventilation provided in lowering mortality rates. Most agreed that they would construct new buildings using this system. Additionally, they agreed that trees would be planted providing added shade and cooling effect for their houses. Some 7,000 seeds of Leucaena trees are being distributed to livestock raisers of the area.

When visited most recently, Mr. Josephs stated that his inputs have not increased with any of the recommendations. Most birds were dying in the fifth week (seven weeks from purchase to slaughter) and the only additional input has been feed (he stated it is of minimal cost) because labor and electricity are constant and water cost is negligible.

**Follow-up on Recommendations**

To date, Mr. Josephs reports that he has implemented each of Mr. Deppner's recommendations and that his profits have increased. He currently claims an average mortality rate of less than 10 percent. Recommendations regarding overall farm management are considered daily and implementation will continue as finances allow. Noted production changes influencing lowered mortality rates are demonstrated below:

✓ Additional income generated of nearly \$2,000 USD per batch.

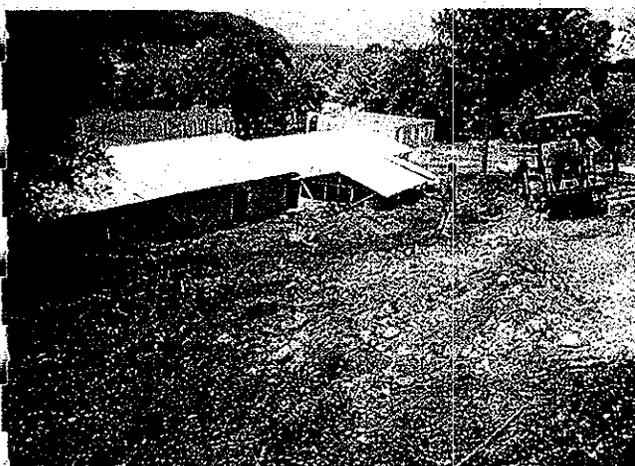
✓ Other local poultry farmers quickly recognized the benefits of added ventilation

✓ Farm inputs have not increased with volunteer recommendations

✓ Mr. Josephs' profits have increased overall since the intervention of the volunteer.

ULDEN BEST CHICKEN, Trelawny, Jamaica (Continued)

RECOMMENDATION	ACTIONS TAKEN	RESULT
Create a vent in the ceiling	<ol style="list-style-type: none"> <li>1. The roof ridge cowling was removed leaving an opening approximately 8" wide and 78' long at the highest point of the building</li> <li>2. A continuous ventilator (approximately 5 1/2" high on both sides) was installed in the opening</li> <li>3. Chicken wire was installed below the opening in the roof</li> </ol>	<ul style="list-style-type: none"> <li>• Heat allowed to escape</li> <li>• Air circulation improved</li> <li>• Wild birds which pose a serious source of disease and parasites are prevented from entering</li> </ul>
Alternative production practices	<ol style="list-style-type: none"> <li>1. Reduce bird population by rigid culling in the 2<sup>nd</sup> – 3<sup>rd</sup> weeks</li> <li>2. Continue to reduce male populations by processing birds at the beginning of the 6<sup>th</sup> week</li> </ol>	<ul style="list-style-type: none"> <li>• Overall building population reduced to approximately 1,350 birds</li> <li>• Demonstrated lower mortality rates</li> </ul>
Reduce ambient daytime temperatures 	<ol style="list-style-type: none"> <li>1. Leucaena was planted</li> <li>2. Mr. Josephs researched a local variety, Bastard Cida, as conducive to the tropics. This tree was planted as well.</li> </ol>	<ul style="list-style-type: none"> <li>• Provides shade and cooler temperatures for the chicken houses</li> </ul>
Allow only one day between slaughter and delivery to market (previously would chill up to nine days per batch)	<ol style="list-style-type: none"> <li>1. Birds are chilled one evening</li> </ol>	<ul style="list-style-type: none"> <li>• Electricity bill reduced by an average of 40 percent</li> </ul>
Double production to meet market demand taking into consideration the need for streamlined production practices	<ol style="list-style-type: none"> <li>1. Additional house is being constructed; land has been dug out and concrete base laid. There is approximately two weeks of construction remaining</li> </ol>	<ul style="list-style-type: none"> <li>• Additional income will be generated</li> </ul>



Second Chicken House under construction



Foundation poured →



**ATTACHMENT A**

**Program Monitoring Tables  
Table's I-X**

**LAND O'LAKES, INC.**  
**WORLDWIDE FARMER-TO-FARMER PROGRAM**  
**INPUTS AND OUTPUTS**  
**YEAR 5, SEMIANNUAL 2**

**Table I.1-Annual Volunteer Inputs**

	<b>FY 00</b>	<b>FY 01</b>	<b>FY 02</b>	<b>FY 03</b>
A. Total LOP number of volunteers	31	91		
Male	26	77		
Female	5	14		
B. Annual number of international FTF volunteer trips	36	71		
C. Annual average cost per volunteer day	\$734	\$444		
D. Annual estimated value of FTF volunteers' professional time	\$129,595	\$301,893		

LAND O'LAKES, INC.  
 WORLDWIDE FARMER-TO-FARMER PROGRAM  
 INPUTS AND OUTPUTS  
 YEAR 5, SEMIANNUAL 2

Table I.2-Cumulative Number of Volunteers and Assignments by US State of Origin

Regions	States	Cumulative Number of Volunteers (see Table I.1, Row A)						Cumulative Number of Volunteer Assignments					
		Previous Total		This Period		New Total		Previous Total		This Period		New Total	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Northeast													
	Connecticut		1				1		1				1
	Delaware												
	Maine		1				1		1				1
	Maryland	1		2		3		2		3		5	
	Massachusetts			1		1				1		1	
	New Hampshire												
	New Jersey	2		1		3		2		1		3	
	New York	2				2	0	2				2	
	Pennsylvania	2	1			2	1	3	1			3	1
	Rhode Island												
	Vermont	3	1			3	1	3	1			3	1
	Washington, DC	2				2		4				4	
	<b>Subtotal</b>	<b>12</b>	<b>4</b>	<b>4</b>	<b>0</b>	<b>16</b>	<b>4</b>	<b>16</b>	<b>4</b>	<b>5</b>	<b>0</b>	<b>21</b>	<b>4</b>
Southeast													
	Alabama	1				1		1				1	
	Arkansas												
	Florida			2		2				2		2	
	Georgia	1				1		1				1	
	Kentucky												
	Louisiana												
	Mississippi												
	North Carolina												
	South Carolina												
	Tennessee												
	Virginia		1	1		1	1		1	1		1	1
	West Virginia												
	<b>Subtotal</b>	<b>2</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>5</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>5</b>	<b>1</b>
Midwest													
	Illinois			1		1				1		1	
	Indiana												
	Iowa	2				2		2				2	

	Kansas												
	Missouri	1		1		2		1		1		2	
	Nebraska	2				2		3				3	
	Ohio												
	<b>Subtotal</b>	<b>5</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>8</b>	<b>0</b>
Upper Midwest													
	Michigan	3		1		4		5		1		6	
	Minnesota	8	1	11	3	19	4	8	1	12	3	20	4
	North Dakota												
	South Dakota	1				1		1				1	
	Wisconsin	4	1	1		5	1	5	2	1		6	2
	<b>Subtotal</b>	<b>16</b>	<b>2</b>	<b>13</b>	<b>3</b>	<b>29</b>	<b>5</b>	<b>19</b>	<b>3</b>	<b>14</b>	<b>3</b>	<b>33</b>	<b>6</b>
Rocky Mountain													
	Colorado	3		1	1	4	1	3		1	1	4	1
	Idaho	1				1		1				1	
	Montana												
	Utah												
	Wyoming			1		1				2		2	
	<b>Subtotal</b>	<b>4</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>6</b>	<b>1</b>	<b>4</b>	<b>0</b>	<b>3</b>	<b>1</b>	<b>7</b>	<b>1</b>
West Coast													
	Alaska	1				1		1				1	
	Hawaii	1				1		1				1	
	California	3	2	1		4	2	3	2	2		5	3
	Oregon	1		1	1	2	1	1		1	1	2	1
	Washington												
	<b>Subtotal</b>	<b>6</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>8</b>	<b>3</b>	<b>6</b>	<b>3</b>	<b>3</b>	<b>1</b>	<b>9</b>	<b>4</b>
Southwest													
	Arizona												
	Nevada												
	New Mexico	1		1		2		1		1		2	
	Oklahoma												
	Texas												
	<b>Subtotal</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>0</b>
other													
	Mexico	1				1		2				2	
	Puerto Rico			1		1				1		1	
	Holland			1		1				2		2	
	US Virgin Islands			1		1				1		1	
	<b>Subtotal</b>	<b>1</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>6</b>	<b>0</b>
	<b>TOTAL</b>	<b>47</b>	<b>9</b>	<b>30</b>	<b>5</b>	<b>77</b>	<b>14</b>	<b>56</b>	<b>11</b>	<b>35</b>	<b>5</b>	<b>91</b>	<b>16</b>

LAND O'LAKES, INC.  
 WORLDWIDE FARMER-TO-FARMER PROGRAM  
 INPUTS AND OUTPUTS  
 YEAR 5, SEMIANNUAL 2

**Table II-Annual Volunteer Outputs**

	FY 00	FY 01	FY 02	FY 03
A. Annual estimated value of resources leveraged by the grantee/volunteers in the U.S.	\$8,159	\$12,380		
B. Annual estimated value of resources leveraged by the host in host country	\$11,887	\$45,695		
C. Annual estimated value of resources mobilized by Host	\$0	\$0		
D. Annual total number of direct beneficiaries of FTF volunteer assistance	486	980		
Male	425	639		
Female	61	341		
1. Annual number of persons receiving direct formal training (a subset of direct beneficiaries)	294	620		
Male	261	379		
Female	33	241		
E. Annual number of Hosts who have participated in U.S. based training and exchange programs through all sources (e.g. USIA, NET, Cochran, etc.)	3	0		

**Table III - FTF Host Assignments Cumulative Summary**

FTF Hosts	Previous Total	New Total
A. Host with a single FTF assignment.	20	58
B. Hosts with multiple FTF assignments.	19	22
<b>Total number of Hosts</b>	<b>39</b>	<b>80</b>

LAND O'LAKES, INC.  
 WORLDWIDE FARMER-TO-FARMER PROGRAM  
 INPUTS AND OUTPUTS  
 YEAR 5, SEMIANNUAL 2

Table IV - Annual and Cumulative Total Number of FTF Hosts

Host Categories	FY 00		FY 01		FY 02		FY 03	
	Annual	Cumulative	Annual	Cumulative	Annual	Cumulative	Annual	Cumulative
A. Private Enterprises	1	1	25	26				
B. Organizations	23	23	18	41				
C. NGOs	3	3	6	9				
D. Rural Financial Institutions	0	0	0	0				
<b>Total Number of Hosts</b>	27	27	49	76	0	0	0	0

LAND O'LAKES, INC.  
WORLDWIDE FARMER-TO-FARMER PROGRAM  
IMPACTS WITH HOSTS  
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Table V. Hosts with Improved Business Operations as a Result of Grantee/Volunteer Assistance

FTF Hosts	FY 00			FY 01			FY 02			FY 03		
	Hosts Assessed	Hosts Impacted	% of Hosts Impacted	Hosts Assessed	Hosts Impacted	% of Hosts Impacted	Hosts Assessed	Hosts Impacted	% of Host Targeted	Hosts Assessed	Hosts Impacted	% of Hosts Targeted
A. Number of hosts providing new or improved products and/or services.	11	7	64%	17	3	18%						
B. Number of hosts with production increases over pre-assignment levels.	11	4	36%	17	6	35%						
C. Number of hosts with increased business efficiency or resource conservation.	11	3	27%	17	2	12%						
D. Number of hosts receiving increased revenue/resources through increased sales receipts as a result of grantee/volunteer intervention.	11	6	55%	17	6	35%						
E. Number of hosts with increased profits.	11	7	64%	17	8	47%						

Note: Numbers in "Host Assessed" column reflect only those hosts assessed during the FY01.

Table VI. FTF Hosts with Improved Organizational Capacity as a Result of Grantee/Volunteer Assistance

FTF Hosts	FY 00			FY 01			FY 02			FY 03		
	Hosts Assessed	Hosts Impacted	% of Host Impacted	Hosts Assessed	Hosts Impacted	% of Host Impacted	Hosts Assessed	Hosts Impacted	% of Host Impacted	Hosts Assessed	Hosts Impacted	% of Host Impacted
A. Number of organizations formed as a result of grantee/volunteer intervention.	11	1	9%	17	1	6%						
B. Number of hosts using new or improved planning techniques, program methodologies and/or management practices, including the use of a business plan or a strategic plan.	11	7	64%	17	2	12%						
C. Number of hosts with increased revenue/resources through new grants and/or increased fees.	11	2	18%	17		0%						
D. Number of hosts that have increased their membership as a result of grantee/volunteer interventions.	11	3	27%	17	1	6%						

Note: Numbers in "Host Assessed" column reflect only those hosts assessed during the FY01.

LAND O'LAKES, INC.  
 WORLDWIDE FARMER-TO-FARMER PROGRAM  
 IMPACTS WITH HOSTS  
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Table VII - FTF Hosts with Improved Services to Membership/Employees as a Result of Grantee/Volunteer Assistance

FTF Hosts	FY 00			FY 01			FY 02			FY 03		
	Hosts Assessed	Hosts Impacted	% of Hosts Impacted	Hosts Assessed	Hosts Impacted	% of Hosts Impacted	Hosts Assessed	Hosts Impacted	% of Hosts Impacted	Hosts Assessed	Hosts Impacted	% of Hosts Impacted
A. Number of hosts that have successfully intervened on behalf of members with government or business.	11	1	9%	17	3	18%						
B. Number of hosts with new training courses or new subject matter for courses to use with membership or associates.	11	0	0%	17	0	0%						
C. Number of hosts with improved training materials and skills.	11	0	0%	17	0	0%						

Note: Numbers in "Host Assessed" column reflect only those hosts assessed during the FY01.

LAND O'LAKES, INC.  
 WORLDWIDE FARMER-TO-FARMER PROGRAM  
 IMPACTS WITH HOSTS  
 YEAR 5, SEMIANNUAL 2

Table VIII - FTF Host with Improved Financial Services to the Agricultural Sector as a Result of Grantee/Volunteer Assistance

FTF Hosts	FY 00			FY 01			FY 02			FY 03		
	Hosts Assessed	Hosts Impacted	% of Hosts Impacted	Hosts Assessed	Hosts Impacted	% of Hosts Impacted	Hosts Assessed	Hosts Impacted	% of Hosts Impacted	Hosts Assessed	Hosts Impacted	% of Hosts Impacted
A. Number of Hosts with an increased number of agricultural related loans	11		0%	17		0%						
B. Number of Hosts with loan delinquency rate < 10%	11		0%	17		0%						
C. Number of Hosts that provide improved banking services to the agricultural sector												1
1. Number of Hosts with an increase in average loan size	11		0%	17		0%						
2. Number of Hosts with an increase in Producer Portfolio Value (ag production and processing loans)	11		0%	17		0%						
3. Number of Hosts with an increased number of Branches/Groups	11		0%	17		0%						
D. Number of Hosts with an increase in Enterprise Portfolio Value (microfinance loans)	11		0%	17		0%						

Table IX - FTF Hosts with Improved Use and/or Protection of the Environment as a Result of Grantee/Volunteer Assistance

FTF Hosts	FY 00			FY 01			FY 02			FY 03		
	Hosts Assessed	Hosts Impacted	% of Hosts Impacted	Hosts Assessed	Hosts Impacted	% of Hosts Impacted	Hosts Assessed	Hosts Impacted	% of Hosts Impacted	Hosts Assessed	Hosts Impacted	% of Hosts Impacted
A. Number of Hosts adopting one or more practices to improve waste or pollution management.	11	0	0%	17	0	0%						
B. Number of Hosts adopting one or more practices to improve natural resources management (soil, water, forest, grazing lands, national park land, etc.).	11	3	27%	17	3	18%						

Note: Numbers in "Host Assessed" column reflect only those hosts assessed during the FY01.

LAND O'LAKES, INC.  
 WORLDWIDE FARMER-TO-FARMER PROGRAM  
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Table X - Increased Awareness in the U.S. Agricultural Sector Concerning International Agricultural Development

Indicators	FY 00	FY 01	FY 02	FY 03
A. Number of FTF volunteers who have performed public outreach activities.	4	8		
B. Number of media events by implementors and FTF volunteers.	8	5		
C. Number of group presentations by implementors and FTF volunteers.	6	6		

**ATTACHMENT B**

**Semiannual Financial Summary**

**ATTACHMENT C**

**Newspaper Article**

*Returns from Jamaica, Jamaica, WWFTF Recipient*

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COLUMBIA. - Corn farmers  
ouldn't be overly concerned if  
suspect herbicide damage in  
y emerged fields, said a Uni-  
ty of Missouri weed scientist.  
Ve're getting substantially  
er than normal reports of  
y-whipped or partially unfurled  
seedlings-a sign of damage  
chloroacetimide herbicides,"  
Bill Johnson, extension weed  
alist. "But as long as the plants  
green and alive, and the corn  
isn't reduced from other fac-  
s well, that damage alone isn't  
son to replant."  
Johnson said he annually gets a  
phone calls about such dam-  
which is related to cold, wet  
ing conditions and the use of  
soil-applied pre-emergence  
icides. When cold and wet,  
plants grow slowly, and they  
unable to process the small  
ants of herbicide they take in  
soil water. Effected plants will

# Returns from Jamaica

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David Hortenstine recently completed a three-week trip to Mafoota Jamaica to develop a five-year business plan for the Mafoota Agriculture Cooperative. Cooperative principles and accounting/business principles were also taught. The trip was sponsored by the farmer-to-farmer program of the United States Agency for International Development. Land O Lakes International Development Division was the project coordinator. The Mafoota Agriculture cooperative sells high quality vegetables to resorts including Sandals located in Montego Bay.

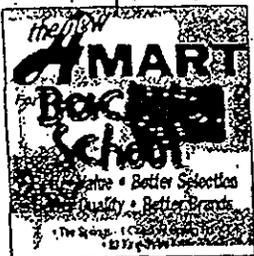
## Low corn prices, rising fuel costs provide short-term optimism

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## ATTACHMENT D

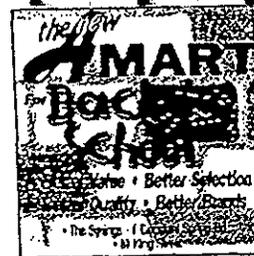
### Newspaper Article

*Mushroom Cultivation Consultant visits Jamaica, Jamaica, WWFTF Recipient*



# The Gleaner

ESTABLISHED 1834



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VOLUME 167 NO. 193 KINGSTON, JAMAICA, 28 PAGES

SATURDAY, AUGUST 18, 2001 \$15

## Mushroom cultivation consultant visits Jamaica

CONSULTANT, MICKEY Foley, a specialist in mushroom cultivation, was in the island recently to assist local mushroom farmers increase production.

According to Harold Graham, president of the Mushroom Growers' Association, Mr. Foley's visit was made possible under the United States Agency for International Development 'Farmer to Farmer' programme.

"Mr. Foley made a few worthwhile suggestions on how to use improved technology in mushroom cultivation. He visited almost all of the mushroom farms," he said.

Currently there are five active mushroom farmers in Kingston and St. Andrew and parts of St. Catherine.

Noting that the mushroom industry has the potential to supply the local market, Mr. Graham

said Jamaica had the capability to increase production of the delicacy.

"The business is lucrative but there are a lot of problems such as farmers not getting the quality substrate, especially the grass that is required for adequate growth and is necessary in preventing contamination of the mushroom."

Pasteurisation, he said, did not kill contaminants in the grass, especially mole spores.

Jamaica is producing below two per cent of its mushroom consumption, which equates to approximately 5,000 kg.

"Jamaica's production is just a little drop in the bucket. The industry needs financing from the Government as most of the effort is private," Mr. Graham explained.

Source: Jamaica Information Service

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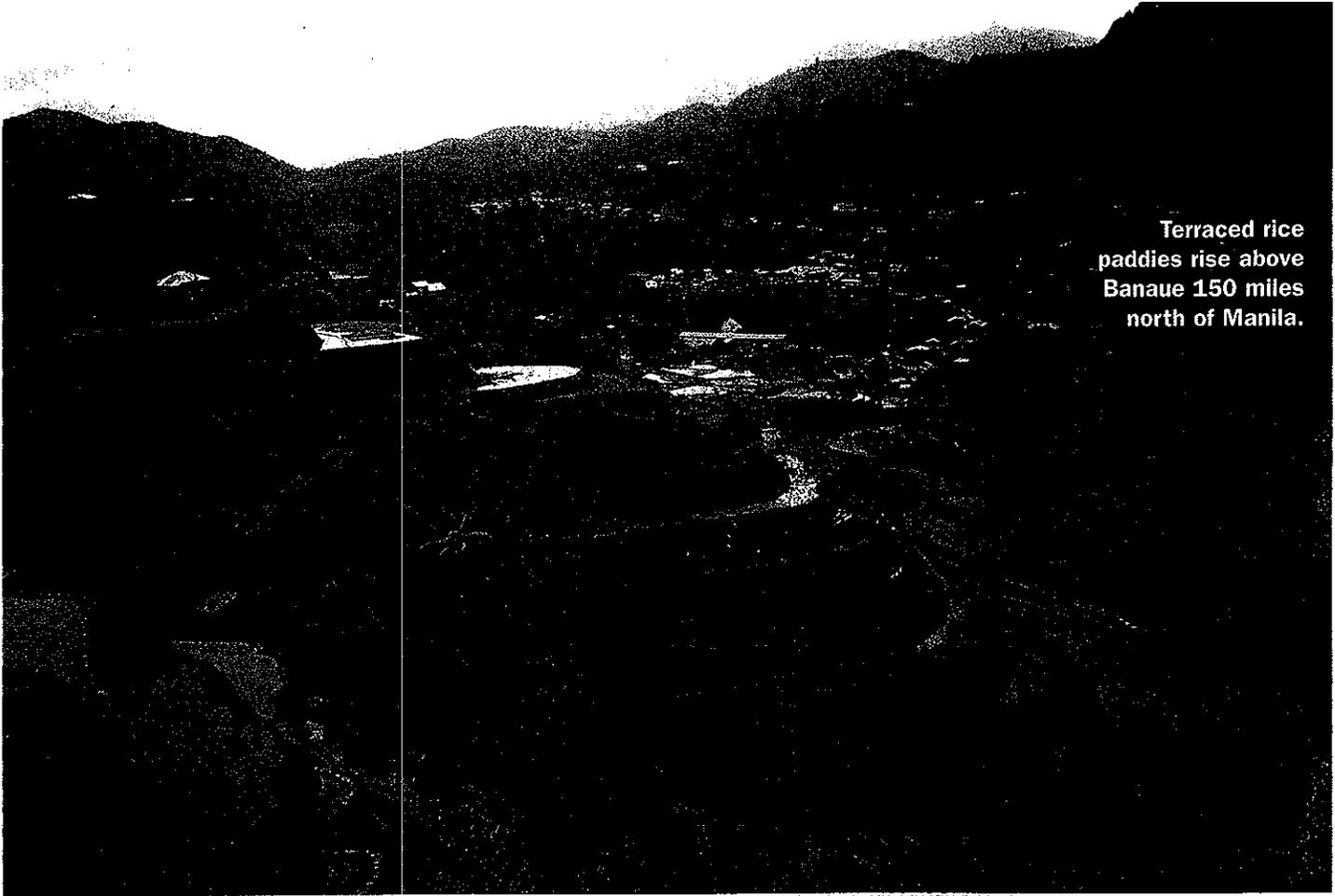


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# **ATTACHMENT E**

**Publication**

***Lessons on Water, Philippines, WWFTF Recipient***



Terraced rice paddies rise above Banaue 150 miles north of Manila.

# Lessons on water

Engineer learns, teaches on Philippine island

—Photos by Brad Wind

**F**irst, said Brad Wind, forget everything you know about water.

Wind, Water Resources Engineer I at the District, spent three weeks in the Philippines earlier this year. The trip was part of a Farmer-to-Farmer Program, a Land O Lakes, Inc. humanitarian effort. The butter manufacturer sponsors experts' trips to Third World countries to consult in their areas of expertise.

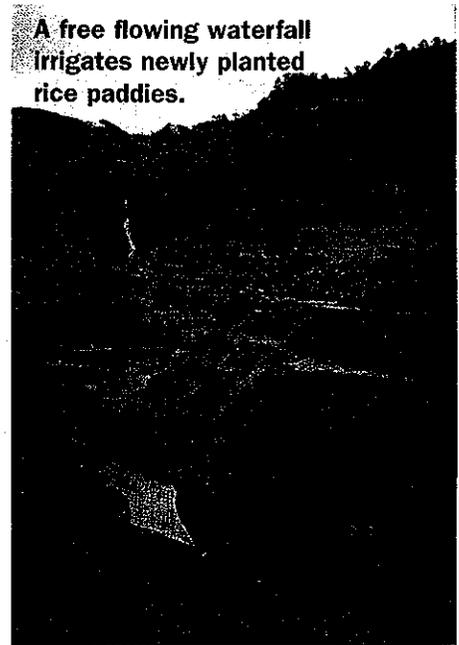
"Here, typically, as people in the water business, we tend not to think about the social or cultural ramifications of what we come up with. There, design and hydraulics are such a small part. You have to concentrate on how X will affect Y.

"We make everything so clean in America. We compartmentalize. There, you could try to do it but it doesn't work because there are so many things that hinge on other things. It's pyramidal."

Wind was stationed on the northern main island of Luzon, one of more than 7,000 that make up the archipelago.

The Philippines are off the southeast coast of China. Spanish settlers founded the Philippine capital, Manila, in 1571. Spain ceded the islands to the United States for \$29 million after the Spanish-American War in 1898. One week after Pearl Harbor, Japan attacked the Philippines and occupied the islands during World War

A free flowing waterfall irrigates newly planted rice paddies.



II. A republic was established in 1946.

The islands have roughly the same area as Colorado. The Philippines' population totals more than 70 million compared to Colorado's 4.3 million. Annual rainfall in the Philippines averages 70 inches.

"I went over to advise and consult on potable rural water delivery systems," Wind said.

plan local U.S. Peace Corps volunteers could use in the future.

"They (Filipinos) know the technology, but they skipped the infrastructure," Wind said. When he's consulted in other countries before, he hasn't "had the luxury of having Peace Corps volunteers to keep things going."

Some of the pipe for the projects was damaged during shipping, and

mountain, through terraced rice paddies and down to the villages. Before Wind's arrival some water lines had been improperly installed. Wind pointed out that at several locations, the plastic pipe was heated in a fire pit and then bent to form a shoddy elbow. Some lines were buried only inches deep, and were easily exposed and damaged.

Each step along the way Wind bumped up against cultural and language barriers.

"Here in the States we are accustomed to always having a safe and pristine drinking water supply," Wind said.

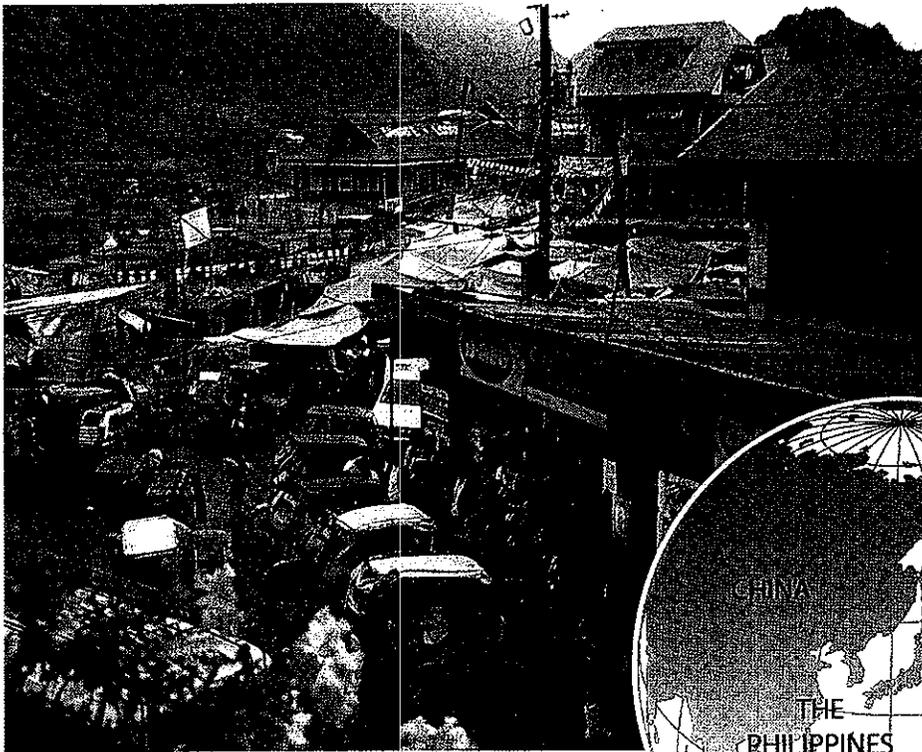
In a Third World country, Wind said, it takes time to teach people what having a clean, reliable water supply means.

"This can be extremely difficult if the advantages conflict with existing cultural and social traditions,"

he said.

Despite the difficulties, Wind said he'd do it again.

"I felt like I accomplished something."



Motorized trikes line Banaue's main street. Rain tarps protect open air market booths.

The Municipality of Banaue, said Wind, has a near pristine water supply that keeps its rice terraces emerald green. Located 150 miles north of Manila, what its 18 barangays, or villages, don't have is a water storage or distribution network. National funding supplied several of Banaue's barangays with a fixed length of steel and PVC pipe, said Wind, and money for labor and materials.

Wind's role: to figure out how to use the given materials to design a

what was supplied wasn't always suitable. And, rusted threads rendered some useless. Replacement parts were nearly impossible to obtain, so Wind said he, the Peace Corps volunteer and workers improvised.

"The process takes a lot of fitting and forethought," Wind said. "The trick was to get what you had to work." The object was to thread pipe from a natural spring atop a

