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# MAHAWELI ENTERPRISE DEVELOPMENT

## MED/EIED PROJECT

(USAID/Sri Lanka Project No. 383 - 0090)  
(Contract No. C-00-0031-00)

### MONTHLY REPORTS OF COMMERCIAL FARMS, SYSTEMS B, C, H AND UDA WALAWE 1991 - 1992

by

**Earl R. Guise**

January, 1993

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INTERNATIONAL SCIENCE AND TECHNOLOGY INSTITUTE, INC.

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CONSULTANTS TO THE MAHAWELI AUTHORITY OF SRI LANKA

## The Mahaweli Enterprise Development Project

The development of the natural and human resources of the Mahaweli river basin has been a high priority of the Government of Sri Lanka and international agencies since the late 1970's. Largely completed are the construction of dams, irrigation and power systems, roads and other physical infrastructure, the settlement of the land and the formation of the agricultural production base. The challenge for the 1990's is to build a diverse, dynamic economy generating higher incomes for Mahaweli families. In meeting this challenge, the private sector has a leading role to play.

The Mahaweli Enterprise Development Project (MED) is a special initiative of the Mahaweli Authority of Sri Lanka, with the support of the United States Agency for International Development. MED promotes private investment and job creation in agribusiness, manufacturing, tourism, minerals and services by directly assisting entrepreneurs and companies with technical expertise, marketing support, training, business advisory services and credit. MED also provides policy analysis support to improve official frameworks for sustainable enterprise development in the Mahaweli areas.

The Employment, Investment and Enterprise Development Division of the Mahaweli Authority is responsible for MED implementation. Technical consultancy is provided by a consortium led by the International Science and Technology Institute, Inc., a private consulting firm with head offices in Washington, D.C. Also in the consortium are Agroskills, Development Alternatives, Ernst and Young, High Value Horticulture and Sparks Commodities. Marketing services are provided by SRD Research and Development Group, Inc.

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(Agribusiness Advisor)

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## P R E F A C E

Mr Earl Guise has been carrying out an assignment as the MED Agribusiness Advisor since April 1991. This document is a compilation of periodic reports on the individual Mahaweli commercial farms advised by Mr Guise.

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## SYSTEM B - SAPUKOTANA FARM

### **November 1991 :**

Farm survey, farm layout, drainage layout, investment history, profit and loss history, infrastructure investment, designed farm cropping program, wrote financial plan for suggested cropping plan, conducting farm production trials for watermelons, cantaloupes, honeydews, and tomatoes employing high bed technic, proper fertilization, proper pest control, proper irrigation technic, and selection of fruit for harvesting. Samples of cantaloupes grown on the farm were sent to Dubai market for evaluation. Results--500 ton order for March delivery.

### **December 1991 :**

Heavy rains from December 11 through December 19 eliminated the cantaloupes and honeydew trials. These plants had fruit set and were approximately 18 days from harvest. The small commercial trial planted by the farmer survived the rains. These plants were about 19 days of age at the time of the heavy rains. The tomato variety "dwarf hybrid" from India survived the rains. Each plant has from 12 to 18 fruits set.

The calypso variety folded under the water stress. The owner has lost most of his onions. We advised heavy spraying but the owner did not follow the advice. A small plot of onions next to the tomato trials was sprayed each time the tomatoes were sprayed. This planting survived. Chili plantings went under water. They may survive. The owner has spent a lot of time in Colombo during this month trying to secure a loan. He has only been able to get a small loan for onion production. The banks do not have any interest to loan money to this man for melons or sweet corn.

### **January 1992 :**

A small trial planting of watermelons made by the farmer have survived the rains and have some fruits about the two kilo range. About mid-month a commercial planting of onions was begun. A loan was secured for only onion production. He would like to plant other melons and sweet corn. However, due to the lack of a sure sales contract and the absence of financing, the owner will wait to participate in the program. Still in need of a long term lease. MARD has financed a small potato trial which looks very good.

**February 1992 :**

Still no lease, no financing, and no pack-house contracts to proceed with program on this farm. The commercial planting of onions looks very good in general. Some spots of the field are showing a little disease. We have made recommendations to spray. Farmer likes to play disease problems very dangerously by waiting many times until it is too late to spray. Potatoes were harvested with average results. Some disease damage appeared in the latter growing days prior to harvest.

**March 1992 :**

No additional plantings this month. The onion crop has not made normal progress due to a poor spray program. Farmer has spent a lot of time in the city for other business. Has gone to MARD to inquire about commercialization fund for melon plantings. If contracts for melons become available we will promote this project.

**April 1992 :**

The owner has returned to the farm. His mother has been seriously ill in Colombo and the farmer has been recently married. Presently cleaning the farm and is getting ready to sign a contract to plant melons. Planning to participate under the pack-house program and the commercialization fund. Is also interested in planting some other crops.

**May 1992 :**

Farmer has signed agreement for Comm Fund and a contract to grow three hectares of melons. First planting to begin about June 17, 1992. Has harvested onion sets and selling for replanting.

**June 1992 :**

Land cleared for melon planting. Waiting for the finalization of paper work of the "super commercialization" and the "commercialization funds" and the issue of a bank loan. Will also plant okra for the export program. Time running out for melon planting. Cut-off date for planting is about July 20 due to extending harvest into the heavy rainfall season.

**July 1992 :**

Received small bank loan to purchase melon seed and fertilizer for the planting. Planting made on July 17 and 18. Extent one hectare. Spent about five hours with this man on July 21 and 22 demonstrating proper irrigation and just how to check soil moisture level. Apparently, irrigation was stopped when I departed the farm. Upon return to the farm the following week there was only about a 30% germination. In addition rats ate a large part of the seed. Farmer was not present at the time of my last visit. Rather difficult to help this individual. Commercialization fund extension service very weak.

**August 1992 :**

The melon planting has been fixed by making a replanting of cellular produced seedlings. He has made a trial planting of long bean, chinese spinach, and bitter gourd for the Exotica people from france. The first chinese spinach was harvested. A trail on refrigeration of the product is in progress. The spinach grew very well and quite rapidly. Will wait for buyers reaction. This man is going to participate with the FAS project to grow peppers for their export project. The drainage systems installed on a portion of the farm by the MARD project are working very well.

**September 1992 :**

The commercial melon planting on this farm has not fared too well. The Tess company has refused to purchase any melon weighing less than 900 grams. Any melon weighing less than 900 grams sold through the pack-house has a value of 2 rupees per kilo. A new twist in the contract. As of the end of the month, the grower has only been able to sell 15,000 rupees of melons through the pack-house. It appears as if the extension service has not supplied the necessary technical assistance. The chinese vegetables are only growing partially because the farmer has not given the crops the necessary attention. The Kan-Kun and the bitter gourd will grow very well if sprayed and fertilized properly. Future program for cropping schedule undecided.

**October 1992 :**

The cantaloupe harvest has been completed this month. The yield has been quite low. It is believed that planting costs were recouped. However, The farmer has not finalized his records. Has had a problem with insufficient labor. Still no plans for additional plantings at the present time. Still in shock from melon experience.

**November 1992 :**

Still no plans for immediate plantings. Has a lot of complaints about the past melon crop. Has recouped investment cost but very little profit. A great lesson has been learned by this farmer. The KAN-KUN planting continues to grow very well. The long beans and the bitter gourd plantings have given up the ghost due to a lack of attention. Has started a seed bed of chinese chili. The seed has been supplied by Mr. Yu.

**December 1992 :**

The chinese chili seedlings have been transplanted. They are progressing very well. The farmer has complained that he has not been paid for the melons entered through the pack-house. It seems as if MARD says that the responsibility for the payment belongs to TESS. TESS says the responsibility for the payment belongs to MARD. Meanwhile, the bank wants the loan repaid because the melons have been sold. Still no effort on the part of the farmer to make a move for new plantings. Likewise, he has no plan.

## SYSTEM B - NASPA FARM

### **January 1992 :**

This is a new farm that came on stream late December. It is managed by a recent agriculturally trained person. This individual has a very good background and will develop into a good manager with some help. During this month about 2.5 acres of brinjal was planted plus a small planting of melons. Additional plantings of melons will be made in the future. This farm has a very nice mix of all sorts and kinds of vegetables.

### **February 1992 :**

Progress is being made on this farm. The melons are looking rather good. All other plantings are in very good condition. They have had a problem with water. After I asked them to clean the canal, the flow was good. However, now someone has come by and screwed the valve shut on the turn out. The mix of crops has been quite successful with some good harvests. As soon as some additional land can be prepared they will be planting a new planting of melons.

### **March 1992 :**

A lot of things happened on this farm during the past month. Juane canary and honeydew melons were harvested from plantings on this farm and accepted on the export market. Likewise, the Trindevalle gem variety of brinjal from this farm was also accepted on the export market. The experiences on this farm have introduced me to pure Sri Lanka Farming culture. Gherkins have been planted as well as new plantings of brinjal and watermelons. This farm has been plagued with a water shortage due to the block manager screwing the gate shut and neighboring paddy farmers breaking the turn out canal to divert water to their paddy fields.

### **April 1992 :**

After a great entry into the export market, the management fell apart on this farm. Due to absentee management, the harvesting schedule collapsed and the products became loaded with insects. During this month about 5,000 kilos of brinjal were harvested from a planting of about 1.75 acres. Out of this quantity, only 60 kilos were free of worms for export. When one is on the farm, they promise the moon and as soon as one leaves, they erase everything that was said out of their minds and fall into the same old rut. The serious part of the deal consisted of firm orders having to be canceled. This is bad business when one is trying to open new markets. The watermelons are progressing very well. The first acre of gherkins has picked about 1500 kilos this month. No idea of the grade of gherkins. Seed beds lost due to a lack of water.

This farm has applied for a Comm Fund loan and has also requested a contract with the TESS company to grow two acres of melons for planting in the month of May. With this contract in hand, they will be able to get a bank loan for the melons.

**May 1992 :**

CommFund participation denied by RPM until land rental payments are current. Farmer preparing to pay back rental at the Welikanda office. Now has about seven acres of eggplant transplanted, harvest of one acre of gherkin in final portion of cycle, harvesting 1/4 acre of watermelons, preparing tomato seed beds, and preparing land for melon plantings. Still can't get organized to get on the regular harvest schedule of a two day cycle to get back into the export market with the eggplant. Have suggested that investors take turns and keep one person on the farm at all times to assist and support the capable farm manager.

**June 1992 :**

Has paid back rental fees due to the Mahaweli. Gherkin harvested ended with a four ton yield per acre. Has harvested watermelons, continue to sell brinjal on the local market, has butternut squash coming into harvest, has made new planting of watermelons, has transplanted tomatoes. New brinjal plantings progressing very well. Heavy winds in the area during the past month have caused a lot of wind scare damage on the brinjal fruit. Going through extensive paper work to participate in the CommFund for two to three hectares of melons for export. Likewise, trying to get a bank loan for the melon plantings. Will also plant okra for export if paper work can be completed to get loans. Facing cut-off date for melon plantings. Approvals very essential if melon program can be followed. Farm has a great potential to become a good operation with an expanded program.

**July 1992 :**

Mr. Norton Fernando has secured a bank loan for the planting of one hectare of melons. The planting was made on July 7 and 8. Wants to plant Juane Canary melons. Progress of cantaloupes is quite normal in spite of heavy winds in the area. Mr. Fernando has joined the Tess Company as a consultant. Do not know if the on site manager will get proper support for adequately cropping, has pruned brinjal for regrowth crop. Not in favor of this move. Prefer new planting. Will plant peppers for FAS. Mr. Fernando denied commercialization fund grant due to inadequate power of attorney from the dentist who is the proprietor of the farm. Time will tell the results of the past months actions taken by Mr. Fernando.

**August 1992 :**

The cantaloupe planting is growing very well. The high winds are causing some foliage damage. He has not been able to secure seed to plant the Juane Canari melons. He wants to plant sweet corn but no seed is available. Has started seed beds for new brinjal planting. Does not have sufficient water beds for new brinjal planting. Does not have sufficient water to plant the entire farm to crops. Just can't get enough water through the turn out opening. Still willing to plant the peppers for FAS as soon as the seed arrives. Has transplanted tomatoes. Expects to plant ten acres of corn during the wet season. Labor is a problem at this time for this farm. The workers went to harvest paddy.

**September 1992 :**

The cantaloupe harvest has finished with a yield lower than expected. Do not have the actual figures. The planting suffered a severe attack of leaf minor during the last two weeks prior to maturity. There have been some problems with the marketing and the grading at the pack-house. Do not have the details as of this writing. The extension service has not functioned too well on this farm. Preparing land for the maize and brinjal plantings. Owner and operators attended the farm plan work shop. Farm plan in preparation. Farm labor still has not returned to the farm from the paddy harvest.

**October 1992 :**

The sales of cantaloupes to the pack-house amounted to about 130,000 rupees. To date the bill has not been paid. The bank wants the loan repaid because the product has been sold. Five acres of maize have been planted. No additional efforts to make any new plantings have been made because there is only one worker appearing for work. People still in the paddy fields.

**November 1992 :**

Still no settlement for the past cantaloupe sales. The bank has talked to me several times about the loan. Requested that the bank inquire with Mr. Martin West of the MARD Project. It was Mr. West who made the contractual arrangements with the TESS Company and the grower. Still no labor to begin a formal field planting program. Some small seed beds of lettuce and tomatoes have been started by the manager.

**December 1992 :**

Settlement has finally been made for the cantaloupes. Labor began returning to the farm about mid month. The first quarter acre of cantaloupes was planted December 27, 1992. The management has contracted ten hectares of baby corn with CIC. The corn will be planted one hectare at a time on a three week schedule. They will alternate baby corn with melons. One hectare of melons will be planted about mid January as scheduled by MARD.

## SYSTEM B - AGROLAC FARM

### **November 1991 :**

Farm survey, designed farm layout, walked farm to study drainage layout, designed cropping program with a cash flow estimate, conducted trials of honeyducs, (seeds were eaten four times by wild animals) conducted fertilizer trial with a local variety of tomatoes, Results negative due to poor variety, Advised procedures for a butternut squash planting, advised technic for banana planting, fertilization, pest control, and pruning of plants. All plantings have been destroyed either by elephants, wild boar, peacocks, monkeys, and other wild creatures. Owner has not visited the farm since early July.

### **December 1991 :**

No activities this month. The owners still have not made an appearance on the farm this month. The elephants continue to feast on each new banana plant as it breaks out of the ground.

### **January 1992 :**

No activity this month. The owners are still no shows on the farm. The workers still have not been paid for past work. It is recommended that this farm be removed from the present owners and given to some one who will work the land.

### **February 1992 :**

Everything continues as in January. No activity. Recommend taking this farm from the owner due to mistreatment of employees.

### **March 1992 :**

Status-quo. No activity. Owners still no shows on the farm.

### **April 1992 :**

Wild elephants and wild pigs have turned this farm into a dance hall. the banana planting has been completely destroyed and the farm is now becoming overgrown with jungle. Owners still no shows on the property. The manager has requested assistance to secure a parcel of land to grow paddy in order to maintain his family.

**May 1992 :**

Status-quo. No activity. Owners no shows on the farm.

**June 1992 :**

Status-quo. No activity. Owners no show on the farm.

**July 1992 :**

Take the farm. No interest by the owners. No shows and no activity.

**August 1992 :**

Take the farm. No activity.

**September 1992 :**

Have been told that farm has been with drawn from owners. No written confirmation as to action taken.

**October 1992 :**

No word on action to with draw farm.

**November 1992 :**

Mr. Jayasinghe has told me that the farm with drawl has been finalized. Therefore, closed issue. Last report-insufficient information to continue.

## SYSTEM B - WIJESOORIYA FARM

### **November 1991 :**

Farm has taken shape since August, have made demonstration trials to train workers in high bed formation technic, seedling production methods, pest control systems, transplant methods, direct seeded methods, and drainage systems, crops under cultivation are tomatoes, chilies, cantaloupes, honeydews, brinjal, okra, sweet corn, and bananas. Presently designing farm plan for commercial scale plantings. Very good management team on the farm, new tractor has been purchased, progress will be made as organization continues to take shape.

### **December 1991 :**

Farm is continuing to progress. Honeydew melons lost with gummy stem rot during the heavy rains. The cantaloupes are still on board. The tomatoes also survived the rains. The most advanced plants have 8 to 10 fruits set. Management continues to follow TA advice. Trials of sweet corn, potatoes, watermelons, and canary melons were planted. This group is joining together with two other farms to establish an export program of 2,000 kgs. of brinjal and 2,000 kgs. of okra per week beginning in March. They are presently clearing land for one acre of melons. Three major planning sessions have been held with management to establish the program for the coming months. Chili planting has survived the rains. Due to the high beds the water was able to drain very well.

### **January 1992 :**

Excellent progress continues on this farm. Approximately one acre of commercial melons were planted on this farm during the past month. Potatoes, sweet corn, and watermelon trials continue to look very good. The tomato trials that survived the heavy December rains are harvesting with some good quality fruit. Yields were reduced due to the drowning of many blossoms. Some plants also died due to the excess water. A small trial of cellular tomato plants produced in System H and transplanted on this farm have reached first blossom clusters in 42 days from seed. To date no bacterial wilt is evident on these plantings. Farm owners have been extremely cooperative and have provided the inputs as requested. Farm owners would like to proceed at a more rapid pace. However, they understand that I will only proceed at a comfortable rate as technology is absorbed by the on farm management. Everyone must understand that this is a drastic change for the on farm workers. We are assisting the farm manager with a big onion planting. We have been very strict with a rigid spray schedule for the seed beds. To date they are a picture and as clean as a whistle. Tomato plantings will start in February.

**February 1992 :**

The commercial planting of melons continues to progress with a slight infection of gummy stem blight. This problem is in check by using frequent sprays of Benelate. Harvesting will occur during the coming month. Onion plants are being transplanted to the field this month. There may be enough seedlings to transplant two acres. Trying to convince the manager to sell seedlings. He has produced some of the best onion seedlings that I've seen in any area of the Mahaweli. Land preparation is very slow on this farm because most of the workers have walked off of the farm to harvest paddy. There is very little excess labor in this area. Presently, owners are trying to bring in out side labor for the farm work. Watermelon plants now have fruit weighing up to three kilos. These will harvest in about two weeks. Sweet corn was harvested and given to MARD for the Mahaweli Week Exhibition at Welikanda. Tomatoes took second growth and threw a nice harvest of good quality fruit. Planting now terminated. Commercial chilies have thrown two very good harvests of green fruit. Still in very good condition with very little NLD.

**March 1992 :**

Juane canary, Saffron, and Palestro melons harvested from this farm were accepted on the export market as well as the local market. Zucchini squash from this farm also accepted on the export market. Onions looking very good. Chilies are still producing an excellent crop. Cauliflower trial transplanted this month. Potato trials harvested with a good yield of acceptable quality. Watermelon trials finished harvest with a high yield of very good quality fruit. Roma tomato trial progressing quite well. Should harvest next month. Owners trying to pick up a second tract of land to increase program.

**April 1992 :**

Due to results of trial plantings, this farm is waiting to plant two acres of melons, one half acre of butternut squash and the same quantity of calypso tomatoes. The farm is waiting for a bull-dozer to rip the soil before entering into this program, The recent severe heat has taken it's toll on the chili planting transplanted in the month of September. One more harvest will be taken from the planting during the coming month. A tractor has been purchased for use on the land preparation as well as helping local paddy farmers to prepare land. This farm will also begin somewhat of an out grower deal with some neighboring settler paddy farmers. We will give TA to the settlers through the farm manager of this farm. This rock pile of land is now beginning to make progress. With a good piece of and the same effort applied, this group would have a thriving business.

**May 1992 :**

Emphasis this month on planting rented paddy land. Still waiting for bull dozer to rip farm to begin melon plantings. Chili planting made in late September removed this month.

**June 1992 :**

Former employees report that farm has been closed down and the workers have been paid off. No activity with farm growing into weeds. Have been unable to speak to Mr. Perera about the situation.

**July 1992 :**

Spoke to Mr. Perera. Looking for a new manager to start a new planting program. No results to date.

**August 1992 :**

The farm has been reopened. Mr Perera will personally manage it. He has brought in another tractor and has begun to plow the land. About two acres of butternut squash have been planted. He expects to plant tomatoes, sweet corn, and move into melons with a December planting. Glad to see this farm back in operation. Plans to participate in the program with Exotica.

**September 1992 :**

Farm still in reorganization. Waiting for rains to plow the land. The recently planted butternut squash making fair progress. Owner has been putting emphasis on coconut estate until heavy rains arrive.

**October 1992 :**

Chili seed beds have been planted. With the late September rains land has been plowed for future plantings. The butternut planting has finished off rapidly due to the rains and a lack of fertilizer. Don't know how this farm will progress. Management quite inadequate.

**November 1992 :**

Chilies have been transplanted. Have not been able to find any of the management on the farm. Workers have reported that Mr. Perera has departed for Australia. Don't know the future of the operation.

**December 1992 :**

Tractors have disappeared from the farm. Chilies have been transplanted and a few brinjal. Can't find anyone who has any information about the operation. Land plowed in October growing up in weeds.

## SYSTEM B - WIJESKERA FARM

### **November 1991 :**

Big problem is adequate and constant management team on the farm. Have made farm survey, recommended drainage layout, studied farm production history, made demonstrations to use two wheel tractor to form high beds for wet weather cultivation, advised on proper use of pesticides, made demonstrations of direct seeding of vegetables, advised on harvesting of okra and marketing of same, arranged seedling procurement of "solo" papaya plants, made demonstration of transplanting papaya seedlings, supervised transplanting, spraying, fertilization, and maintenance of papaya, designed cropping plan and cash flow for the same plan. Made demonstrations of proper irrigation technic. Very few of the technic demonstrated have been followed due to irresponsible management.

### **December 1991 :**

Poor management continues to be detriment to progress on this farm. Wild boar and deer destroyed the "solo" papaya plantation the night of December 5. The farm went under water December 17 with the 8" of rain that fell. Two main drains from settler villages pass directly through this farm. It appears as if the brinjal will survive this waterlogging. New land being prepared for cabbage is being walled as one would do for paddy. -lagoon str. ie irrigation. About ready to drop this operation from regular visits.

### **January 1992 :**

MARD has cut a deal with this farm to produce cabbage plants for transfer to farmers who will grow for pack-house contracts. Unfortunately, farm management nor MARD officials had the common courtesy to advise us of the agreements. The facts were revealed during the recent farm tour. Presently, TA to this farm has been put in limbo until they make up their minds as to what they would like to do.

If they desire to play ball with MARD and the DA by using the "bun" type of cultivation practices, I will put my time with other farmers who desire changes.

### **February 1992 :**

Status quo as of January. MARD did not give these people any cabbage plants for a commercial planting as was promised for growing the seed beds. After the plants were over the hill MARD rep wanted this farm to make a planting. This offer was refused. If Finances improve, they may want to get back on track. The brinjal planting has started with a light harvest. Additional seed beds of brinjal have been made.

**March 1992 :**

Brinjal plantings have been increased this month. Some good harvests are now being made from the December and January plantings. All product being sold on the local market. A few lime trees have been transplanted. This farm will slowly come around for an export program.

**April 1992 :**

About five acres of brinjal are harvesting. Another five acres has been transplanted and will slowly come into harvest beginning next month. Presently harvesting 2,000 kilos per week. All for the local market in Colombo. Considering possible planting of okra for export.

**May 1992 :**

Maintaining status-quo with brinjal harvest and plantings. Still considering other export crops. Has transplanted a few more lime trees.

**June 1992 :**

Continues to harvest and sell about 2,000 kilos of brinjal per week. Depending on the market prices, This farm is beginning to build a weekly cash flow of 12,000 to 20,000 rupees per week. In view of this fact, an additional five acres of land has been cleared to expand brinjal plantings and chilies are presently being transplanted. Looks good for a sound operation.

**July 1992 :**

On July 9, The manager reported that weekly brinjal harvests had risen to 4,000 kilos per week. the sale price was riding between 6 and 8 rupees per kilo. Traders were beginning to come to the farm to buy the product. He also reported that due to the positive cash flow over the past months that all bank loans had been cleared. The farm also has two tractors (two-wheelers), two motorized sprayers and two motorized weed cutters which are free of debt. Additional land is being cleared and planted. Late July, the weekly yields had dropped to 800 kilos per week. The excessive winds during the past two months burned the plants at the apical plant reproduction point. Therefore the new flowering for fruit production was drastically reduced resulting in the sudden nose dive of production. Only time will tell the results. It may take two months to get the cash back in line for this operation.

**August 1992 :**

Yields of brinjal are coming back from the severe wind damage. The quantity moves from two to three thousand kilos per week. Should begin to harvest the first green chilies in about two weeks. There have been five acres planted. While the density of the plants is too low the fruit quality should be rather good. About twenty five acres of the farm is now under cultivation. Additional land preparation is under way to plant another ten acres of brinjal. Suffering from a great labor shortage at the present time.

**September 1992 :**

Farmer has brought in outside labor to get the farm back in motion. Seed beds are being planted for a 12 acre planting of chilies a 15 acre planting of brinjal. Yields of brinjal are now back to the 2,500 kilo level per week. Entire farm should be planted to crops by early January 1993. Participating in the farm plan program. Has not had time to complete necessary preliminary information for the farm plan due to the lack of labor which forced the owners to do the harvesting and the irrigation of the plantings.

**October 1992 :**

Five acres of chilies have been transplanted. Something beginning to happen with the management of this farm. Not giving the planting the attention given several months ago. Additional lime plants have been transplanted. Seed beds for new plantings of brinjal have not been started.

**November 1992 :**

Difficult to find management on this farm. Progress of the plantings seems to be at a stand still. Chili seedlings have all been transplanted. A lot of the land formerly plowed is beginning to grow into weeds. Seed beds for brinjal have not been planted. Cash flow has been seriously decreased because the old brinjal plantings are dying from diseases that have occurred with the rains and a lack of fungicide sprays.

**December 1992 :**

All brinjal plantings have been lost due to a lack of fungicide sprays during the heavy rains of this month. Likewise, the chilies are not in good shape due to the lack of fertilizer and proper sprays. New seed beds of brinjal have not been started. Have not been able to speak to the Colombo management during the past two months. Something strange has taken place. It is suspected that management has lost interest or there has been a serious money problem. Weeds are growing wild in the lime plantings. Labor that was imported seems to have disappeared. The shacks for the workers are empty.

**SYSTEM B - KAPILA ENTERPRISES**

**March 1992 :**

New project in the organizational phase. The owners of this farm have decided to make a planting of permanent crops. The first phase consists of planting 20 acres of citrus crops. Phase one of a developmental plan has been drawn up and submitted to the client.

**April 1992 :**

Met client this month in Colombo. Will meet client on the farm in early May to finalize the plan of execution for preceding with the first twenty acres of citrus. Client has identified varieties and acreage of each variety.

**May 1992 :**

Met owners on May 5 to make final plans for the tree crops planting. As soon as survey and level plans are available work will begin. Gave client information to make a plan to apply for a commercialization fund grant. Plants have been ordered from the MARD nursery.

**June 1992 :**

Plans are moving along for the planting of about thirty acres of citrus, bananas, and mangoes employing a drip irrigation system. Client is in the final stages of proposal preparation to qualify for CommFund assistance under the MARD project. This proposal is to be submitted by about July 10, 1992. Tentative planting dates are set for mid to late September 1992.

**July 1992 :**

Farm plan and project plan presented to MARD on July 30 for commercialization fund to get assistance for reduced program to plant 15 acres of fruits under drip irrigation. project valued at about 900,000 rupees. Owners are reluctant to go above the investment amount not covered by the CommFund. Not to happy with this decision. Hope to begin planting in September.

**August 1992 :**

Farmer still waiting for action on the commercialization fund. Does not want to begin without the grant. Has begun the harvest of green gram from the small planting. The one acre of oranges is growing very well where the moisture is adequate.

**September 1992 :**

Commercialization fund grant has been rejected at the August PRC meeting. Don't know what the farmer will do as to the actual planting of the citrus, mangoes and bananas. No news from the client.

**October 1992 :**

No activity since the commercialization fund has been rejected. Have not been able to speak to the owners. Have not advised MARD about the trees reserved from the nursery.

**November 1992 :**

Status - quo as of October. Manager says the owners are saying that MARD will not issue the trees to plant the farm.

**December 1992 :**

No further action from the owners to make an effort to plant part of the trees ordered from the nursery farm.

**SYSTEM B - ERIYAGAMA HOLDINGS**

**March 1992 :**

Negotiations under way to establish a large scale production operation. Several products under consideration. Formal decision should be made in late April as to the crops and the acreage of each.

**April 1992 :**

Client still studying options and crop identification. Have been told to expect decisions by first week in May.

**May 1992 :**

Owner has decided not to grow a large pickle acreage for FAS. He has been soured with the gherkin deal over past dealings with Sunfrost. Possible that FAS may rent the farm and plant the cukes with their own people.

**June 1992 :**

Deal with FAS to grow gherkins has folded. Too many problems to get the farm in good workable order. Owners have quite a large debt on land rental fees.

**July 1992 :**

Owners are not working the farm. Have a token acreage of 6 to 8 acres of mixed crops. Not paying land rental fees and seem to have very little interest in the property. Have still not been able to speak to one of the owners at the time of my farm visits.

**August 1992 :**

No increased activity from the previous month. The inactivity is a serious problem with this farm. It is suggested that this farm be taken back and reissued to the CTC company. It is just growing back to jungle.

**September 1992 :**

Status-quo from the previous month. No contact with the owners.

**October 1992 :**

No additional action. Owner has expressed a desire to give up some of the land. Discussions under way to give a portion of the land to CIC.

**November 1992 :**

Have been told that final arrangements are being made to give two of these farms to CIC for the baby corn project.

**December 1992 :**

Have been told second handed that farms # 25 and 27 have been allotted to CIC for baby corn. Land preparation has begun so I guess that it is a deal.

## SYSTEM B - JAYARATNE FARM

### **November 1991 :**

Made farm survey, studied and recommended drainage layout, set up layout of farm and cropping procedure to be followed in the various areas, advised on mechanical land preparation, designed farm plan with a tentative cash flow program, reviewed past profit and loss performance of the farm, conducting demonstration tomato trials to study varieties, high bed formation demo, irrigation technic, fertilization methods, and pest control. Technology has been employed in the recently transplanted chili crop. Technology demonstrations being employed for wet weather gherkin planting now under way, plans finalized for commercial plantings of sweet corn, tomatoes, melons, and brinjal. Management is very cooperative and has the desire to follow cropping plans and will follow recommendations.

### **December 1991 :**

Commercial program has been set back due to a lack of financing. Additional land has been plowed and the first phases of land preparation has begun. Chili planting has survived the heavy rains. The high beds practice has worked very well. Expected to begin cuke planting as soon as the land is dry. The area set aside for Maha cultivation is draining very well. The tomato trials were a success. The roma variety set 102 to 112 fruits per plant. The calypso variety folded with verticillium and stemphyllium after setting up to 28 fruits per plant. The roma fruit were not harvested because the workers closed the drain ditch and this caused the field to flood. Thus the fruit about one week away from harvesting went under water and rotted. However, this variety had resistance to the diseases that destroyed the calypso variety. The low lying parts of this farm are a swamp because of no proper peripheral drain.

### **January 1992 :**

Approximately one acre of cukes have been planted under contract for Sunfrost. To date the planting is progressing very well. There should be a first harvest in about 10 days. All plantings have been staked with the exception of the small area set aside for on the ground trials. Additional land is being prepared for the next plantings. Until this client is able to get a loan progress will be slow. In spite of this constraint, progress is being made.

The commercial planting of chillies continues to make good growth with an average set. Here again, a lack of funds for a good fertilizer application program could hinder yields. The high bed technic combined with the trickle-constant flow irrigation is working well. The owner and farm management are cooperating very well and they do follow instructions.

Many outsiders and Mahaweli people are downing the systems employed on this farm. To date, things are going correctly and we don't give a care as to what is being said or as to what others think.

#### **February 1992 :**

The on the ground trial of cukes has harvested 1918 kilos to the acre during a nineteen day harvesting period of this month. The condition of the planting is still very good and will throw a respectable yield. Due to these results, I'm recommending more plantings on the ground. I would not waste the money for the stakes and cord. Sunfrost is not happy with this idea because they make money selling the string. Sunfrost has made three price changes this month for the price of cukes. They say the reasoning is to get more small pickles due to increased orders for the smaller sizes. Don't quite accept this type of management. This farm is participating in the pack-house program to produce cabbage for export. Plantings began this month. Chili planting continues to make good progress. Few worms appearing on the red chillies. Have recommended that they pick green chillies. The present good price for greens warrants the harvest. Still no lease and no loan. Farm plan execution thrown out of whack due to the announcement by Sunfrost to not allow any more gherkin plantings until May. This will interrupt the cash flow program for this farm.

#### **March 1992 :**

Water cut offs without any prior notice completely upset the irrigation cycle on this farm. The gherkin planting went under drought stress and never really recovered. Thus the productive cycle was reduced and disease built up very rapidly. The cabbage planting has had some set backs due to poor quality seedlings supplied by MARD and the water cut offs after the transplant problem was corrected. Since cabbage is a much more hardy plant than the gherkin plant, we believe the cabbage has a chance to make a crop.

The chillies are still in good condition despite the interruption in the water. He expects to follow the gherkin planting with an okra planting for the pack-house program.

Sunfrost will not give this farm a gherkin contract until May.

**April 1992 :**

Farmer has applied for a commercialization fund grant under the Mard project to plant one hectare of okra. A contract has been signed with the TESS company to market the product. The paper work has been completed and forwarded to the Seylan Bank. He has also applied for a grant to purchase a two wheel tractor and the accessories plus a power sprayer. Gherkin crop resulted in a loss due to stubbing off of the crop when the plants went under water stress. Replant of cabbage did not survive due to over grown seedlings. The heat was too much for the large seedlings. Land has been plowed and the beds are being formed for the okra planting. A fire on the farm went through the bananas and destroyed a lot of the fruit and plants. Chili planting may not survive the stress caused by the water cut offs.

**May 1992 :**

Waiting for the okra seed to arrive at the MARD project to begin planting of okra. Has transplanted about 3/4 acre of chilies and about 1/4 acre of Juane Canary melons. Working on finalization of bank loan and commfund. Will follow a regular planting schedule cycle as soon as the first okra planting can be completed.

**June 1992 :**

Has planted land set aside for okra to Gherkins under contract to Sunfrost. Will prepare more land to plant okra as soon as authorization is received for a bank loan and participation in the Comm Funds under the MARD project. The seed issued for the jaune canary melons turned out to be honey dew seed. The plants set a nice quantity of fruit but rats damaged about 90% of the fruits before they could mature. The rest of the plants were eaten by deer. Suffering the same problem as other farmers who are trying to participate in the export program.

**July 1992 :**

Harvesting gherkins with a normal yield to date. Sunfrost is holding back on grades. First 15 days of delivery grades still not returned to the farm. Okra for export germinating as planting continues. Has received a small loan for the okra project. Commercialization fund grants and requests made into a complete mess by improper advise by those involved in the management of the requests. Has the only legally registered farm layout plan in the mahaweli systems. Waiting for four wheel drive tractor to plow additional land for new plantings.

**August 1992 :**

Pickle planting harvest is terminating. It appears that he has been taken again by the Sunfrost people. The first harvest of okra has begun. The planting looks rather good and the quality of the product is excellent. An additional two hectares of land has been plowed for additional plantings of okra. Presently there is about one hectare of okra planted for the pack house program. He has seed for the next two hectares of okra. We are going to try to move this farm into a large okra program.

**September 1992 :**

Money was lost on the last pickle planting. The grade sheets really are not a true picture of the crop that was produced. We also have reason that some of the crop may have been skimmed off and sold by the workers. The okra is producing some very high quality product. They have quit selling to the pack-house because of the low price for the 2.5 to 3.0 inch size of product. Income from the pack-house sales was ranging from 30 to 40 rupees per day. Now by harvesting 5 inch pods and selling them elsewhere, income has risen to about 200 rupees per day. The brinjal planting has begun to harvest and is producing about 600 rupees per week from the initial harvests. A small planting of maize has been planted and land is in preparation for a larger planting of okra. The son and the father have renewed friendship and the son has returned to live on the farm. Mr. Jayaratne attended the farm plan workshop held this month.

**October 1992 :**

The small okra planting continues to produce a good yield. There have been some new conversations with TESS about a future okra planting. The Mahaweli still has not returned to complete the land preparation begun several months ago. Seed beds of chilies have been planted. The two wheel tractor purchased by the owner has been put to work. He has finally received the accessories bought under a commercialization fund grant.

**November 1992 :**

The small brinjal planting has been pruned for a second growth of foliage. A top dress of fertilizer has been applied. The okra planting has terminated harvesting. The yield was quite good. The small planting of maize has come into tassel. With the two wheel tractor in operation, they are able to begin to prepare small patches of land for small plantings.

**December 1992 :**

The Mahaweli has finally returned to complete the plowing operation which was started in August of this year. Maize has begun to harvest. A small planting of okra, butternut, and some home garden crops have been planted.

## **SYSTEM B - KUMARA FARM**

### **November 1991 :**

Have made survey of the farm for soil types, drainage, and general layout, have surveyed past performance records, discussed new cropping program, designed farm plan and tentative cash flow, conducted fertilizer trial on commercial planting of chilies,(results negative due to poor condition of commercial planting) proposing and finalization of plans to begin melon and sweet corn plantings. Owner is a very fine individual but due to past negative results is slow to make changes and move rapidly in a new direction. Lives on the farm and has hands on management.

### **December 1991 :**

Client inactive due to the excessive rains. He will make a trial run of melons as soon as he can prepare land. Owner is a very good person but is proceeding with caution after past experiences. Will respond but can not be pushed.

### **January 1992 :**

Early January rains have kept this farm quite marshy. Owner has bought a large two wheeler for land preparation. We expect to be able to get melons planted the early part of February and follow up with onion plantings. Certain areas have been planted to bananas. This farm has a very serious drainage problem. We check this matter every week.

### **February 1992 :**

Can't get on stream with this farm for first plantings. Every time my schedule is open for time on this farm the owner is not on the farm or his equipment is out of working order for soil preparation. Eventually it will all come together.

### **March 1992 :**

Onion plantings were made this month. Melon plantings will be made in late April if pack-house progress is on schedule.

Drainage problem is being studied by D/COP MDS project.

**April 1992 :**

Land preparation under way for the first small planting of melons. Not pushing to hard yet due to slow progress of pack-house construction. Onions growing rather well.

**May 1992 :**

Status-quo from last month. Have not been able to catch farmer on the property while I'm in the system.

**June 1992 :**

Has started a small program of brinjal, tomatoes, chilies, and a type of yam. Have not further promoted melons due to the present hold-up that other farmers are experiencing.

**July 1992 :**

Has planted quarter acre of watermelons, has begun to transplant brinjal and chilies, and is planting a variety of yam. Not living on the farm because high winds have destroyed the house built around a sea-tainer.

**August 1992 :**

Is presently negotiate a deal wit CIC to make a joint venture operation for the production of baby corn. Ha begun to rip the farm in preparation for the plantings. Will participate in the program of FAS for the pepper program. Butternut squash and the watermelons are now in harvest.

**September 1992 :**

The farmer and his wife attended the farm plan workshop held this past month. A formally trained agriculture man has been hired for a farm manager. The person is living on the farm. They are in the process of planting one hectare of maize, six acres of brinjal, five acres of chilies and will plant one hectare of pickles for FAS as well as one hectare of peppers. Still trying to get a contract with CIC for baby corn production and chilies.

**October 1992 :**

Plantings have been slower than anticipated due to a labor shortage. The maize has had the side dressing of urea applied. One hectare of chilies have been planted. Seed beds for brinjal have not been planted. Some additional bananas have been planted. Still can not get a contract from CIC for baby corn.

**November 1992 :**

Preparing some additional lands for new plantings. Still does not have enough labor to proceed with proposed plan. New farm manager seems to be a capable person. Maize growing rather well.

**December 1992 :**

Has planted one half acre of ground nuts. Germination has been very good. Will let maize dry to sell grain product. Still no additional plantings made.

## SYSTEM B - JAYASEKERA FARM

### **November 1991 :**

Has begun to work farm in earnest since May, have surveyed land for drainage, land types, and studied cropping procedures, have made pesticide and fertilization recommendations for okra and brinjal, diversifying into other crops, designing plan to plant sweet corn, melons, and possible watermelons. Has good management and very good workers on the farm. Has recently purchase a motorized sprayer.

### **December 1991 :**

Has joined the Wijesooria group for the okra and brinjal export program. He has also expressed a desire to plant other crops. Due to other business commitments, he has been spending less time on the farm this month. However, after Jan 6, he will be devoting more time on the farm. Good man who knows how to work. Has joined the group meetings to plan export program.

### **January 1992 :**

A large area of this farm has been prepared to plant brinjal and okra. He has also agreed to make a melon trial as soon as the land can be prepared. Has transplanted chilies. Okra and brinjal export program still not defined due to lack of communications with the buyer.

### **February 1992 :**

A labor shortage caused by an on farm illness and then a departure of the local faction to the paddy fields has hampered progress during this month. Hope to plant the melons during the coming month. Can't load this farm up with additional work due to the labor problem.

### **March 1992 :**

A labor shortage and lack of water have delayed any new plantings on this farm. This farmer is fighting to keep a small planting of chilies alive due to next to no water. The unit manager explains the water problem as very difficult until the paddy water is released. It is senseless to try to begin any new plantings until the water is certain.

**April 1992 :**

With full water since April 15, this farm will enter into a program of chilies and brinjal. They will also plant some small plantings of melons. This farm may have lost about one half of a very nice chili planting when the water was cut off. It will take some time to see if the plants recover. Farmer is somewhat disgusted about the water problem. Studying the pack-house proposal for possibly planting some other crops.

**May 1992 :**

Proceeding with land preparations for new plantings. Still says he is going to go with brinjal and okra. Chili plantings have suffered a yield reduction due to the lack of water in March and April.

**June 1992 :**

A labor problem has slowed the program on this farm. Don't have details related to this incident. Expect to eventually be able to speak to owner.

**July 1992 :**

A new manager is on the farm and has begun seed beds of brinjal. Have not been able to talk to owner about program.

**August 1992 :**

Spoke to the owner this month. He has begun preparation to plant a large acreage of brinjal. Also planning to plant chillies. Will participate in the program of vegetables for the Exotica Company. Has begun to plant spinach and the special pumpkins.

**September 1992 :**

Has about six acres of brinjal planted during the past month. In the process of planting about six acres of chilies. Planning to plant okra and some other chinese vegetables. Has brought in labor from the outside. Farm is moving.

**October 1992 :**

Wrote a program to spray brinjal since the rains have been rather heavy in this area. Recommended a five day schedule of fungicides for the problems beginning to appear on the brinjal. Chilies are growing rather well but also needs a good spray schedule. Tess wants to buy brinjal for export. Selling about 700 kilos of brinjal per week.

**November 1992 :**

Farmer has failed to spray the brinjal for the disease problems. Will probably loose most of the planting if December rains are heavy. Chilies looking good in spite of the fact that the planting has not been sprayed. Still selling about 600 kilos of brinjal per week. Continuing to plant more brinjal. Is negotiating contract with TESS for okra to export. TESS also wants brinjal but to date the farmer and TESS have not come to an agreement.

**December 1992 :**

The most of the six acres of brinjal has been lost during the heavy rainfall period of this month. The spraying advice was not followed. The chilies have also suffered a set back because of a lack of sprays. Is planting additional acreage of brinjal. Farmer reports that an agreement has been reached with TESS for okra and brinjal. He is now awaiting the seed.

## **SYSTEM B - LANKAGE FARM**

### **November 1991 :**

New farm just opened in August, presently planting corn, beans, and chilies. Have advised on technology and varieties for proposed planting of bananas. Advised and supervised the staking and digging of the holes to plant the first acre of bananas, surveyed the farm for drainage layout and irrigation layout. Good hands on management by owner and the owner's mother.

### **December 1991 :**

Chili, corn, and bean plantings look very good. Had serious problem with excess water from the rains. However, they quickly opened some drains and the crops survived. This farm has a serious drainage problem as they expand the cultivated area. Bananas planted during the early part of the month are beginning to germinate. Water may have rotted the seed in the lower part of the banana planting. Wild elephants have destroyed a portion of the corn and bean planting.

### **January 1992 :**

These people have had a management problem. A local man who was hired as a supervisor has run off with the corn, green chilies, and a lot of the beans. Drainage ditches have been opened in the low lying areas. Bananas are germinating very well. Presently, opening drains and watering ditches through the bananas. Additional land clearing is expected to begin in March.

### **February 1992 :**

These people keep plugging along. The bananas are growing very well. Management continues to be a problem. The chili planting is in very good condition. Additional small plantings of onions and cabbage have been made. They look good.

### **March 1992 :**

These people were told there wasn't any water available for this farm. The chili planting on high ground is going by the board. This was one of the best chili plantings in the area. The bananas on the lower land where the water table is rather high is growing very well. However, the higher ground does not have enough moisture for adequate growth of the plants. While the plants have not died, the severe heat is just keeping the plants from making normal growth.

**April 1992 :**

With a few rains plus some water for irrigation, the bananas are beginning to come to life. Flowering will be retarded to the severe stress that the plants suffered during the past severe heat. The chilies are to far gone and the water will not bring the plants back. Wild elephants continue to tramp through this farm rather frequently.

**May 1992 :**

A large herd of wild elephants have stumped through this farm five nights in a row. Fortunately, they did not stop to eat. Little damage has occurred. The rains have been a blessing for the bananas. They are beginning to make some good growth. Weeding of the bananas is to begin in the near future. They continue with the home garden plots of mixed vegetables.

**June 1992 :**

Additional land clearing is under way to plant an additional acreage of bananas. Cleaning of the present planting is now under way. This farm has had a problem with an adequate supply of water to properly irrigate the present banana planting. We have asked water management officials to look into this matter. A strip of the rocky land running through this farm needs some special attention to raise the fertility. We have made several suggestions to the owners about this matter.

**July 1992 :**

Additional land clearing continues. More managerial problems. Manager wrote a check and cleaned the account while the mother was off the property due to illness. Bananas suffering from high winds and a lack of water. Fertility low on the banana plants.

**August 1992 :**

Progress is slow on this farm due to a lot of old fashion ideas. They probably will eventually succeed but at a turtle pace. Management problems with the people who have been placed as foremen have taken a great toll on the progress. They also don't believe in modern methods of fertilizing. Nature will just have to take it's course. Land clearing continues as well as some removal of stumps.

**September 1992 :**

Land clearing continues and some preparation is under way to plant some more bananas since the rains have begun to fall. The several acres of mixed vegetable plantings (home garden) has begun with the rainfall.

**October 1992 :**

Older son has gone to the U. K. to study for one year. Mother continues somewhat of a chena operation. She refuses to use any amount of chemical fertilizer. They continue to clear more land for bananas and continue to plant small home garden plots of different vegetables.

**November 1992 :**

The first bananas planted nearly one year ago still have not made a harvest. This is due to a lack of proper watering and application of fertilizer. They have the idea that new lands do not need fertilizer. I will keep on trying.

**December 1992 :**

Still clearing additional land for more banana plantings. Continues the small scale plantings of mixed vegetables.

## SYSTEM B - SUNFROST FARM

### **November 1991 :**

Since this is an established farm a different approach has been taken with the management of this operation. Have been following the entire gherkin program checking on the performance of the out grower program, brining operation, marketing of the finished product, reviewing progress on the diversification research work and making suggestions when the opportunity presents itself. Management is very good and quite receptive to new ideas and suggestions.

### **December 1991 :**

All gherkins purchased during 1991 have been shipped. Presently, waiting for the 1992 planting season to get under way. Conducting large scale variety testing program for cocktail onions. Participating in the essential oil PIP program. Have planted coriander and waiting for ginger seed to be harvested for planting material. The greater portion of the farm is planted in a green manure crop. About ready for plow down. A lot of onion variety trials will have to be re-seeded because trial area went under water during past rains.

### **January 1992 :**

This company is contracting a lot of gherkins for the coming season. They have given me several figures as to the acreage contracted. The amount ranges from 100 to 150 acres. They have opened with a three grade purchasing agreement. They have a new on site manager who is trying too get things organized. There has been a mix up with some of the chemicals that were issued to Jayaratne. When a serious infestation of mites appeared on the cuke planting, they issued two fungicides instead of an insecticide and a fungicide. We had to go to these people to get the matter corrected.

### **February 1992 :**

Pickle harvest is in full swing with practically all contractors harvesting. Presently, conducting a special vinegar brine trial under refrigeration. Have made two price increases this month to encourage more smaller pickles. Small size has increased from initially 15 to now 28 rupees per kilo. Quite confusing to the farmers because they really don't understand what is occurring. Could be a real mess at settlement time. This is a complete turn around from the last growing season when this company encouraged harvesting of large pickles.

**March 1992 :**

The entire contract acreage terminated harvest earlier than anticipated. Technology and extension service seems to be weak. Many farmers seem to be confused with the grading system and the manner in which it is conducted. Some symptoms appearing that signify a possible genetic degeneration of the variety Calypso. Vinegar test of brining under refrigeration producing some good quality finished product.

**April 1992 :**

This company has moved in to the lower end of System C to compete with FAS for gherkin acreage. Don't have details on contract arrangements as of yet. Have seen three different pricing structures for contracts for the cycle that just terminated in system b. The grading system of this company seems to let the company open for a lot of criticism. They receive the pickles in the early evening and then grade them during the night. Grade slips are returned to the farmer on a weekly basis. With this system, it is difficult for a farmer to change his system of picking if the grades are of the wrong size to get the top prices. From observation, some of the technologists seem to be more interested in the accounting procedure and data for inputs issued by the company rather than walking the fields to check the plantings.

**May 1992 :**

Did not visit the operation this month. Have received complaint from FAS that Sunfrost has organized a group buyers to go into the system c area to purchase cukes from the contract growers of FAS.

**June 1992 :**

This group has received an order for several containers of boiler type onions for export. Presently, have started plantings on their property for this product. Discussing a possible out grower program and CommFund help with MARD. They have contracted two hundred acres of gherkins for present growing cycle. They are in the initial stages of harvest. Have been advised that buyers have been commissioned to purchase gherkins from FAS contract growers in lower end of System C. It seems a rather rare business with all of the land and water available in System B.

**July 1992 :**

Trying to get commercialization fund grant to run sliver skin onion project for export order. Should not be even considered. Nearing end of gherkin cycle for this planting. Continue to try to buy pickles from FAS contracts in System C. They have 200 out growers in system for this cycle.

**August 1992 :**

The first harvests of the boiler type onions, for their export order, have begun. The quality looks good. They continue to plant more onions. Gherkin production, for this cycle, is beginning to taper off. They don't have many pickles on hand for a major exporter. variety trials of pickles are in the final stages of harvest on the farm. They don't seem to want to reveal any results.

**September 1992 :**

The final harvests for the pickle cycle has come to an end. Different farmers have advised us that Sunfrost is trying to contract pickles for the present wet season. Have not been able to confirm this with management. Still harvesting boiler onions for the contract. The pickles contracted in the System C area have finished harvesting. During two visits this month, I could not find any management people to get any facts. MARD COP reports that this company has received approval for a commercialization fund grant of one million rupees for development of an out grower program for boiler onions.

**October 1992 :**

The boiler onion harvest has been completed. No information on the yield or other details. Management does not desire to reveal any facts. Packing and shipping pickles from the past harvest. Expect to contract about 150 acres during the next cycle of pickles.

**November 1992 :**

Grading, packing and shipping Gherkins produced during the past growing cycle. No information on plans for the coming season.

**December 1992 :**

No plans revealed for the coming gherkin and onion season. Still shipping product.

**SYSTEM B - AMEEN ENTERPRISES**

**April 1992 :**

New farm on stream this month. Received water on April 24. Jungle has been cut and plantings are under way to plant 15 acres of bananas and 10 acres of mangoes. Assisted to fill in a banana planting that was made on 10 foot squares. Also made demonstration of direct seeding of red beets. The permanent plantings will be inter-planted with vegetables until they close in the spaces. Chilies are presently being planted. The entire farm has been fenced. Management has been a problem. The recent manager stole timber, fire wood, and sold all of the chilies that were produced. A family member is now on the farm to guard against these problems. Farm has very excellent soil.

**May 1992 :**

Holes are being opened for the transplanting of mangoes. Additional bananas are being planted. Cleaning continues for the banana and mango plantings. The layout of the main feeder canal for irrigation has been completed. Canal should be dug during the coming week. Probably will begin planting some items for the export program.

**June 1992 :**

First 250 mango tress have been transplanted on this farm. They are of the Alfonso variety. Additional bananas are being planted as planting material becomes available. They have accepted advice to increase density of banana plants per acre. Have signed a contract to plant one hectare of melons under the Pack-house program. Going through the normal paper work scheme to qualify under this program. Farm working very well to date.

**July 1992 :**

This farm has had more management problems. They had to dispatch the recently hired manager during the past two weeks. The late June transplanting of mangoes resulted in about a 20% loss of the trees. The remaining trees are growing very well. Not in agreement with the irrigation instructions coming out of the System B nursery. They are interested in planting peppers for FAS. They presently planting chili and tomato nurseries. They are making nice progress with the destumping operation for new plantings. They are waiting for more banana plants to continue the expansion of this planting.

**August 1992 :**

Banana development is quite normal. The first fruits are hanging in just seven months from planting. In the process of transplanting one hectare of tomatoes and one hectare of chillies. Seed beds may get overgrown due to a labor shortage to prepare the field beds. About 55% of their work force walked off to harvest paddy. Mangoes growing very well. the transplanting of the missing trees has been delayed because they were told by the people at the nursery farm to wait until the rains arrive. Operation moving very well.

**September 1992 :**

Banana flowering has become profuse with the initial rains in the area. There might be a problem with the water table in the lower areas of the farm. The first holes opened for new plantings of bananas, after just two inches of rain, have a water table at the two foot level. This will be checked out in about two weeks. If the water table continues high, some large drain ditches will have to be opened. The tomatoes have initial symptoms of bacterial wilt. There are also some verticillium and stemphylium symptoms showing on the plants. This farm has lost seed beds of chillies and tomatoes due to the recent labor shortage. The labor force came back to the normal level the last week of the month. The mangoes are growing very well since the rains began falling. Chemical Fertilizer has been applied to the trees. Land clearing and preparation are now back on tract. Several ducks have been added to the farm program. Facilities are being prepared to also add goats.

**October 1992 :**

Bananas are breaking into harvest. The product is all being sold farm gate at a good price. A new manager has come on stream. Once again the former man could not play the game straight. Additional plantings of bananas are being planted. The tomatoes have set a light amount of fruit. The rains have caused some diseases to appear on the tomatoes. The spray program was not adequate to control the problems other than the wilts. The chillies also suffered from a lack of the proper sprays. The mangoes are growing very good. They are being fertilized and receiving proper care. Beets are being harvested. In general, the progress on the farm is normal.

**November 1992 :**

Farm has once again had labor shortages. The workers walked off to plant paddy. Tomatoes were harvested and sold to cover out of pocket expenses. New areas are being planted to bananas. The seed is being taken from established plantings. Colombo management continues to keep a strong hand on the operation of the farm. The de stumping operation is moving along. Mango trees are growing very good. We explained and demonstrated the cutting of suckers from the mango trees. Sufficient progress has been made to release the next twenty five acres of land to this group. The senior partner has just returned from a trip to all of the GULF Countries. He has returned with a great bit of spirit for the potential to export product to this area.

**December 1992 :**

By mid month the labor force was back to normal. The open areas in the newly planted bananas and the mangoes are being planted to green gram. This is a good move to fix nitrogen in the roots of these plants. Additional stumps are being removed. The main drain on the farm has been opened to remove excess water from the rains and the run off from the irrigation canals. Other new areas between the bananas and the mangoes are being planted to radishes. Additional beet plantings have also been completed.

## SYSTEM B - D & G

### **July 1992 :**

On this farm, we have begun to assist Jaya. He has given these people a lot of sound advice. They are planting as they clear. The most recent advance is the addition of one hectare of new land. They cleared it. Then they brought in a D-8 and ripped the hectare of land in two directions. After the ripping they cleared the roots and have it ready to plant. The cost of this operation to rip the hectare was 17,500 rupees. The land is well prepared. It will be planted to peppers for FAS. This farm has emphasis on bananas and chilies. In addition, they have small plantings of brinjal, okra, onions and some beans and gourds. Another new section is now being cleared of the jungle. They have a great problem with the wild animals. They have to employ three full time guards for the animals.

### **August 1992 :**

Every thing moving normal. Waiting for the seed to arrive to plant peppers for the FAS project. They are drying down some rather nice onions. Brinjal and okra harvesting well. Bananas making normal growth.

### **September 1992 :**

The brinjal planting has been pruned for a second growth crop. Seed beds for additional chilies are being prepared. Still waiting for the seed to plant the peppers for the FAS project. Bananas flowering very well with the arrival of the rains. Jungle clearing progressing in a normal fashion.

### **October 1992 :**

First chili plants have been removed from the seed beds and transplanted. Seed beds planted for brinjal. The banana harvest is increasing. About five bunches per week are now being harvested.

### **November 1992 :**

One acre of chilies have been transplanted. About one quarter acre of brinjal has been transplanted. Tomatoes and okra have been planted on a small scale. Additional bananas of about one half acre have been planted. Banana harvest has increased to about ten bunches per week. Bananas are being sold farm gate at a price of ten to twelve rupees per kilo.

**December 1992 :**

Chilies are growing very rapidly. The first fruits are beginning to appear. All other plantings are in very good condition. Elephants have been a problem this past month. About seventy five banana plants have been destroyed. They got by the watchers for some unknown reason.

**SYSTEM B COMMERCIAL ACTIVITIES - CIC**

**December 1992 :**

Awarded the privilege to begin operations of planting baby corn on repossessed land of the Eriyagama Group. Operations began this month.

## SYSTEM B - GENERAL

### **November 1991 :**

The preceding farms form the nucleus of the immediate group for regular assistance. During the past two months, a point has been made to visit all of the commercial farms in this system. Each week we are getting more requests which are being attended. It is apparent that very soon there will be approximately six more farms receiving regular assistance and about five more coming on stream for periodic advice. Major constraints for rapid development consists of financing availability, drainage installations, seed availability, control of wild animals, and adequate labor available.

### **December 1991 :**

The month of December had some erratic weather patterns. First, a seventeen day dry period extending from November 24 through December 11, and secondly, a very wet period extending from The evening of December 11 through December 19. The month terminated with an accumulative rain fall of approximately 40". The largest single, daily rainfall occurred on December 17 when 194.7 mm were measured. We were in the area during this deluge. We visited a large number of the farms to inspect the actual water flow and flooding problems. I now thoroughly understand the general reluctance of farmers not wanting to carry on a large scale cropping program during this period. Something must be done to help alleviate the serious drainage problems that exist in this system. Interest is high and many farmers are waiting to begin commercial plantings of melons, tomatoes, cukes, etc. as soon as they feel they are safe from floods and inundation.

### **January 1992 :**

The month of January has brought a great increase in planting activity. A five day rain period has delayed some of the field activity. A lot of very basic training needs to be conducted. We have learned that most of these people do not understand fertilizer mixes, pesticide mixes and the usage of these, and labor organization for the daily work chores. This is not a complaint but needs to be mentioned for the records. This is part of our responsibility and we will do everything within our powers to assist the farmers in these matters. It should also be remembered that many of the items taken for granted that the farmers were well versed in everything just is not correct. The real TA transfer has to begin with the very basics and move as management can progress with the Technology. Certain examples are as follows: Planting in larger blocks, cleaning a spray nozzle when the pesticide does not properly leave the tip of the gun, applying the wrong fertilizer mix

at the wrong time, and misunderstanding of Herbicides and their use. We are quite happy with the general response that we have received to date from farm owners, farm managers, and the real field laborer. We are certain that a continuation of this type cooperation will result in good final accomplishments.

**February 1992 :**

There is very little to say at this point under general except that no leases have been granted, no financing is available, and the authorities are playing with the water. Cut the cords and let it roll and results will come forward.

**March 1992 :**

Products from seven different crops grown on commercial and settler farms throughout system B. were accepted on the export market. Five of these crops were grown on commercial farms. Variety tests of certain melons also produced product acceptable for export. As soon as contracts for the pack-house are available a promotion program to plant the acceptable export crops will be launched. Work on the construction of the pack-house is falling behind schedule. The extreme heat has damaged crops on a lot of the commercial farms. The damage came about because of a shortage of water thus causing the farmers to fall behind on irrigation schedules. Low level water management people just will not let the water flow to the commercial farms.

**April 1992 :**

A careful review of the pack-house construction reveals that it probably will not be fully functioning much before August 1. We are going slow on planting items which need the full cooling and handling facilities. The severe heat combined with the cut off of water to many of the commercial farms as well as to settler farms growing other crops has caused a lot of damage to the newly planted crops and those that were in harvest. With farmers now beginning to make applications for loans, the land lease policy issue will come to light and must be settled if progress is to be made. Banks are going to require this paper if loans are to be granted. Seylan Bank has agreed in principle to loan working capital to farmers signing contracts with the TESS or other export companies. Participation in the commercialization and the "super commercialization" funds is beginning to gain momentum. What is really needed at this point is the full cooperation of the Mahaweli and decisions on the policy issues, if this program is ever going to get off the ground.

**May 1992 :**

Several applications are being processed for the different funds under the MARD project. The back rental debts will eliminate all applicants until they become current with their payments. The first refusals have been forwarded to farmers. They say they are going to pay. However, to date we have not seen any paid up receipts. Rains this month have broken the severe heat wave that has existed over the past two months. By mid to late June plantings should begin to jell with a lot of activity for the month of July. The pack-house construction and installation is still progressing very slowly. New investors continue to inquire about the area. Policy issues from the Seylan Bank related to loans for commercial farmers are still being established.

**June 1992 :**

June has been a very disappointing month. Many commercial farmers who were all geared to plant melons and other export crops find themselves buried in a mace of paper work and an unsurmountable set of obstacles which seem to have no end. The program as presented earlier just is not working. Tess has been reluctant to sign contracts, The system of a contract to get a bank loan is not functioning, and the facts as revealed on the data sheet passed out to the farmers several months back related to the pack-house program are not relevant. The matter is so critical that the approximate group of eight to ten farmers desiring to plant melons for export may miss the 1992 season completely. The cut off date for planting, due to the up coming rainy season, is approximately July 20. As of June 26, 1992, the Seylan Bank had made loans of 2,500,000 rupees to a total of 645 settler farmers, while three loans to commercial farmers were under consideration. This matter is quite understandable because MARD is under writing the cost of a possible failure through the farmer organization groups for settler farmers. It is also natural that any lending institution is not going to jump very quickly to the other side of the fence to rapidly take a more risky loan with a private individual. We certainly hope that some of the commercial farmers will be able to get loans in order to fulfill this requirement for participation in the different Commercialization Funds. We do have hopes that eventually these problems will be corrected. However, in the meantime, It is a worrisome bother.

**July 1992 :**

Three and possibly a fourth farm has made the deadline to plant cantaloupes for the export program. The general program has hit a lot on snags. The major problems consists of the functioning of the pack house, a break down in the marketing responsibility of prod by Tess and the inadequate function of the installed extension service to serve commercial farmers. We are going to try to convert the unused acreage of the other farmers to a program to plant peppers for the FAS export program. Since these can be grown through the wet season, there is a lot of interest in the program. Excessive high winds during the past several months in the area has caused a lot of damage to some of the existing crops. The problem is of a severity that we are presently investigating plants for wind breaks. Certain farms are located that wind damage has been minimal. However others lay such that this problem is a very limiting factor to get decent harvest during this period. Major problems continue to be inconsistent on farm management, a lack of investors willingness to make a long term financial commitment for continuous cropping to development good cash flow, and farm owner presence on the farms. The few farmers who have made a good commitment are showing progress and will eventually have a positive cash flow.

**August 1992 :**

Labor is the main issue this month. Practically all farms are suffering from a lack of sufficient laborers to plant and to harvest. The people just walk off t harvest the paddy. This is a serious problem and will compound with the increased production of diversified crops. The school people do not want to go to the fields to work to assist in the harvest and planting of the crops. The semi-annual inspection of the commercial farms in the system was made this month. The team will recommend the cancellation of leases for the farms where no activity is occurring. While the pack-house program is gathering force among the settler farms due to the under writing of the investment by the MARD project, the participation of commercial farms is sparse due to the financing problem. High winds continue to damage many of the crops in the system. Some scattered showers are beginning to occur in the area. Many farmers are complaining about the product prices that are being paid for the crops. This is a normal seasonal function when many products are in excess in the market place. These prices have not hurt the farmer who has product on the market every week of the year. In spite of lower prices, the constant supplier is still on the profit side of the lien for the year. It is the fair weather farmer who jumps in and out of the production of crops who gets hurt on glut markets.

### **September 1992 :**

The last week of the month saw prices recover for many of the vegetables. Brinjal and okra prices are back to seven rupees per kilo. Several farmers are not going to be caught with the labor shortage in the future. They have gone to the outside and hired labor which are going to be housed in shacks being constructed on the farms. Six farmers participated in a two day workshop which was held to discuss and begin to formulate farm plans for the coming year. It was necessary to work with the very basic facts about developing a cash flow and a cropping pattern. Presently, I'm in the process of getting the information on the computer and working out a plan as well as a balance sheet. There is a crucial point now arising as far as the up coming season for exports. many of the export buyers are in a period of indecision. Time is moving very fast for December plantings of melons and other export crops. Tess should have announced a program by mid October for their export products for the coming year. To date nothing has been decided. With no seed on hand and no plan, it will now be difficult to meet demand for the Ramada season. Without a program, the pack-house operation may fold. Rains began to all in the area about September 20, 1992 and has been a steady daily occurrence. Some days the quantity has been two inches. The pattern is quite a bit different from last year.

### **October 1992 :**

Labor still is the big problem in the area. Many farms still has not recouped their labor force. While many people had agreed to plant a lot of items during the wet season, the progress has been stymied by just a few labors to do the work. This brings about the need for automation and a lot of changes in planting technology. Contracts for the export crops have not been announced by any of the buyers. The survey department of the government has begun to survey the farms that have been ear marked for leases. It appears as if these people have a different map and boundaries than the plan of the Mahaweli. A lot of the farms have report that from two to six acres of land is being removed from the boundaries given to the owners by the Mahaweli. Rains have not been excessive in the area.

**November 1992 :**

Tess has made some efforts to talk to commercial farmers about growing some crops for export. There is a lack of communications between the Colombo management of TESS and the on site manager of the pack-house. When farmers go to the pack-house for contract information, they are always told that the product is not needed. The majority of the farms still have problems to get adequate labor. Rains have been sporadic and no set pattern of the monsoons have taken place. Activity in general is slow due to the wet season and the shortage of labor. The cyclone that was to pass directly through the heart of system b, changed direction and spared the area of a lot of damage. While rains were from medium to heavy over the cyclone period, there was very little flooding.

**December 1992 :**

Activities in general have been curtailed the first fifteen days of the month due to the rains. The formal monsoon rain pattern has taken place and the rains have been rather heavy from time to time. Farmers were able to begin preparing lands for plantings from December 20 onwards. By the end of the month there was a considerable increase in activity on practically all farms. Three farmers attended the farm plan workshop held on December 18. The data has been compiled for five farm plans. The problem that continues to exist is that the farmers are constantly changing the planting program. We are going to stick to the original plans for the present time. By mid February, we will probably have to make a revision of the program.

## **SYSTEM C - INFORMATICS FARM**

### **November 1991 :**

This farm has very good management and is proceeding very well with their plan. They are presently diversifying into onions, chilies, pumpkins, herbs, spices, and essential oils. Plans are now being formulated to begin production of watermelons, cantaloupes, casaba, and honeydews. The different types of melon trials are in the initial stages of getting inputs and soil preparations.

### **December 1991 :**

Coriander, castor, lemon grass trials are looking very good. Land preparations are under way for planting of a full line of melons. The heavy rains delayed transplanting of a large block of chilies. Some of the chili seedlings got rather large. Transplanting of these chili plants is nearing completion. Presently, we are assisting the management to combat a disease and insect attack on the cashew trees.

### **January 1992 :**

The essential oils trials are progressing very well. All growth of the plants is quite normal. The commercial planting of chilies is coming with a very heavy fruit set. The spray program for control of the insect that is causing the problem for the cashew trees is producing results. It seems as if a 14 day schedule may solve the problem. We are hoping that after the problem is controlled that a 21 day rotation may suffice. The melons that were direct seeded were severely damaged by rats eating the seed before it could germinate. In view of this problem, we have started a system to produce cellular transplants. It is not prudent to risk high priced seed by direct seeding this type of crops. We are presently trying to get the company to rent the good cut disc harrow that the Mahaweli has on the commercial farm in System C. The purpose of this rental is to show farm management how to control the grass that grows between the cashew tree rows. It is a fire prevention measure. This is a real problem farm and I have faith that these people will make it.

**February 1992 :**

The spraying of the cashews is bringing results. Every tree that is improperly sprayed sticks out like a sore thumb. The essential oils trials continue with normal progress. Management is still having trouble to produce melon seedlings. It will just take time until it is learned that adequate watering will bring results. This area is exceptionally dry. Thus more than normal water is required to grow anything. The few melon plants that have survived look very good. The dry area should result in some good production. Chili quality is excellent. Red fruits are now appearing on almost all plants. For a second set of fruit it appears that daily watering will be essential.

**March 1992 :**

Initial trials of the honeydew melons have revealed that this area is an excellent area for any type of melons. The major draw back is available water. We are presently discussing the installation of a drip system for twenty acres of land. Due to the types of soil and the lack of large amounts of water, new methods of irrigation must be installed to get results. About ten acres of beautiful chilies have been lost due to a lack of water. The cashew plantation continues to flower profusely. The insects appear to be under control. Spraying continues.

**April 1992 :**

Spraying on the cashew plantings has been suspended for the present time. The ants are beginning to work very well on the trees as a parasite for the insects. The set of fruits on the older trees is appearing in a heavy manner. Six inches of rain fell on this farm on April 18. About one half of the chili planting was lost during the severe heat when there was a water shortage. The management of this operation is preparing a special project to cover the installation of a cashew processing facility, land preparation equipment, and a drip irrigation system for diversified crops.

**May 1992 :**

Cashew transplanting continues now that rains have fallen in this area. The cashew trees are coming forth with a nice set of fruit. Management continues to formalize the necessary documents for the special project.

**June 1992 :**

The cashew harvest has ended. No idea on the amount of nuts produced because the workers are still gathering the crop from the ground under the trees. The company continues to prepare the paper work for the special project. Preparing new seed beds for additional field plantings of cashews. Can not start other diversified cropping program until some irrigation equipment is installed on the property.

**July 1992 :**

According to reports from farm management, the recent cashew harvest amounted to about 500 kilos gross. High winds and temperatures plus excessive drought have caused a loss of about thirty five percent of the newly transplanted cashew trees. Watering continues with the use of a tank to haul water. New seed beds are to be started about mid August. Still working on special project with no advancement for the purchase of an irrigation system.

**August 1992 :**

Work has begun to plant new nurseries for the production of cashew seedlings to be transplanted during the wet season. There has not been any new developments for the diversified plantings pending the approval of the special project which has been presented during the past month. Labor is a problem due to the present paddy harvest. This farm is short on workers for the necessary jobs.

**September 1992 :**

No active report for this month because, I missed the managers during my visits. Seed beds have been planted for the production of seedling tree production. Rains have begun to fall in the area.

**October 1992 :**

The management has reported that the trial we requested for direct seeding of cashews has been successful. They explained that about fifty acres had been direct seeded. After about six weeks, they had small trees six to eight inches high. They were planning to proceed with this operation to coincide with the rains. The germination was so good that they were reducing the number of seeds from three to two per planted hole. They also started small nurseries to produce seedlings to replace any plants which may have been destroyed by wild animals or other pests. Still no word on the special project to assist in the diversification program. The problem of the settlers that were moved in on the new section of land for this farm, during April 1992, has not been solved. It seems to be a done deal and the settlers will stay, taking the best portion of the land and the water source for irrigation.

**November 1992 :**

The direct seeding of cashews has slowed considerably this month because of low rainfall in this area. Labor is a problem.

**December 1992 :**

Rains have fallen rather well in this area during late November and early December. Have not been able to speak to management about progress. It seems that my visits were made on days when the managers were doing errands in the neighboring towns.

## **SYSTEM C - FORBES AGRICULTURAL SERVICES**

### **November 1991 :**

A constant technology transfer has been going with this company since I began working in the area. This has included cultivation procedures, pest control, irrigation, farm layout, and following all phases of the gherkin operation. As soon as the new farm is turned over to this company, we will become involved on the layout and design of the research and crop demonstration trials to be established. Advice has been requested for reorganization and staffing of their agriculture division.

### **December 1991 :**

All phases of this operation are dormant as company reviews different and new options due to the reversal of farm lease.

### **January 1992 :**

All phases are about the same as reported the previous month. The company is waiting action on the land to begin to move the brining equipment. Bulk vats are being emptied to make room for the new crop that will begin harvesting early February. Communications with joint venture partners not promising due to the delay on decisions about the plant site.

### **February 1992 :**

Bad news this month. All joint venture partners have thrown in the towel due to world economic conditions and the uncertainties about the land for the plant. These people will still buy product on a spot basis as needed but have said no to investment in SL. Several meetings have been held with management to plot out new plans and redesign a scaled down plant which can be installed. Two major machinery suppliers are in the process of studying the design. New crop has begun to harvest. FAS continues to conduct field research for various new products.

### **March 1992 :**

The trip of FAS people to the Food Fair in Europe has given these people renewed forces to proceed with the installation of a heat processing plant for gherkins and other related products. Also by late in this month large pickle companies, operating in the northern and southern hemispheres of the Americas, found themselves with a shortage

of brine stocks of pickles due to the abnormal weather conditions that prevailed during January and February of 1992. Late March, FAS sold their entire brine stock on hand and received large orders for delivery in September. Likewise, Spain has learned that production costs have driven them out of business. Therefore, they have to look to the outside for cheaper raw product. This move has also opened a new market for FAS. They still have in hand a standing order for 6,000,000 U.S. dollars finished product as soon as they are able to produce the products. They have experienced a short fall of about 250 tons of product during this growing cycle. The water management people in system c changed the water flow pattern after they had agreed to a plan prior to the planting of the Gherkins in this system. Would someone please quit playing games with this project? A total of 547 out growers contracted a total of 100 acres of pickles for the January - Mid April growing season. Yields will be determined by the end of April. The preparation of brine stocks for export and the receiving and brining of new crop provided employment for a minimum 30 people to maximums of 65 people depending on new product flow and export orders.

#### **April 1992 :**

Serious problems are developing for this company due to a lack of adequate facilities for brining and handling of export stock. Due to a lack of space to construct adequate storage facilities, very high quality brine stock is suffering quality deterioration after it is final graded and placed in the barrels for export. During a visit this month, we saw product temperatures of 65 degrees centigrade in the barrels which had been packed for export. The top layers of pickles in the barrels were being cooked by this intense heat. It only takes a short time, under these conditions, to completely ruin a high quality shipment. A Canadian buyer visited this company with the purpose to establish a new product line of fired sweet and slightly pungent peppers. While raw product from trial plantings is of adequate quality and commercial quantities can be grown in the Mahaweli, FAS does not have sufficient processing space, at the present site, to take on this project. A second, new client, visited this company this month to confirm a large order of pickles. This clients main purpose of making the visit to Sri Lanka was to inspect the facilities to make certain that adequate capacity was available to produce the product that was needed for his company. The present planting cycle of pickles now under way in this area will result in about 300 acres planted among 1,200 out growers. Another 50 acres of peppers could be contracted among 250 out growers, if plant facilities were available to process the raw material. Brining and export facilities, as well as support services for these operations, will employ about another 125 people. The recently completed growing cycle of pickles produced the following results: 547 out growers planted 100 acres and the yields were 2.37 tons per acre. Low yields were a result of drought stress caused by irrigation water cut offs.

**May 1992 :**

Plantings for the present growing cycle continue to expand. The harvest will begin in a formal way in about two weeks. ASAD has decided not to contract cukes in competition with FAS in system c. Sunfrost continues to plague FAS with some rather dirty business ethics. This company really does need a decision on the land to begin to install larger and permanent brining facilities so they will be able to properly process the product to fill the present orders now in hand. This delay is a great hindrance for MED to fulfill project goals.

**June 1992 :**

Company has received a firm order for four containers of fired peeled ripe peppers from Canada buyer. Plantings now under way to fill order. Five hundred acres of gherkins have been planted for this cycle. Another five hundred acres must be planted to fill pending orders. They are going to run into problems due to the August 15 cut-off date for water in the area. Went to talk to RPM about this problem. RPM states that he needs authorization from Colombo in order to supply water after this date. Poacher buyers from Sunfrost, Pickle Packers, and Viswakula are trying to get farmers to break FAS contracts and sell product to them.

**July 1992 :**

Harvest of pickles going very well with quantities of daily receipts reaching 20 tons. They are in a real bind with a lack of adequate facilities to handle this type of raw product flow. Yields are surpassing better than expectations. A few growers have climbed to the seven ton yield level with the average ranging between three and four tons. Company expecting to reach goal of 2,100 of product for this cycle. This project has been extremely beneficial for out growers with the number reaching 2,300 for this cycle. Very excellent results. Signifies the high level of technology being passed on to the contract farmers and the results that occur when a project has proper and adequate management. Acreage plantings have been expanded to bordering areas of system h. Presently, they have about 700 acres under cultivation in all areas. The apparent show of some muscle has temporarily slowed the activity of poacher buyers. Seed for the up coming pepper plantings is suppose to arrive by mid August. Company considering contracting peppers in Systems B and H.

**August 1992 :**

Daily receipts of raw product for this months have climbed to 35 to 40 mt. Yields are far surpassing expectations. The lack of adequate processing facilities and insufficient quantities of barrels for the export pack has created a serious problem for the management of this company. They have to actually destroy raw product from the days receipts. According to company managers a competitive company in the pickle business, who produces barrels, has refused to sell FAS barrels. The other company that produces barrels has a factory capacity of 120 barrels per day. For FAS to keep up to date, they need 350 barrels per day. Recently, the barrel factory has reduced deliveries to only 80 barrels per day. An import order for barrels from India has been made but this represents only a partial relief. To complicate matters further, as the first shipment of barrels arrived from India. A large number of workers at the processing facilities walked off the job to harvest paddy. It is now well over one year since this company began negotiations for a property in System C to install adequate processing facilities for this operation. To date, they have not been successful in completing the deal. They need a brining yard for the installation of at least 150 bulk tanks. They are now pumping millions of rupees per week into the economy of this area. I would hope that someone would soon see the light and lift the blocks that have hindered this operation.

**September 1992 :**

The present growing cycle is in the final stages. Harvests are terminating very rapidly. Daily receipts are now down to four tons per day. Sorting and packing for the export orders has been increased to meet present shipping deadlines. The company has received some additional orders for larger size pickles. They are presently arranging some contracts with farmers in System B to plant additional acreage for the extra quantities. The land for the new brining facilities still has not been turned over to the company.

**October 1992 :**

Small amounts of product continued to be harvested almost all of the month. The rains in the producing area were not sufficient to wreck the plantings. The stepped up tempo to grade and pack product for export continued throughout the month. Top management had to make a quick trip to Europe when the currencies collapsed in this part of the world. Contracts had to be re written in US Dollars to guard against any future problems in this area. The shipments on the high seas were a done deal based on firm prices and contracts written in pounds sterling. The exact extent of the losses will not be known for at least three months and possibly four months due to arrival times and credits extended for payments after product acceptance. The company is still short on large size pickles and long on stocks of small sizes. We believe that demand will increase for the small sizes after the beginning of the coming year. We also believe that when the quality product begins to arrive at the market demand will also pick up.

**November 1992 :**

A brisk schedule continues for the grading, packing, and shipping of brined product. The new land, for the brining facilities is being surveyed for turn over to FAS. The pepper seed has not been shipped because the company has not received an import permit from Quarantine. New or increased orders for small size pickles have not been received. We still believe that market matters will change after the first of the new year.

**December 1992 :**

Out stations have been closed and all operations for grading and packing are now concentrated at the main base. Inquires are now coming to the company about additional orders for small size pickles. Management is now feeling better about moving the present stocks. Farmers in system B have planted the acreage reserved for the bell peppers to local chilies. The pepper seed has arrived in Colombo but the import permit is not correct with the documentation sent with the shipment. Therefore, there is a delay until the papers can be changed. There is a delay with the land in system C because the results for the evaluation have not been forwarded to establish a yearly rental price. FAS can not take possession until a rental price has been established and approved by the company officials.

## SYSTEM H - PIERIS FARM

### **November 1991 :**

Assistance has been given to this company to establish a research plan to study the viability of producing stake tomatoes, processing tomatoes, cantaloupes, watermelons, honeydew melons, casaba melons, sweet corn, cumin, and fennel for local markets as well as export markets. The trials are now under way under the management of a very highly trained specialist. Early results look very promising for success.

### **December 1991 :**

Trials have suffered some damage from the heavy rains. Still too early to assess extent of losses. This company has secured some new land within the Mahaweli system to plant the melon fields. Interest is very high and management is ready to move into a full fledged program.

### **January 1992 :**

This was a month of breakthrough for this company. The tomato trials survived the heavy December rains and produced a good crop of very high quality tomatoes. The honeydew and cantaloupe trials were lost due to the rains. However, the watermelon trials did survive and have the potential to produce a good crop. Rabbits ate the sweet corn plants. The big breakthrough came when a one acre block of tomatoes were transplanted with cellular produced seedlings. The seedlings were transplanted at the age of 21 days with a 100% take of the plants. At forty days from seeding, the first flower clusters broke on the plants. A follow up planting of one acre of watermelons is progressing quite well. These people need land and they are off and running in system h. Let's get with it and give this company some support. They have also joined in the PIP tomato project.

### **February 1992 :**

Bacterial wilt is in the process of eliminating the commercial tomato trial. Peter is working with this group to assess new varieties. It will be necessary to conduct a large scale variety screening program and possibly a breeding program to get resistant varieties to this problem. Client ready to embark on this program. Sugar baby watermelons were harvested and displayed in the MARD booth at the Mahaweli Week Exhibition at Welikanda. Fruits of 3 to 6.5 kilos of very high quality were produced. The follow up acre looks very good. Client is hampered by lack of land to continue the different projects.

**March 1992 :**

The one acre tomato trial was completely eliminated due to bacterial wilt. The watermelon continues to harvest a large amount of very excellent quality fruit. A water shortage has stopped the advanced work of this company to investigate tomato varieties. They are presently trying to condition some other land for trial plantings. The technical evaluation for the proposals of the Chinese farm in system H was awarded to this company. However, when the results were past to the higher authorities, there seems to be some opposition to give this farm to the Pieris Company.

This group is ready to roll and will put in a large program immediately if they are able to secure the necessary land.

**April 1992 :**

Company officials are thoroughly disgusted with the run around they are receiving over the property in system h. They are considering other options for a nucleus operation. In the meantime, they are proceeding with a pilot operation on privately held land. A design was established to begin plantings of stake tomatoes, juane canary and honey dew melons, watermelons, butternut squash, and okra. From recent experiences with the marketing of products, this company is prepared to establish their own local distribution of products as well as open the export channels through the present operations they have established in various foreign countries. First pilot plantings will get under way in early May. Every time I visit this area I'm confronted with out growers who want to know when they can begin planting crops for this company.

**May 1992 :**

Rains have delayed any pilot plantings for this month. The area to be planted have been sprayed with round-up for the nut grass. This has worked very well. This company is still waiting for a decision on the farms in order to begin to make some concrete production plans.

**June 1992 :**

First plantings of Mayan Sweet, Juane Canary, and Sugar Baby melons made on June 16. A second planting will go in the ground about July 1. Considering offer of EIED for the Dambewatana Farm. Local management is now reworking the budget and studying the possibility of a pack-house installation on this farm to handle company produce as well as produce from an out grower program. Decision should be made very soon.

**July 1992 :**

R&D work is continuing with the first plantings of melons looking very well. After 43 days from planting, Canary melons are showing fruit weighing up to three pounds, Mayan Sweet showing fruit of two pounds, and Sugar Babies are just beginning to set fruit. Twenty six additional varieties of melons and seventy one tomato varieties have also been planted. Initial contacts have been made with Expolanka to market the melons in the export market. Company is planning to follow melon plantings with peppers for FAS. The first effort of commercial companies beginning to cooperate in joint programs. The commitment by the parent company and the full support of top management to field management creates a very healthy environment to get results from this type of a project.

**August 1992 :**

The canary melons are into harvest. The quality is excellent with brix readings ranging from 10% to 12%. A slight problem has arisen with a very large fruit size. The fruit are averaging about 2.5 kilos in weight. The largest fruit harvested to date weighed 3.4 kilos. Sample shipments have been made to twelve different markets of the Gulf, European and Asian markets. product is also being promoted on the local market. From a fruit count of the plot and an average weight taken of 150 fruits, yields are in the thirty ton per hectare range. About 80% of these fruits are of an exportable quality. Expolanka and the Tess company are trying to locate export markets. The Mayan Sweet honeydew planting has been attacked by "Gummy Stem Blight". Fruits are ranging from one to two kilos in size. Only a portion of these fruits will make it due to the disease. Tomatoes and other melon trials are progressing very well. High winds continue to blow in the area which makes plant care quite difficult. While this is a completely new fields for the management of this company, they learn the business. Interest in the Dambewatana farm has been dampened when they were asked 75,000 rupees per acre to make an out right purchase of the farm. A rental price has been levied at 6% of the value or 4,500 rupees per acre per year. Someone classified this land as fully irrigable with year round water. There aren't any lands in System H that have year round water from the Mahaweli channels.

### **September 1992 :**

Mr. Alif, of Expolanka, has had great success with the trial shipments of Canari melons sent to Europe. The product was accepted throughout the European Markets. The reports came back as melons having a very high quality. A trial forty foot container has been ordered for delivery in late December. Due to the rains, it will not be possible to grow the melons. A suggestion to try to produce the product under plastic has been rejected by the Pieris Management Group. The next window will be to try to ship the product for March delivery. The market window for these melons in Europe is from October through Late July. Leaf minor and the shortage of water for irrigation has resulted in the loss of the entire tomato trials and the late melon plantings that were to harvest in late September. The pepper trials which were planted in late September have been saved by the first early rains which came in a strong fashion. Green bean trials will be planted during the early days of October. A small trial of melons under plastic will be planted about October 15, 1992.

### **October 1992 :**

A green bean and fordhook lima bean trial were planted in early October. Germination has been very good and the growth is normal. A small trial of melons to be grown under plastic has been seeded at the end of the month. The final harvests of the melon trials were completed this month. Juane Canary yielded twelve tons to the acre. The Mayan Sweet melons had a fruit set to also yield approximately twelve tons to the acre. However, Gummy Stem Rot killed a lot of the plants before the fruit could fully mature. The actual yield was reduced to about six tons per acre. The brix readings for the Canary melons ranged from 9.5 to 12 while the readings for the Mayan Sweet ranged from 11 to 13.4. From the variety trials nine selections were made for further investigation. These trials had been given up for lost but due to a good rain, a fair evaluation of about half of the varieties was possible.

### **November 1992 :**

The bean trials are growing very well. The weather is not following past years trends as to rainfall. The rains have been light to non-existent. Water is also in short supply for irrigation. Therefore, the melon trials are suffering. Pepper trials have fallen to a virus problem and a very severe attack of leaf minor. Since I have not permitted the use of monocrotophos, These people have been lost in the use of other insecticides. As time goes on, they will eventually get the handle to a different spray schedule.

**December 1992 :**

Gummy stem blight has wiped out the melon trials. There will not be any December harvests for trial shipments. The green beans produced a good quality product. The lima beans set very few pods because, we believe the density of the plants was too high. New plantings of melons will be made the early days of next month. The rains have finally set in rather heavy. Mr. Harmon has supplied information for contacts with a melon buyer in Singapore for the Pieris People. Since there aren't any melons, the contact will be delayed until product is available. One acre of red onion trials are progressing very well. We requested a stepped up spray program for disease control. Another one acre trial will be planted in January.

**SYSTEM H COMMERCIAL FARM ACTIVITIES - MALWANAGAMA**

**November 1992 :**

Made first trip to farm, after the CIC takeover, with Mr. Glen Allen of the Evaluation Team. Work had been under way about two weeks prior to the visit. About one half of the irrigation ditches were cleaned and approximately half of the land was plowed in preparation for paddy planting.

**December 1992 :**

Did not visit the farm this month because the November visit was made near the end of the month.

UDAWALAWE - HASSLEDONK

**February 1992 :**

New farm on stream this month to establish an eighty acre asparagus planting. Land inspected and is suitable for the crop. Limiting factor will be water. If adequate water can be located the project will begin as soon as land lease is signed.

**March 1992 :**

Client has been advised that land lease is eminent. In view of this notice a PIP is being designed for TA to assist this project. The client has also ordered fruit trees from the MARD nursery in system B. These plants will be grafted during the coming weeks. Plans have also been finalized to search for water and the asparagus trials have been designed.

**April 1992 :**

TA inputs have been given to Mr. Peters who is completing the PIP project for this client. As soon as the issuance of the land is confirmed, the client will make the search for the water to irrigate the crops. If water is found, formalities will be completed and the project will get under way.

**May 1992 :**

Client is still waiting for issuance of the land to begin operations. A great opportunity is being lost during the present rains to begin initial soil preparations.

**June 1992 :**

No change from May report.

**July 1992 :**

Water search has resulted with a flow of only three liters per minute for the assigned property. This is not sufficient for any type of cultivation for the proposed site. These people have also expressed an interest to grow melons. This idea came to light after a market investigation in Europe which shows a great potential. Have to look for a new property where water is available.

**August 1992 :**

Efforts have been made this month to get permission to cut a road on a new property to get a well drilling rig on to the property to make test drilling for water available. They would like to begin plantings in October if adequate water can be found through the test drilling. The RPM and the Lands Manager are in agreement to grant the road access if Colombo will give their approval. The local FBC has made the formal requests to the Colombo office.

**September 1992 :**

A request for a seed source of Asparagus seed was fulfilled this month. No additional information has been received about the water search and the availability of land with water.

**October 1992 :**

Saw the Mrs. of the project at Uda Walawe as she was trying to get permission for a road right-a-way to get into the new property to drill for water. Everyone in the office said that there was not any problem to get the permission.

**November 1992 :**

No report that progress has been made on the road entrance to the property.

**December 1992 :**

No direct contact with the client. The FBO reports that permission still has not been granted to enter the property to drill for water.

## UDAWALAWE - AITKEN SPENCE

### **November 1991 :**

Plans were formulated with this company about four months ago to begin a research program to study cultivation procedures for eight different items that will be grown for processing through the proposed cold-chain facilities that will be installed in Uda Walawe. A production plan was written, cost estimates prepared, and a visit was made to the area in early September. Various changes and delays have been experienced which have this program on hold at the present time. Likewise, technical advice has been given in the design of the cold room and pack-house facilities. We expect that this project will get underway any day.

### **December 1991 :**

Spent five hours on November 26 to finalize cold room and pack-house equipment. Company did not meet December 4 deadline for signing of agreement. I have not been advised if the new deadline of December 18 was met. Since we still have not been advised to begin field operations, we assume that the agreement has not been signed.

### **January 1992 :**

Still awaiting the final word on the agreement to begin field trials. Have been advised that all systems should be go by early February.

### **February 1992 :**

Agreement with USAID has been signed and design of pack-house underway. Target for field trial plantings of February 21 was not met due to improper land preparation. Present gherkin plantings in trouble. Trial shipment of bananas exported to new European customer. Last year customer will buy bananas but wants a cheaper price. June 1991 planting of bananas showing first bloom.

### **March 1992 :**

Pack-house design has been completed by MED short-termer. Field trials scheduled for March planting delayed due to field contamination. The selected field is loaded with nut grass and must be cleaned prior to planting. There are doubts about the success of melons in this field due to past crop rotation history. Management needs to get with it and accept the facts. We are ready.

**April 1992 :**

No trips were made to this area during month because management did not advise us of the application of the round up until April 25. Trip programmed for May 11 to begin planting of trials. It has been suggested that a new field be selected for the melon trials. Management still tends to be quite lax about moving this project.

**May 1992 :**

Okra and bean trials were planted during this month. The treatment of the nut grass is working. Populations are being reduced in the treated areas. Additional land is being treated and additional plantings will be made during the coming months. Heavy rains have been falling in this area since about mid month.

**June 1992 :**

Management canceled my late month trip to the area due to the loss of the trials planted during May. A labor dispute among the workers resulted in the destruction of the May planted trials. Trials to be replanted during early July.

**July 1992 :**

Cantaloupes, Okra, baby corn, long beans, and zucchini squash trials were planted during July. Progress to date is fair to normal. The main limiting factor to move this project forward is inadequate Colombo management. While some improvements have occurred during the past weeks, a lot of changes need to happen to get the necessary results. This company has pickle operations in Uda Walawe, Moneragala, and Kalutara. A total of 500 out growers are under contract. They are packing a very high quality of vinegar brownout midget pickle product for export.

**August 1992 :**

The breeder's line of Cantaloupe Hybrid G has harvested and samples were sent to the UK. Company management reports that the melons arrived in good condition but has a very low demand for this market. They were advised that this is a melon for the Japan and Hong Kong markets. It is a Gallia type melon to compete with the Israel variety. The variety is a green flesh melon with a very slight et. it has a lot of disease tolerance and resistance for conditions in Sri Lanka. The July planted trials are progressing quite well. Baby corn, zucchini squash and the okra have begun to harvest. The zucchini has performed exceptionally well to date with some very good quality fruit. The melon plants are making a very nice set of fruit. They will harvest during the coming month.

A small trial of Sweet Potato varieties has been made this month. Additional and larger plantings need to be made to continue this research work. Assistance is being given for the engineering and purchase of the equipment of the pack-house facilities.

**September 1992 :**

Assistance continues for the purchase of the cold room and other pack-house facilities. The first round of trials have harvested with good results. Additional plantings are being made. The whole project is progressing very slowly due to the insecurity of Colombo Management and the initiative to make decisions to move ahead. They are still trying to make a profit from research variety trials.

**October 1992 :**

Colombo management has reported that the melons have harvested and were sold on the local market. Baby corn, more sweet potatoes, beans, okra and brinjal trials have been planted. Assistance has continued for the purchase of the cold room equipment.

**November 1992 :**

The bids for the cold room equipment were opened this month. A trip was not made to Uda Walawe this month because Colombo management reported that the trials were progressing in a normal manner. Additional trials of melons, butternut, pumpkins, and beans were planted this month. Rains are just normal.

**December 1992 :**

A trip was made to the site in mid December accompanied by Mr. Alex and Dr. Hydber. The plantings were a complete and utter disappointment. Nut grass spray advice, pesticide recommendations, and general care advice had not been followed. A big show was under way with a large group of workers digging holes to plant bananas. This is a disgusting matter because Colombo management will not be fair and honest about the whole matter. A return trip will be made in early January.

**LABOR AND OUTGROWERS**

April 1992 :

<b><u>CLIENT</u></b>	<b><u># LABORERS</u></b>	<b><u># OUTGROWERS</u></b>
SAPUKOTANA	05	00
JAYARATNE	08	00
KUMARA	10	00
WIJASOORIA	11	00
NASPA	16	00
AGROLAC	00	00
KAPILA	UNKNOWN	UNKNOWN
AMEEN	30	00
SUNFROST	UNKNOWN	UNKNOWN
JAYASEKERA	11	00
WIJASEKERA	09	00
LANKAGE	04	00
ERIYAGAMA	UNKNOWN	UNKNOWN
INFORMATICS	50	00
FAS	60	1200
PIERIS	10	00
HASSELDONK	00	00
ASAD	UNKNOWN	UNKNOWN

LABOR AND OUTGROWERS

May 1992 :

<u>CLIENT</u>	<u># LABORERS</u>	<u># OUTGROWERS</u>
SAPUKOTANA	05	00
JAYARATNE	08	00
KUMARA	08	00
WIJASOORIA	11	00
NASPA	20	00
AGROLAC	00	00
KAPILA	08	00
AMEEN	30	00
SUNFROST	UNKNOWN	UNKNOWN
JAYASEKERA	11	00
WIJASEKERA	09	00
LANKAGE	04	00
ERİYAGAMA	UNKNOWN	UNKNOWN
INFORMATICS	50	00
FAS	60	1200
PIERIS	10	00
HASSELDONK	00	00
ASAD	UNKNOWN	UNKNOWN

LABOR AND OUTGROWERS

June 1992 :

<u>CLIENT</u>	<u># LABORERS</u>	<u># OUTGROWERS</u>
SAPUKOTANA	10	00
JAYARATNE	08	00
KUMARA	05	00
WIJASOORIA	00	00
NASPA	22	00
AGROLAC	00	00
KAPILA	UNKNOWN	UNKNOWN
AMEEN	35	00
SUNFROST	200	200
JAYASEKERA	UNKNOWN	00
WIJASEKERA	15	00
LANKAGE	12	00
ERIYAGAMA	UNKNOWN	UNKNOWN
INFORMATICS	75	00
FAS	90	2000
PIERIS	18	00
HASELDONK	00	00
ASAD	UNKNOWN	UNKNOWN

LABOR AND OUTGROWERS

July 1992 :

<u>CLIENT</u>	<u># LABORERS</u>	<u># OUTGROWERS</u>
SAPUKOTANA	15	00
JAYARATNE	08	00
KUMARA	10	00
WIJASOORIA	00	00
NASPA	20	00
AGROLAC	00	00
KAPILA	06	00
AMEEN	39	00
SUNFROST	200	500
JAYASEKERA	03	00
WIJASEKERA	17	00
LANKAGE	09	00
ERİYAGAMA	06	00
D & G	06	00
INFORMATICS	50	00
FAS	240	2300
PIERIS	10	00
HASSELDONK	00	00
ASAD	245	500

LABOR AND OUTGROWERS

August 1992 :

<u>CLIENT</u>	<u># LABORERS</u>	<u># OUTGROWERS</u>
SAPUKOTANA	10	00
JAYARATNE	08	00
KUMARA	10	00
WIJASOORIA	04	00
NASPA	20	00
AGROLAC	00	00
KAPILA	06	00
AMEEN	22	00
SUNFROST	120	500
JAYASEKERA	08	00
WIJASEKERA	12	00
LANKAGE	07	00
ERİYAGAMA	06	00
D & G	06	00
INFORMATICS	50	00
FAS	190	2300
PIERIS	10	00
HASSELDONK	00	00
ASAD	245	500

**STATISTICS FOR LABOR AND OUTGROWERS**

September 1992 :

<b><u>CLIENT</u></b>	<b><u># LABORERS</u></b>	<b><u># OUTGROWERS</u></b>
SAPUKOTANA	10	00
JAYARATNE	04	00
KUMARA	06	00
WIJASOORIA	04	00
NASPA	15	00
AGROLAC	00	00
KAPILA	06	00
AMEEN	10	00
SUNFROST	120	500
JAYASEKERA	08	00
WIJASEKERA	07	00
LANKAGE	07	00
ERIYAGAMA	06	00
D & G	06	00
INFORMATICS	50	00
FAS	300	2300
PIERIS	06	00
HASSELDONK	00	00
ASAD	50	500

**STATISTICS FOR LABOR AND OUTGROWERS**

October 1992 :

<b><u>CLIENT</u></b>	<b><u># LABORERS</u></b>	<b><u># OUTGROWERS</u></b>
SAPUKOTANA	10	00
JAYARATNE	06	00
KUMARA	05	00
WIJASOORIA	03	00
NASPA	08	00
AGROLAC	00	00
KAPILA	06	00
AMEEN	09	00
SUNFROST	50	100
JAYASEKERA	08	00
WIJASEKERA	12	00
LANKAGE	07	00
ERİYAGAMA	06	00
D & G	04	00
INFORMATICS	50	00
FAS	80	250
PIERIS	10	00
HASSELDONK	00	00
ASAD	25	00

STATISTICS FOR LABOR AND OUTGROWERS

November 1992 :

<u>CLIENT</u>	<u># LABORERS</u>	<u># OUTGROWERS</u>
SAPUKOTANA	02	00
JAYARATNE	04	00
KUMARA	05	00
WIJASOORIA	01	00
NASPA	04	00
AGROLAC	00	00
KAPILA	06	00
AMEEN	08	00
SUNFROST	30	00
JAYASEKERA	08	00
WIJASEKERA	06	00
LANKAGE	05	00
ERİYAGAMA	06	00
D & G	04	00
INFORMATICS	50	00
FAS	65	00
PIERIS	04	00
HASSELDONK	00	00
ASAD	20	00
MALWANAGAMA	60	00

STATISTICS FOR LABOR AND OUTGROWERS

December 1992 :

<u>CLIENT</u>	<u># LABORERS</u>	<u># OUTGROWERS</u>
SAPUKOTANA	01	00
JAYARATNE	05	00
KUMARA	05	00
WIJASOORIA	01	00
NASPA	10	00
KAPILA	06	00
AMEEN	30	00
SUNFROST	25	00
JAYASEKERA	08	00
WIJASEKERA	04	00
LANKAGE	05	00
ERIYAGAMA	06	00
D & G	04	00
CIC	UNKNOWN	UNKNOWN
INFORMATICS	50	00
FAS	65	00
PIERIS	04	00
HASSELDONK	00	00
ASAD	25	00
MALWANAGAMA	50	00