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ISA 8513

**Consultancy Report**  
***Report on Joint U.S.-Japanese Technical Assistance Mission to Tonga***

***U.S.-Japan Collaboration Project***  
**Contract Number: OTR-0192-A-00-9052**

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March 1993

PD - ABA-456

**CONSULTANCY REPORT ON  
JOINT U.S. - JAPANESE TECHNICAL ASSISTANCE MISSION TO TONGA  
FOR THE  
U.S. - JAPANESE COLLABORATION PROJECT  
COOPERATIVE AGREEMENT NO. 954 - 0192 - A - 00 - 9052 -00  
AMENDMENT NO. 14**

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**March 12, 1993**

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### **Acronyms Used**

<b>ACDI</b>	<b>AGRICULTURAL COOPERATIVE DEVELOPMENT INTERNATIONAL</b>
<b>FIMCO</b>	<b>FRIENDLY ISLAND MARKETING COOPERATIVE</b>
<b>JICA</b>	<b>JAPANESE INTERNATIONAL COOPERATIVE ASSISTANCE</b>
<b>MAF</b>	<b>MINISTRY OF AGRICULTURE AND FORESTRY</b>
<b>MCLI</b>	<b>MINISTRY OF LABOUR, COMMERCE, INDUSTRY AND TOURISM</b>
<b>M T</b>	<b>METRIC TONS</b>
<b>TCF</b>	<b>TONGA COOPERATIVE FEDERATION</b>
<b>TDB</b>	<b>TONGA DEVELOPMENT BANK</b>
<b>T\$</b>	<b>TONGA PA'ANGA (DOLLARS)*</b>
<b>US\$</b>	<b>UNITED STATES DOLLARS</b>
<b>ZENCHU</b>	<b>CENTRAL UNION OF AGRICULTURAL COOPERATIVES - JAPAN</b>
<b>ZEN-NOH</b>	<b>AGRICULTURAL FARM SUPPLY AND MARKETING COOPERATIVE JAPAN</b>

**\*Unless stated otherwise, the exchange rate applicable for this report is T\$1.37 to US\$1.00.**

## EXECUTIVE SUMMARY

Several factors have encouraged the management of FIMCO to develop plans to expand their current farm supply business.

- The success of the fishing supply business which management feels can be replicated in farm supplies. Sales of T\$1,156,000 and profits of T\$89,000 for the period 3/31/86 through 12/31/91. (T\$1.20 to US\$1.00)
- The successful introduction of fertilizer in 1991 which resulted in sales for 1991 and 1992 of T\$48,000 and gross margins of T\$9,800. (T\$1.24 to US\$1.00)
- The anticipated squash allocation from the MAF to FIMCO making FIMCO and its grower-members authorized exporters of squash.

Initial efforts in farm supplies will be in crop production products (seed, fertilizer and agri-chemicals) which are required annually by growers. Expansion into production equipment (shovels, hoes, brush cutters, etc.), which have long replacement cycles, will be implemented when gross margins generated from crop production sales are at a level that will finance the entry into production equipment.

As a result, the farm supply business will be developed in three stages and carefully monitored for growth and profitability.

**Stage I** is administrative, with efforts to secure the squash allocation and proper licensing to sell agri-chemicals. Efforts are currently underway to accomplish this.

Stage I also involves FIMCO with ACIDI, Zenchu, JICA and MAF to secure the technical services of a horticultural produce marketing specialist from Japan to come to Tonga to work with FIMCO and Tongan growers.

**Stage II** calls for the development of the seed, fertilizer and agri-chemical farm supply business to support the production requirements of key crops grown in Tonga. A search for sources of supply is currently underway.

**Stage III** introduction of production equipment supplies will depend primarily on the success of the crop production segment of the business and FIMCO's ability to find vendors with competitive prices who are willing to ship in relatively small quantities.

Product lines have been identified and initial order size determined. It is anticipated this facet of the farm supply business will be developed during calendar 1994. However, discussions with sources of supply will be carried on during calendar 1993.

Projections for Stage II business for the first 12 months of operation are sales of T\$586,860 and a gross margin of T\$114,196. (Sales of US\$428,364 and gross margins of US\$83,354) Mark-ups of 10 per cent on fertilizer and 33 per cent on seed, agri-chemicals and production equipment are projected.

Inventories will be kept at the lowest possible level by pre-booking as much product as possible allowing FIMCO to have firm grower orders before placing orders with vendors. Growers will be expected to pick up their pre-booked fertilizer at the dock.

Administratively, farm supplies will be combined with fishing supplies to form a new department called "Supplies". Existing fishing supply formats will be used for the new Supplies Department operating statement and inventory control. Internal records will keep farm supply sales and margins separate from fishing supply sales and margins.

Initial plans call for crop production supplies to be stocked in the existing fishing supplies store in Nuku'alofa. Vava u' growers will be served on an order basis until the government operated fumigation chamber is operational in 1994. At that time, a decision will be made whether or not to enlarge the current fishing supplies store in Vava u' and carry farm supplies at that location.

Other opportunities for FIMCO to consider at some point in the future are a joint venture with a trading company, growing seedlings and a bulk fertilizer operation.

## Scope of Work

1. Determine the supply needs and the economic feasibility of a supply component.
2. Take farm supply catalogs to Tonga.
3. Identify the products needed and the sources of these products. Upon leaving Tonga, stop in Hawaii to determine possible sources.
4. Determine where any dangerous materials should be located and/or stored, taking into consideration concern for the environment, so that there is no risk to the people or the local environment.
5. Participate in the joint JA-Zenchu - Zen-noh assessment.
6. Identify areas of collaboration between a horticultural produce marketing specialist and an input supply specialist, i.e., sourcing of supplies for watermelon, cantaloupe, squash, etc. production.
7. Layout the scope of work and time frame for a short term input supply specialist to work in Tonga to help develop the supply business for FIMCO.
8. Determine what investment would be required by FIMCO.
9. Prepare a detailed draft technical report of activities and discuss it with the FIMCO general manager and John Kreag, ACDI Fiji agribusiness advisor, prior to departing from Tonga. The outline of this technical report should be agreed to by Jerry Lewis, Vice President for Asia, Near East and Pacific Region prior to preparation.
10. Other duties as may be assigned by Jerry Lewis which are consistent with the overall scope of this assignment.

Letter of Assignment  
January 4, 1993  
Donald R. Crane, Sr. Vice President,  
ACDI

## Methodology Used

The three stage farm supply development plan resulted from conversations and analysis with Ma'u Havea, secretary manager of FIMCO and 'Alipate 'U Vaka, FIMCO's produce manager.

Visits, on an undisclosed basis, were made to FIMCO farm supply competitor's stores:

PPEL  
(Primary Produce Export Limited)  
Toga Wire  
Utumoegalu Hardware  
Fua oe Fonua

Product line recommendations came from discussions with Havea, 'U Vaka, Board Chairman Viliami Foketi, Board member Kisepi Siale, grower Tevita Liti, MAF Nuku'alofa Vaini Research Station agronomist Finau Pole, Konrad Engleberger, head of Quarantine and Quality Management Division, MAF and his assistant Sione Foliaki.

Sales and gross margins projections were based on a selection of key crops, an estimate of the number of acres that FIMCO would provide crop production products for, an application rate provided by Engleberger and a T\$ amount allowed per acre established by the TDB for financing purposes.

## **Findings, Conclusions and Recommendations**

### **Introduction**

FIMCO is the result of a "spin-off" from TCF in 1986. Sales have grown from T\$285,000 to T\$2,946,000 in 1991. (T\$ 1.25 : US\$ 1). Net profits for the six years amount to T\$477,000. Membership has grown from 164 to 1880. Member equity was T\$605,000 in 1991.

The company is currently segmented into five profit centers - Handicrafts, Fish Marketing, Fishing Supplies, Vegetable Marketing and Vanilla Marketing.

A limited line of farm supplies was added in 1991 consisting of fertilizer, wire, hog feed, and bush knives.

For a complete analysis of FIMCO operations refer to:

Final Evaluation  
USAID/RDO/SP Activity FIMCO  
Letter June 12, 1992  
from John B. Woods,  
Regional Director USAID  
Reference AO301321.022

### **Guidelines for the Development of the FIMCO Farm Supply Business.**

Farm supplies and fishing supplies will be combined into one profit center called "Supplies Department".

- Separate sales and margin records for fishing and farm supplies will be kept.
- Existing formats for operating statements and inventory control will be used.

If FIMCO is successful in getting a squash allocation from MAF, a Squash Management Committee will be added to existing Vegetable, Fish, Vanilla and Handicrafts Committees.

- A Committee will not be formed for the Supplies Department operation.

Patronage refunds will not be paid on supply purchases.

Pricing will be competitive to slightly lower than other providers of farm supplies.

- FIMCO's image will be "best prices for best quality".
- The Supplies Department is expected to be profitable.
- Mark-up goals are 10 per cent for fertilizer and 33 per cent on other farm supply lines.
- Future pricing may be developed in this manner:

Good Price - Product purchased from one of FIMCO's supply stores.

Better Price - For growers who have signed firm orders for product from FIMCO before FIMCO places an order, but do not have production contracts.

Best Price - Growers with production contracts with FIMCO who have signed firm orders for supplies prior to FIMCO placing an order.

Efforts will be made to keep inventories and warehousing functions to a minimum. As much product as possible will be pre-booked and picked up at dockside by the growers. Remaining inventory will be delivered to supply stores. Inventory levels will be monitored using the system developed for fishing supplies.

The fishing supply store in Nuku'alofa will stock farm supplies. Store hours will be 8 a.m. to 5 p.m. Monday through Friday and 8 a.m. to 12 noon on Saturday.

If space is not adequate, or the combining of fishing supplies and farm supplies at retail does not prove effective, additional space is available next to the fishing supply store and will be leased by FIMCO.

Vava'u growers will initially be served on an order basis from Nuku'alofa. The Tongan government is planning on building a fumigation chamber in Vava'u which should be operational next year. At that time FIMCO will evaluate the profitability of a larger supply store which would stock both fishing and farm supplies.

No additional staff is anticipated during the start-up phase. If a separate store is opened in Nuku'alofa, one person will be added.

The Supply Department will be supervised by the Secretary Manager Ma'u Havea Alani Taliauli will manage the Nuku'alofa store.

All farm supply sales will be for cash.

### **Farm Supply Development Plan**

#### **Assumptions for Development of the Crop Production Farm Supply Business.**

- Normal growing conditions will prevail.
- MAF will issue an allocation to FIMCO to grow squash. See Attachment II.
- Export markets can be found with favorable prices for growers.
- MAF will grant FIMCO a license to sell agri-chemicals. See Attachment III.
- Vendors can be found for fertilizer, seeds and agri-chemicals with prices which allow FIMCO to be competitive with other farm supply businesses. See Attachment XI.

### **Stage I - Administrative - Immediate**

- Secure a squash allocation for 1993 from MAF.
- Apply for, and receive, a license from MAF to sell Agri-chemicals.
  - Train all employees in proper methods of storing and selling the product.
  - Take proper steps to maintain a safe environment wherever agri-chemicals are stored, sold or used.
- Work with ACIDI, ZENCHU, JICA and MAF as needed, to secure the services of a Japanese horticultural produce marketing specialist, who will counsel Tongan growers on seed varieties, agri-chemical use and production methods necessary to market squash and other products.

### **Stage II - Crop Production Supplies - Immediate**

- Develop a seed, fertilizer and agri-chemical crop production business that will support the growing of these crops:

Squash  
 Watermelons  
 Capsicum  
 Zucchini  
 Cassava  
 Tomatoes  
 Taro (3 varieties)  
 Yams  
 Carrots  
 Lettuce  
 Cabbage  
 Beans  
 Parsley  
 Green Onions  
 Vanilla  
 Kava

## **Assumptions for Development of the Crop Production Equipment Farm Supply Business.**

10

- Vendors will be found that are willing to ship the small quantities at prices which will allow FIMCO to be competitive with other farm supply businesses and generate the gross margins necessary to grow the business. See Attachment X.
- Consolidators will fill containers with mixed merchandise.
- Mixed merchandise containers can be stowed properly to reduce breakage.

## **Stage III Production Equipment Farm Supplies - Calendar Year 1994.**

- Bring the crop production equipment hard lines that have been identified into the farm supplies section of the Supply Department.
  - Various vendors will be contacted for specifications, shipping capabilities and pricing throughout 1993.
- The major portion of cash required for purchasing crop production equipment will flow from the margins generated by the sale of seed, fertilizer and agri-chemicals.
- Addition of specific lines will be based upon needs of the growers, replacement cycles and the ability to generate gross margins sufficient to carry the inventory for a period of time needed to sell the product.

## **Short Term Input Supply Specialist**

In discussions with Ma'u Havea it was generally agreed that an input supply specialist should have a thorough knowledge and understanding of Tongan agriculture, farming practices and existing competitive conditions to be effective in sourcing crop production equipment and, to a lesser degree, crop production supplies. Therefore funding the expenses of Havea to do some traveling to seek out suppliers who are interested in doing business in Tonga and

willing to meet pricing and shipping requirements would have the most immediate impact on FIMCO's desire to expand its farm supply business.

If only technical support is available, I recommend finding someone with a strong agronomic background capable of advising in the areas of seed bed preparation, planting populations and techniques, chemical and biological pest and weed control and fertilizer usage and application.

This person should have experience growing the crops mentioned earlier in this report and be able to soil sample and set up test plots to show results from different tillage, fertilizer and chemical practices and applications. Strong communications skills will be needed to explain results and differences and to convince Tongan growers.

Some may feel this is the responsibility of MAF and their research stations. Conversations with staff at the Vaini Research Station in Nuku'alofa indicated that they are at a very basic level of recommendations to growers and are now just beginning serious efforts at soil sampling and mapping.

It is Havea's opinion that MAF's fertilizer recommendations are extremely conservative. Based on his experimentation with increased fertilizer application rates, production has tripled, which would more than cover the costs of the additional fertilizer.

It is also important to understand that TDB finances growers based on fertilizer recommendations from MAF. Therefore any research that FIMCO does that will encourage MAF to suggest higher rates of application will shift the burden of financing increased fertilizer use from FIMCO to TDB and increase the opportunity for FIMCO to sell more fertilizer.

Technical support should emphasize, and prove, that a more aggressive approach to growing will add profits to Tongan growers and strengthen the Tongan economy.

It would be most effective to have the short term input supply specialist in Tonga at the same time the horticultural produce marketing specialist from Japan is in Tonga. Ideally both of these people should be in Tonga shortly before planting, during the

growing season and through harvest to have maximum benefit to FIMCO. If this is not possible, I would recommend they arrive shortly before planting and remain as long as possible. Ma'u can be more specific as to exact dates.

## **Other Opportunities**

### **Joint Venture**

Long term, FIMCO, with help from ACDI, should explore the possibilities of a joint venture with an international trading company.

FIMCO growers are blessed with fertile soil, a favorable climate and an aggressive marketing cooperative. In Ma'u's words, "You tell us what you want us to grow and we will grow it."

What they do not have, is money and an international presence to seek out niche markets and capitalize on their growing capabilities.

A joint venture would assure a trading company of a guaranteed source of supply that would meet the specifications of the niche market buyer at a price that would be profitable for both parties. FIMCO growers would have new markets and stabilized prices that cover the cost of production plus an agreed upon level of profit.

Both partners could share profits when profits exceed a given level.

UNICOOPJAPAN (UNICO), a trading company that is a subsidiary of Zen Noh might be a starting point for a discussion of this idea.

### **Growing Seedlings**

Ma'u feels that there could be an opportunity for FIMCO to grow seedlings for its members, i.e. tomatoes, peppers, etc. which would benefit FIMCO in two ways - provide a new service to members which is not now being offered by other suppliers and serve as a way to convert unsold seed inventory into value added products.

### **Bulk Fertilizer Operation**

Tonga's current fertilizer industry and practices are reminiscent of the early 1950's in Minnesota. All fertilizer is bagged and only certain formulas are being sold without regard to varying soil types

and nutrient levels. A company with the courage to do an aggressive soil sampling program coupled with custom fertilizer blending to meet the requirements of soil tests could become the established leader in the fertilizer business at a relatively modest investment.

A more immediate concern for FIMCO should be purchasing a simple bagging unit and buying established formulas in bulk. Discussions with several fertilizer suppliers in Hawaii indicated that freight savings of as much as \$600 per ton could be achieved by buying pre-mixed formulas in bulk and bagging in Tonga. Information has been forwarded to FIMCO on bagging equipment and costs.

### TCF

The Woods report says that TCF has a Tongan in the United States to work with vendors, and consolidate container shipments. FIMCO should discuss, with TCF management, the possibility of using the services of this person, for a fee, to help develop US sources for FIMCO's farm supply business.

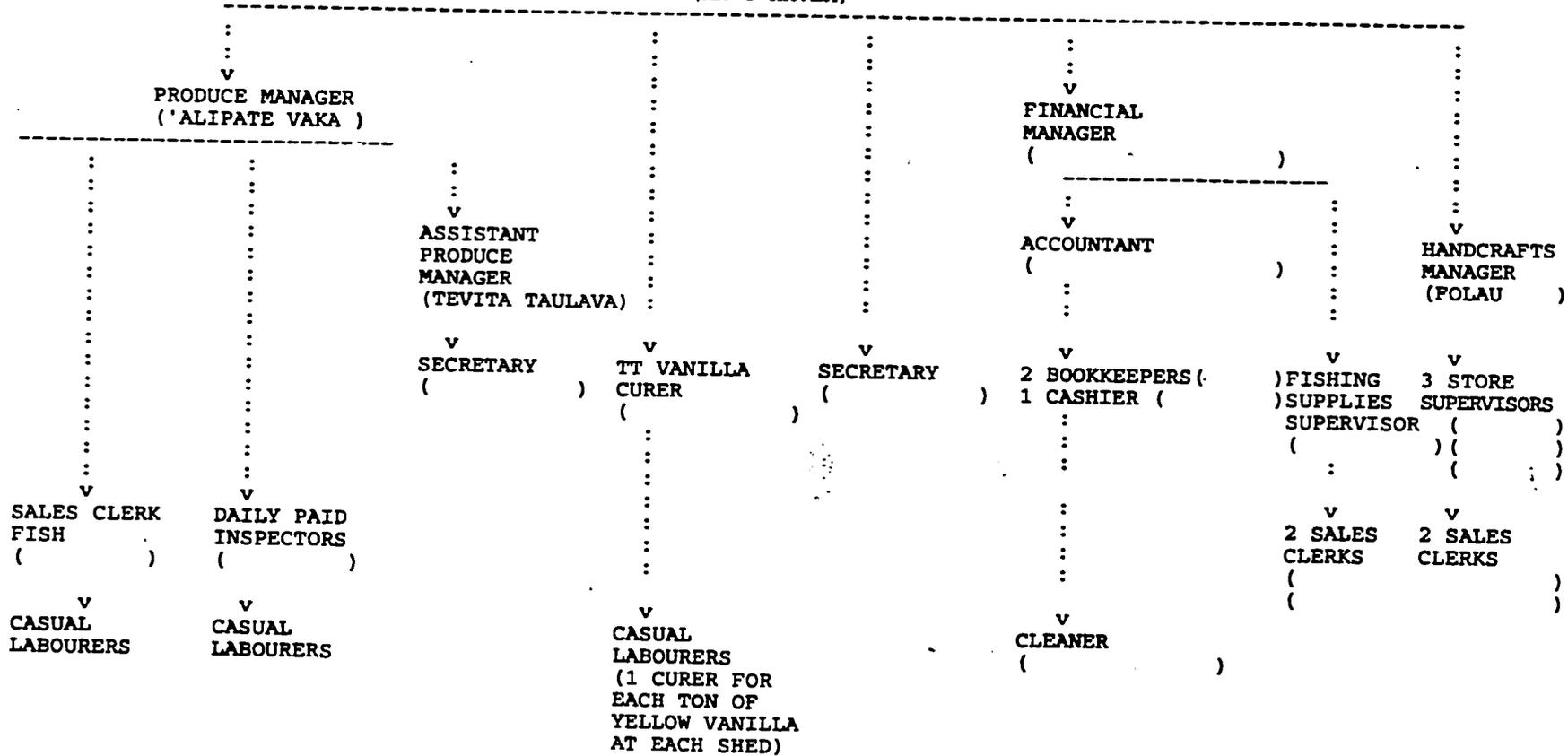
ATTACHMENT I

ef/A0418208.051

FIMCO ORGANIZATION CHART - NUKU'ALOFA

3 OF 3

SECRETARY MANAGER  
(MA'U HAVEA)





## ATTACHMENT II

COPY

Ref/S0502825.013

25 January 1993

Hon. Minister Tutoatasi Fakafanua  
Ministry of Agriculture and Forestry  
Nuku'alofa  
TONGA

Dear Hon. Minister

There have been various attempts made by the Friendly Islands Marketing Cooperative Ltd. (FIMCO) in its effort to expand and to penetrate into Japanese markets, but so far we have been unsuccessful. Another attempt is now jointly made by FIMCO, Agricultural cooperative Development International (ACDI) of the United States and JA-ZENCHU of Japan, in which ACDI and JA ZENCHU agree to :-

- Identify some potential produce that can be of high export value not only to Japan but other countries.
- Provide technician to help in developing the produce to ensure high yield and meet quality acceptable in Japanese markets and,
- Provide some equipments for handling eg. Forklift etc.

Although the project was primarily aimed at Watermelon, it has now proved that watermelon may not be the best produce because the Japanese are reluctant to support such project that can compete with their farmers. Also the niche market for watermelon does not guarantee a good price as it is in winter time and the consumption may not be high enough. Therefore ACDI and JA-ZENCHU decided to start with squash and gradually develop to some other potential produce.

A representative of ZENNOH, Mr. Washiyama, accompanied the ACDI representative, Al Oukrop and JA-ZENCHU representatives, Mr. Matuda and Mr. Higuchi. ZENNOH is a gigantic and a very powerful marketing federation of agricultural cooperatives. The ZENNOH representative joined the Survey team to identify the acceptable varieties, allowable chemicals and chemical specifications, and give estimation of quantity they would buy if we meet quality standards identified.

The project costs over USD 200,000 and is fully paid for by ACDI and JA-ZENCHU. This includes equipment and a technician to advise on squash growing. However the precondition would be for FIMCO to secure a squash allocation for this year.

While squash allocation has not been done we feel that we should express our interest in advance. Your earliest consideration for approval our application to grow squash will help to ensure services of Japanese technician to advise Tongan growers on squash production practices that are consistent with Japanese requirements.

Yours faithfully

---

Ma'u Havea  
**SECRETARY/MANAGER**

MH/kt

*ATTACHMENT III*

Application Form for Registration of Pesticides  
Pursuant to the Pesticides Act, No.15 of 1975.  
(CONFIDENTIAL INFORMATION)

To : The Registrar of Pesticides  
Ministry of Agriculture and Forestry,  
P.O.Box 14, Nuku'alofa  
Kingdom of Tonga.

Date.....

Dear Sir :

I, .....  
(person completing application) (designation)

on behalf of .....  
(name and address of firm or company in Tonga)

do hereby make application for full registration/provisional registration of the following pesticide which we intend to import into Tonga, and state that the particulars of the pesticide are as follows.

1. Brand names :
2. Other common names, if any :
3. Nature of pesticide:  
(i.e.insecticide, fungicide, herbicide, etc.)
4. Formulation:  
(i.e. emulsifiable concentrate, wettable powder, etc)
5. Use:
  - a. Crops, animals, or products on which use is proposed:
  - b. General and specific pests against which recommended:
    1. Submit 5 efficacy studies relevant to the purpose for which this pesticide is recommended in Tonga.
  - c. Method (s) of application:
  - d. Prescribed application rate (s);
  - e. Proposed restriction on time of application;
  - f. Safety interval period (s) between the last application and the harvest of the crops:

6. Composition:

a. Active constituents:

Common names:

Chemical names:

Percentage (proportion in metric units of w/w, w/v, v/v,  
or in acid equivalent)

b. Mode of action of each active constituent:

c. Molecular and structural formulae each of the active  
constituents:

7. Residue data:

a. Nature of residues occurring in or crops/animals/products  
treated with the formulation under tropical or sub-tropical  
condition:

b. Submit Maximum Residue Limits as determined by the U.S., U.K.,  
Australia, and at least two other countries:

c. Information on persistence in soil and water and possible  
or known breakdown mechanisms:

8. Toxicological properties of each active constituent:

a. General toxicity to wild life, fish, and bees:

b. Acute toxicity (give LD<sub>50</sub> values on test animals):

1. Oral :

2. Dermal:

3. Respiratory:

c. Toxicity to skin and possible danger through inhalation:

d. Symptoms of poisoning:

1. Oral

2. Inhalation:

3. Dermal:

4. Eyes:

e. First aid and antidotes:

f. Note to physicians:

1. Warning signs and symptom of poisoning:
2. Treatment:

9. Use precautions:

a. Agents and chemicals with which product is known to be:

1. Compatible:
2. Incompatible:

b. Flamability:

c. Corrosiveness:

d. Stability on storage:

e. Stability on dilution:

f. Recommendations for cleaning glassware, measuring, and spray equipment:

g. Safety precautions for handling and application:

h. Procedures for both container disposal and disposal or deactivation of the excess pesticide:

10. Package material and pack size (dimension and net volume/weight) proposed for import and marketing:

11. Manufacturer name and address:

12. Action by other authorities:

a. Evidence of registration approval, revocation, or rejection by any statutory body outside Tonga:

List countries for which full registration of this production has been granted:

b. If rejected for revoked, give reasons:

13. Two copies of the draft label are submitted herewith for perusal. The word POISON, the type of pesticide, an appropriate cautionary statement concerning the use, handling, and safety of the product, and first aid instructions for burns and/or poisoning must appear in the native Tongan language on each label. The given Tongan registration number must also appear. All other aspects of the label should be in compliance with New Zealand pesticide labelling requirements).  
Refers. 20(1) (a) of the Pesticides Act 1981.

14. Name and address of proprietor/importer:

..... (signature of application)	..... (date)
FOR OFFICIAL USE ONLY	DO NOT WRITE BELOW THIS LINE.

1. Full registration/provisional registration granted with no restriction.
2. Full registration/provisional registration granted with the following restrictions:
3. Registration not granted for the following reasons:
4. Comments:
5. Registration No.

.....  
(Registrar)

.....  
(Date)

Passed in the Legislative Assembly this 23 day of September, 1981.

ATTACHMENT IV

JA

ITINERARY FOR JA-ZANCHU AND ZENNOH

DELEGATES - MR YUJI WASHIYAMA

MR MASAHIRO MATSUDA AND MR NAOKI HIGUCHI

**SATURDAY:** - 11 - 11:30 am - Settling at Dateline Hotel  
16/1/93  
:- 11:30 - 12:30 - Market Tour  
:- 12:30 - 6:00 - Free  
1:00 :- 9:00 - Sashimi Dinner at a Restaurant with  
Kiseipi Siale - Board Member, Tevita  
Liti - Growers Representative,  
Ma'u Havea - FIMCO Secretary/Manager,  
'Alipate Vaka - FIMCO Produce Manager,  
Al Oukrop - ACDI,  
~~Konrad Engleberger~~ - Principal  
Quarantine Officer.

**SUNDAY**  
17/1/93 11 - 4:00 pm - Island Trip

**MONDAY**  
18/1/93 9 - 10 - Konrad Engleberger  
10 - 11 - 'Inoke Vala  
Tonga Development Bank  
11 - 12 - Courtesy call to Minister of  
Labour, Commerce & Industries. Tutuafasi  
1:00 - Lunch FAKAFANUA  
2:00 - Departing for Airport  
3:30 - Leaving for Vava'u  
6:00 - Checkin Paradise Hotel.  
Leaving for Dinner at Vava'u  
beach resort.

**TUESDAY**  
19/1/93 9 - 3:00 pm - Field Trips  
- Visit chairman of the Board,  
Viliami Foketi, Farming  
operation.  
- Visit former chairman of the  
Board sini Nafe and his farming  
operation.  
4:00 - Depart for Airport  
5:00 - Leave for Tongatapu.  
7:00 - Arrive Dateline Hotel

**WEDNESDAY**  
20/1/93 8:30 - ~~4:00~~ - Wrap up with FIMCO  
10:30 p.m. - Leaving for Airport  
11:40 p.m. - Departure

SEIO NARA

## ATTACHMENT V

### Catalogs and other Information Provided to FIMCO

CENEX/LOL Plant Food and Chemical Program, 1993  
Sears Advertising Flyer  
1990 CENEX/LOL Farm Products Catalog  
1992 CENEX/LOL Lawn and Garden Catalog  
Tarp Straps Flyer  
Chopper Long Handled Tool Catalog  
Various Sprayer Catalog Sheets  
True Temper Long Handled Tool Catalog  
Bondhus Tools  
Mills Fleet Farm 1992 Spring Farm Catalog  
Mills Fleet Farm 1991 Spring Farm Catalog  
Stihl Brush Cutter Catalog  
Honda Tiller Catalog  
Honda Generator Catalog  
Toro Garden Tractor Catalog  
Echo Chain Saw and Trimmer Catalog  
Husqvarna Chain Saw Catalog  
Troy Built Mower and Tiller Catalog  
Brochure - United Agri Products, Inc.  
Catalog sheet, John Murcott, Inc. - Refractometers  
September 1992 SEED WORLD magazine  
A listing of Fish Wholesalers and Brokers in Hawaii  
Land O' Lakes complete Hog Feeding and Management Program  
Fertilizer Bagging Equipment Information  
and  
Summarized Financial Data on 299 CENEX Farm Supply Cooperatives  
with Fiscal Years ending between April 1, 1991 and March 31, 1992

Balance Sheet Averages  
Operating Statement Averages

## ATTACHMENT VI

### Estimated Sales of Seed By Crop

	Estimated Acres	Estimated Sales/Units	T\$ Amount
Squash	600	600kg	T\$120,000
Watermelon	40	40kg	3,000
Zucchini	2	3kg	180
Cabbage	20	10kg	640
Lettuce	20	10kg	640
Carrots	10	12kg	600
Tomatoes	30	15kg	750
Capiscum	20	10kg	500
Beans	5	100kg	750
		<b>Total Estimated Sales</b>	<b>T\$127,060</b>
		<b>Estimated Gross Margin</b>	<b>T\$ 31,526</b>

## ATTACHMENT VII

### Estimated Sales of Agri-chemicals by Crop

Squash	T\$60,000
Watermelons	4,000
Zucchini	200
Cabbage	1,000
Tomatoes	600
Capsicum	1,000
<b>Total Estimated Sales</b>	<b>T\$66,800</b>
<b>Estimated Gross Margins</b>	<b>T\$16,570</b>

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## ATTACHMENT VIII

### Estimated Sales of Fertilizer by Crop

<b>Squash</b>	Urea 46%	160,000kg	\$T72,000
	11.9-28.6-21.2+1.9S	160,000kg	112,000
<b>Watermelon</b>	Urea 46%	20,000kg	9,000
	11.9-28.6-21.2+1.9S	20,000kg	14,000
<b>Total Estimated Fertilizer Sales</b>			<b>\$T207,000</b>
<b>Estimated Gross Margins</b>			<b>T\$20,700</b>

## ATTACHMENT IX

### Projected Sales and Gross Margin

#### FIMCO Farm Supplies

Fiscal 1993

	Sales	Gross Margins
Fertilizer	T\$207,000	T\$20,700
Chemicals	66,800	16,570
Seed	127,060	31,526
Wire	50,000	12,400
Squash Bins	136,000	33,000
Total	T\$586,860	T\$114,196

## ATTACHMENT X

### Production Equipment Initial Order Forecast

Poly Film for weed control	25 rolls
Shovels (head only)	50
Digging Forks	35
Gloves	
Cloth	50 pr.
Leather	25 pr.
Rubber (fish cleaning)	50 pr.
Axe	
Splitting Mauls	3
Single Bit	10
Rakes	
Leaf	10
Garden	10
Chain Saws	3
Brush Cutters	2
Poly Gas Cans	
5 gallon	5
2.5 gallon	5
Protective Clothing	
Rubber Gloves	50 pr.
Rubber Boots	50 pr.
Eye Protection	50
Respirator	50
Disposable Suits	50
Wheel Barrows (6 cubic foot)	15

Two Wheel Farm Cart	10
Hoes (Push type)	50
Bach Pack Sprayers	
Engine	12
Manual	12
Shears (for cutting squash)	900
Wire	
Barb	40 spools
Chicken	20 rolls
Tire chains	20 pr.
Lawn Mowers	
Push type	3
Power	5
Rubber Hose	??
Hose Accessories	??

**ATTACHMENT XI**

**U.S. Vendors Who Have Expressed Interest in FIMCO**

**D.M. Ag Co. - Daniel May - Fertilizer**

**FAX 808-373-7770**

**Telephone 808-373-7051**

**HGP, Inc. - Rad Renton - Fertilizer/Agri-chemicals**

**FAX 808-842-5711**

**Telephone 808-841-3305**

**United Agri Products, Inc. - Bill Oglesby -Fertilizer/Seed/Agri-chemicals**

**FAX 808-836-1810**

**Telephone 808-836-1816**

**Hawaiian Fertilizer Sales, Inc. - Wayne Ogasawara - Fertilizer/Agri-chemicals**

**FAX 808-671-5919**

**Telephone 808-677-8779**

**Brewer Environmental Industries - Susan Chang - Fertilizer/Agr-chemicals**

**FAX 808-532-7500**

**Telephone 808-532-7440**

**University of Hawaii - Richard Sakouka - Seed**

**FAX 808-956-3894**

**Stanislaus Co-op - Stan Bettencourt - Fertilizer/Farm Hardware & Supplies**

**FAX 209-538-8079**

**Telephone 209-538-7070**

**Northrup King -Abe Adema-Sluis & Groot-Seed**

**FAX 31-2280-66312**

**Telephone 31-2280-66311**

*BJD*

**Jerry Ruzicka & Associates - Don Heiser - Back Pack Sprayers**

**FAX 612-739-0497**

**Telephone 612-739-0497**

## **ATTACHMENT XII**

### **Current FIMCO Farm Supply Vendors**

**BHB Steel - Waratah Brand Wire - Sidney, Australia**

**Pacific Fishing Ltd - Hog Feed - Suva, Fiji**

**CWF Exports Ltd.- Hog Feed - Auckland, New Zealand**

**Incitec Ltd. - NPK Fertilizer - Brisbane, Australia**

**Farmers Fertilizer, Ltd. - Urea 46% - Auckland, New Zealand**

**Robin Export - Bush Knives - Auckland, New Zealand**