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SWAZILAND
COMMERCIAL AGRICULTURAL PRODUCTION AND MARKETING PROJECT

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END OF PROJECT REPORT

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AND

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List of Acronyms

CAPM	Commercial Agricultural Production and Marketing Project
COP	Chief of Party
COOPS	MOAC Department of Cooperatives
Drp	Drip Irrigation
E	Emalangeni
EOPS	End of Project Status
FA	Field Assistant
FO	Farmer Organization
GOS	Government of Swaziland
Ha	Hectares
HFV	Hhohho Fruit and Vegetable Marketing Cooperative Society Ltd.
ITF	Individual Tenure Farm
KK	Khulumela Kwenta Vegetable Growers
LOE	Level of Effort
LOP	Life of Project
LT	Long Term
LTTA	Long-term Technical Assistance
MOAC	Ministry of Agriculture and Cooperatives (Swaziland)
MS	Marketing Specialist
MT	Metric Ton
NAMB	National Agricultural Marketing Board
PIR	Project Implementation Report
POW	Plan of Work
S.A.	South Africa
SBGT	Swaziland Business Growth Trust
SDB	Swaziland Development Bank
SNL	Swazi Nation Land
STTA	Short-term Technical Assistance
TDL	Title Deed Land
TLA	Traditional Land Area
UNISWA	University of Swaziland
U.S.	United States of America
USAID	United States Agency for International Development

A. Background

The Commercial Agricultural Production and Marketing project covered a six year period, from 30 June 1989 to 31 March 1996. The project was funded by the United States Agency for International Development with Chemonics International as the primary contractor. The project was redirected twice, resulting in three phases of implementation. This report will cover the entire project, but with major focus on the last phase, its achievements and current status.

1. Goal and Purpose

The goal and purpose of the project remained unchanged during the life of the project. These are stated as:

Goal: To increase the agricultural sector's contribution to the national economy of Swaziland.

Purpose: To establish an environment that is stimulating increases in small-scale commercial agricultural production, other agribusiness's, and domestic and export marketing.

2. End of Project Status

The EOPS for Phase I were as follows:

a. GOS professionals, working in a coordinated manner and in collaboration with the private sector, will be providing decision makers with quality analyses, options, and recommendations for policies and programs that will reduce constraints to production and stimulate increases in commercial agricultural activity.

b. GOS policy makers will be taking action on policy program recommendations needed to stimulate private sector initiatives in commercial agriculture.

c. GOS ministries will be implementing programs required to effect policy changes.

d. The GOS will be playing a regulatory and facilitative role in commercial agricultural development by working collaboratively with the private sector to facilitate its response to an improved environment of commercial agricultural activity.

e. Private sector entrepreneurs (small-scale commercial agricultural producers, marketers, suppliers, exporters and other agribusiness and agribusiness associations) will be responding to opportunities for increased commercial agricultural activity.

f. The University of Swaziland will be: (1) training current private and public sector individuals to participate more effectively in commercial agriculture production activities and, (2) preparing future private and public personnel to contribute to commercial agricultural expansion.

g. Improved communication among GOS entities including UNISWA, and between the GOS and the private sector.

The EOPS for Phase II were as follows:

a. Four or more market led, self sustaining, vertically integrated Swazi companies marketing horticultural and specialty crops produced by small-scale growers, providing technical

assistance for production and post harvest activities in response to market signals, and accessing domestic, regional and other export markets.

b. At least 135 small farmers trained and producing in quantities sufficient for efficient post-harvest handling and marketing, and meeting the quality and timeliness requirements of targeted markets

c. Cash income of participating farmers increased from E3,000 or less up to E14,000 as a result of improved product quality, production timing, higher yields, multiple cropping where feasible, crop programming in response to market demand, and other project related factors.

d. Improved understanding by both the private sector and the GOS of the policy environment and support systems that stimulate commercial agriculture in Swaziland.

The EOPS were modified with the project amendment for Phase III, to reflect the shift in focus. In addition, mid-way through this phase, numeric targets were adjust to more realistic levels. A further modification to item four in the EOPS was made in a later amendment. Final EOPS were as follows:

a. At least two farmer organization businesses effectively managing the production, grading, packing, and marketing of horticultural crops. (This originally read three farmer organizations, but due to the mutually agreed withdrawal from the Vuvulane Irrigated Farms area was revised.)

b. 150 farmers on 120 Ha are capable of producing horticultural crops to meet market demand. (This was also adjusted from 230 farmers and 220 Ha for the as stated above.)

c. Annual net income per hectare of participating farmers increased from about E4500 to E8000 through increased yields and improved returns from marketing of two crops per year.

d. In 1995, the total value of CAPM farmer produce exported to regional markets reaches E650,000; though domestic markets about E600,000. (This originally read E1,300,000 and E252,000 respectively)

3. Project Outputs

Outputs were adjusted at the end of Phase II to match the revised project strategy and based on findings of an Interim Assessment of the project made in September 1993. The outputs for Phase III were:

a. One hundred fifty farmers educated in the functions of FO's and in the role of individual members.

b. Five to ten leaders in each project assisted FO will be selected and trained in organizational skills and business management of produce assembling, packing and marketing of horticultural crops.

c. Two packing businesses are in operation with the capability to assemble and prepare small farm horticultural produce for domestic and regional markets.

d. At each FO a labour force is trained in skills for packing horticultural produce for domestic and regional markets.

e. Trained managers are working at two FO packing houses.

f. One hundred fifty farmers trained in production of commercial quality and quantity of horticultural crops.

g. Secure system(s) for collecting produce payments from marketers and distributing payments to farmers are established.

h. Reliable system(s) for producers to source inputs for production of commercial horticultural crops are developed.

I. Reliable system(s) for transport of produce from field to packing houses and packing houses to markets are in place.

j. Reliable system(s) for FO's to source materials and supplies for packing produce are developed.

k. Secure system(s) for managing FO supplies and materials; physical assets and financial affairs are established.

l. System(s) for packing house managers to acquire timely market information for produce demand and prices are developed.

4. Project History

Although the project had a six year life span, in practical terms it was much like three separate two year projects. The focus was adjusted for each of the three phases and the project team experienced considerable change for each period. Unique constraints to achievement of project objectives were presented by this approach.

a. Phase I

The original CAPM Project Paper was signed in August 1988, calling for a three year project life. Four long-term advisors formed the project team, working within the Ministries of Agriculture and Cooperatives, Economic Planning and Development, and the University of Swaziland. The mandate was broad with a stated objective to "carry out a series of action oriented analyses and GOS/private sector support activities in policy and program identification analysis and development; private sector opportunity identification analysis and development; and government and private sector institutional capacity strengthening". Outputs were to be achieved through GOS agencies and the agricultural college of the University. In less than two years in was concluded by USAID that "a more streamlined, action-oriented approach with direct interventions providing technical assistance in field production and marketing of small farm agricultural crops is needed to stimulate commercialization". Seven EOPS were listed for Phase I, which, to use the words from the Project Paper Amendment creating Phase II, were "... disparate and hard to quantify". For the make-up of the technical assistance team see Annex A.

b. Phase II

In late 1992 the project was amended, changing the focus and extending the PACD to February 1994. This changed the project from having a broad, loosely defined approach to a hands-on approach providing intense technical assistance to small-scale farmers and private marketing firms. The intent was to promote commercial agricultural production through a vertically integrated approach, linking marketing firms with small- scale farmers. Private marketing firms were provided with technical support and encouraged to source fresh vegetables from local farmers, do the required handling of the produce, and market the product. Farmers received direct, intervention through a

system of programmed production and intense production advise and training in the production of selected crops that were to be sold by the marketing firms. Local, regional, and export markets were targeted. A series of production and marketing trails were conducted to assist in identifying niche markets.

Long term technical positions were changed to include in addition to a Chief of Party, a Horticultural Specialist, Marketing Advisor, Production Advisor, and four Field Assistants. Mid-way in this Phase a second LTTA position added, providing for an Agribusiness Advisor (see Annex A).

c. Phase III

Slow and limited progress towards achievement of project goals led to a second redirection of the project. In February 1994, a project amendment extended the project for a 22 month period and again redirected the focus. Later a "no-cost extension" moved the PACD to 31 May 1996, with the Chemonics contract ending 31 March 1996.

Due largely to the unwillingness/inability of marketing firms to link with the small-scale farmer and a strong desire by farmers to have more involvement in marketing activities, Phase III focused on development of farmer organizations. Successes during the previous phase with production related target, mainly the ability and willingness of farmers to produce the necessary quality and quantity of produce. The Project Paper amendment stated, "... the capability of small farmer organizations will be developed ... to organize and expand production, and to manage the business of packing and marketing of horticultural produce". The project focused on the formation of farmer organizations that would program production for members, collect and assemble, grade and pack, and market the produce. Packsheds were to be established, staff trained in the operation of the sheds, and assistance provided in business management. This was to be achieved through technical assistance and training and a modest amount of commodities provided for the packsheds.

EOPS and project outputs were accordingly revised as previously stated. The redirection led to a restructuring of the LT expatriate staff and some changes in locally hired senior staff positions. Positions were COP/Horticultural Specialist, Farmer Organization Specialist, Marketing Specialist, and two local hire Area Coordinators (Annex A). Field Assistants were still remained as used in Phase II. In total, three of the five top-level positions changed at the beginning of this phase.

B. Current Status of Project

The Hhohho Fruit and Vegetables Marketing Cooperative Society (HFV) in the Northern RDA and the Khulumela Kwenta Vegetable Growers Cooperative Society (KK) in Siphofaneni/Sithobela were formed during Phase III. The two are currently at different stages of development and while most project outputs and EOPS pertaining to their development have been met, neither are considered to be mature enough to continue without some outside assistance. Farmers have moved successfully to a commercial level as producers in both their attitudes and abilities to produce.

1. Technical

a. Farmer Organizations

Both HFV and KK cooperatives are fully registered in accordance with the Swaziland Co-operative Societies Act of 1964. Each began under the guidance of an interim committee and since registration both have held annual general meetings at which committee members were elected by the membership at large. Both have formulated and adopted by-laws which defining the operations of the organization and these have been approved and accepted by the Cooperatives

Section of MOAC. Members were educated in the by-laws and in the general governance of their cooperative.

Considerable training, both formal and hands-on, have been provided to the members of the two cooperatives. Table 1 (and Figures 1-3) summarizes training events held over the past three years, which included topics ranging from general functions of the cooperative to specific topic such as marketing considerations. The project team developed overall training plans; however, many individuals and institutions, including MOAC, NAMB, and industry representatives assisted in the actual training.

A third cooperative was to have been developed with farmers at the Vuvulane Irrigated Farms. This effort was terminated in mid-1994, by mutual agreement of the involved parties. Factors contributing to this decision included: lack of interest and commitment amongst a sufficient number farmers, internal conflicts within an existing farmer cooperative formed primarily for sugar cane production within the area, and a lack of good, irrigated soils for vegetables.

Hhohho Fruit and Vegetable Growers

The limited membership of this cooperative has shown strong interest in their society, and both the interim and current committees have been very receptive to training and advise provided by the project team. The cooperative, however, is in an infant stage of development, and will require limited financial assistance to continue. The manager placed in the packshed by the project (with agreement of the interim cooperative committee) when it first opened was later hired by the cooperative. Since that time the current committee, after discussion with the project advisors, terminated the services of the manager due primarily to the failure to develop a satisfactory working relationship between the two parties. By the end of the project, interviews with candidates for the position were completed and the process of hiring a new manager was underway. The project during the past year provided a 50 percent subsidy for the salaries of employees (manager, bookkeeper, driver, and night guard) hired by the cooperative. The current low balance of funds available to HFV will make it difficult for the cooperative to pay salaries at the beginning of the upcoming winter production season after CAPM support ends.

Considerable technical assistance will be necessary for several additional seasons to assist in the continued growth and development of the cooperative and the sustainability of their business. Membership growth has been steady, but slow due largely to negative experiences farmers had with marketing firms during Phase II and community politics. The formation of the cooperative and the positive efforts of the project during the past two years, including the moving of the packshed, have overcome much of the problems. However, some farmers appear to have taken a wait and see attitude.

Because of the relatively few farmers, small size production areas (approximately 0.7 Ha/farmer), and tradition of farmers to be seasonal (winter) in their commercial vegetable production, produce through the packshed has generated limited earnings to the cooperative. This is expected to steadily improve, provided the support previously mentioned is forthcoming, and the farmers can continue to work together cohesively while making a profitable return on their efforts. Financial statements for the years 1994 and 1995 are shown in Tables 8 through 11 (Annex C). Selected information for HFV is listed below:

- Membership - 47
- Number of committee members - 7
- Management - currently without full-time manager, first manager was released in November, now in process of hiring new manager

- Bookkeeping - full time bookkeeper with limited training
- Other employees - driver, sales clerk, night watchman, 3 - 6 graders and packers as needed
- Adopted policy statements - including personnel, lug box, trade, and transport.

Khulumela Kwenta Vegetable Growers

Members have considerably larger land areas under production and have a greater tendency to concentrate full-time on vegetable production activities than is so for HFV cooperative. This coupled with a steady growth in membership has led to a rapid increase in gross sales by the cooperative and places it in a potentially strong financial position. Gross sales for 1995, exceeded one million Emalangeni (approximately $280,000), the projected break even point for the cooperative. However, the cooperative had a net loss of approximately E43,000, due primarily to poor management decisions and a failure to follow policies. Poor business management, a lack of openness and transparency by the committee, plus division within the membership are the greatest weakness and threat to the cooperative.

Divisions within the membership have been present since nearly the beginning of the cooperative in 1994. The current chairman, the same individual who chaired the interim committee, demonstrates a high degree of interest in the cooperative but is aggressive and domineering. Decisions affecting the cooperative are often made by the chairman, with the confidence of only one or two others. Opinions and advise of others is generally not sought and usually scorned if given. Although operational polices have been adopted, these are seldom followed and the chairman generally performs the function of manager. The advise and support of project advisors is often not considered. Through continual efforts, the general membership is now aware of their rights and responsibilities are demonstrating a desire to force the committee to fully represent their interest. The MOAC Cooperative appointed a Commission of Inquiry in mid-March to investigate the problems. This, if conducted properly, should help considerably in resolving the internal conflict within the organization. The Commission, made up of MOAC officers not involved with KK, will interview as many farmers as possible and make recommendations to the committee in April 1996.

Financial statements for 1994 and 1995 can be seen in Tables 14 through 17 (Annex D). Selected information for KK is listed below:

- Membership - 83
- Number of committee members - 7
- Management - full-time manager since June 1995
- Bookkeeping - full time bookkeeper since early 1995, assistant bookkeeper
- Other employees - driver, sales clerk, night watchman, 3 - 6 graders and packers as needed
- Adopted policy statements - the 12 policies are included in Policies, Job Descriptions, and By-laws for KK.

b. Production

A core group of trained, motivated farmers exist who are capable of producing quality vegetable in significant quantities. Currently a total of 130 farmers are members of the two existing cooperatives, with a combined area of 298 Ha for irrigated production. During the four years of Phases II and III, more than 320 farmers have received training and have been involved in programmed production. Approximately 150 of this group are located within the area served by the HFV cooperative. An additional 74 are located at Vuvulane Irrigated Farms and the Embekelweni Irrigation scheme. (During Phase II the project provided production and marketing assistance to the Embekelweni farmers but due to the focus on farmer organizations in the last two years this support

was scaled-down.) A group of 98 farmers trained by the project are in the area served by the KK cooperative.

During the past four years farmers received concentrated training through field days, workshops, and one-on-one field visits. All aspects of production were covered, with a high degree of emphasis on disease and insect control, including pesticide safety. Production suggestions were developed and refined during the course of the project and produced in written form. A Vegetable Production Guide for Swaziland has been written and published by the project, leaving behind a guide that will be relevant and useful to a wide range of farmers and those providing advise to farmers. The guide is an update to the horticultural section of the Farmers Handbook originating from the SCSRET project but has been expanded considerable to include additional information. A system for programming production is in place. This is primarily done using computer spread sheets. Several examples of these are in Annex E and include an example of planting schedules showing: 1) proposed planting dates and area to be planted for individual farmers; 2) the area that was actually planted compared to the proposed area; 3) projected output for each crop, based on area planted using an average expected yield per ha.; and 4) harvest projections, incuding harvest date and yield estimates based on actual field assessments.

Project Field Assistant who visited farmers regularly to monitor and advise on production were given extensive training. Linkages were established with horticultural extension officers, and they were included in many formal training sessions. A government extension officer is assigned to each of the two areas in which the cooperatives are located and have been involved with farmer visits for the past two years.

Linkages have also been built with local and some regional input suppliers. All required chemicals and other inputs for production are readily available locally. A local privately operated seedling nursery has been involved in supplying seedling to farmers. Each of the cooperatives have been directly involved in sourcing the necessary inputs and both packshed are engaged in sourcing and selling inputs to farmers as a service and profit making venture.

Net annual income per farmer has averaged more than E15,000 for the past two years, over both cooperatives. For the KK cooperative alone this figure is E21,600. Table 2 and Figure 4 provide a summary of farmer incomes. Through training and support provided by the project, farmers have steadily improved in production and have become true commercial farmers. This fact alone will likely ensure that they will continue to produce in the future, regardless of the fate of the cooperatives.

c. Packsheds

Both cooperatives have functional packsheds that are equipped with a grading line. Small sorting tables are available for preparing smaller size packages, various scales, hand strapping tools, and staplers. Equipment for bulk handling of produce includes, pallet jack, hand truck, and various types of boxes and crates for field harvesting. Tables 12 and 18 (Annex C and D) list the inventory for each shed. Both sheds are currently being equipped with cool rooms, the KK shed will have two units 3.5 x 3.5m, which will provide flexibility in selecting different storage temperatures for selected produce. The HFV shed will have one cool room that is 4.5 x 5m in size. Offices furnished with file cabinets and desks are in each shed. Both offices also have telephones and fax machines, calculators and computer and printer. Sewer, water and electricity are provided at both locations.

The HFV shed, a 10 x 32m structure completed in 1995, is 6 km from the Matsamo border gate with South Africa. From this point Nelspruit, with a active wholesale market for fruits and vegetables, is slightly more than one hour away. A major market outlet in Mozambique is about the same distance from the packshed. The local wholesale market (Encabeni) operated by

NAMB is also within 1.5 hours of the shed. The shed is located adjacent to a tarmac road, is easily accessible to local traders, and within approximately 15 km of the production fields of most members. The shed is located on SNL land assigned to the cooperative by four local chiefs. Security fencing materials have been provided to the cooperative and will be erected as soon as local traditional authorities define the exact boundaries of the plot.

The KK packshed is located in a building transferred to the cooperative by local government authorities and the MOAC. The shed was renovated during the first year of Phase III and contains a packing floor, storage, and office space. The cooperative is currently planning to add a 6 x 10m extension to the shed to provide extra space for handling of produce and storage. Most materials for the extension have been provided by the project and the cooperative members will provide labour and GOS a builder. The shed is located next to a tarmac road in a busy community with considerable bus traffic and other activity. The Encabeni fresh produce market is about one hour from the shed and retail outlets in two major urban areas of Swaziland are about the same distance. From the pack house a direct route exists to Durban, a major outlet for produce sold during the last four years. The shed is surrounded by a security fence.

Full-time staff at each pack house have been trained in receiving, grading, packing, and handling of fresh produce. Each packshed sells inputs to members and the public. Policies defining operations of the sheds have been adopted and a four volume manual (see Annex B for titles) covering all aspects of the operations has been produced and reviewed with each cooperative.

d. Marketing

Both cooperatives are currently selling to a well diverse range of markets. HFV cooperative marketed approximately 132 tons of produce in 1995. This was sold to several local wholesale agents, various local retail outlets, local vendors, one large consignment market in South Africa, and the Swaziland Fresh Produce Market at Encabeni, the primary outlet. The KK cooperative sold more than 1,027 tons of fresh produce to 25 different buyers in 1995. Buyers involved, with percentage of total sales value shown in parenthesis, were: speculator buyers from Durban (27.8); two agents at the Swaziland Fresh Produce Market (29.9); sales at the packshed, mostly to local vendors (38.4); local retail outlets (3.6); municipal markets in South Africa, and a small local processing operation (0.3).

Each cooperative has staff and committee trained in the various aspects of marketing. They are capable to negotiate sales with agents and have access to up-dated pricing information.

2. Procurement

During the second phase, the project, in conjunction with the USAID sponsored linkage between the University of Swaziland (UNISWA) and Ohio State University, was charged to procure equipment for the Faculty of Agricultural of UNISWA. This included special equipment relating to the establishment of a horticultural program and other items. This was completed as scheduled. Other than this, procurement of commodities was not a major part of project activities, except as it related to the development and equipping of packshed for the two cooperatives.

C. Project Accomplishments

1. Conditions at the Beginning

Production of vegetables in the country at the beginning of the project was limited and mostly of unreliable quality and quantity. Only a hand-full of farmers could be considered commercial vegetable growers, these mostly being relatively large-scale. Limited production support, especially to

SNL farmers, and unreliable markets were a major constraint and farmers were ill prepared to compete with the better positioned farmers in South Africa.

Production followed a strong seasonal pattern, with winter being the major period for production. During the summer season, small-scale farmers focused attention on production of subsistence crops. In addition, frequent and heavy summer rainfall and high temperatures make production more difficult, due to increased pest pressure and other production problems. Management during this period must be intense and follow a well planned schedule, if success is to be achieved.

Many farmers, especially those on Swazi Nation Land (a traditional land tenure system under the control of local chiefs) lacked the knowledge, skills, and attitude to be successful commercial producers of most horticultural crops. Government extension service lacked the manpower and commitment to provide farmers with the necessary production support, and information from private sector sources were often mixed and biased.

The small-scale farmer lacked the necessary mental attitude for commercial production. Few were willing to make the required commitment to be full-time farmers. Most vegetable growers produced as a part-time enterprise, not realizing the profit potential that vegetables offered. Costs of the necessary inputs, such as seeds, fertilizers and insecticides, to begin production are relatively costly and most farmers were not able to obtain credit to finance these. Banks were unwilling to lend for commercial farming because of past poor experiences in repayment. Required inputs were generally available if the farmer had the cash.

Marketing was considered by many to be a major constrain to commercial farming of perishable crops. The Swaziland Fresh Produce Market, opened in 1987 to provide local farmers with a viable marketing system for fruits and vegetables, did not have the confidence of farmers, due partly to inconsistent performance. Because the market could not source a reliable and consistent supply locally, as much as 90 percent of the fresh vegetables sold were imported from South Africa. The situation was complicated by the fact that agents at the market purchased imported produce on a wholesale basis but consigned produce from local producers. It can be easily understood that imported produce was sold before that on consignment. Local traditional markets, located in most towns, were supplied by local vendors who purchased at the farm gate and delivered to the markets. Due to the scattered nature of local production and the unreliability of supply at any given time, vendors preferred to purchase from larger, more reliable farmers in South Africa.

Speculator buyers, especially from the Durban region, made regular trips to the northern region of Swaziland to buy mostly tomatoes in winter. Production was not coordinated and individual farmers had little bargaining power or marketing skills. Prices paid by speculators generally were low, as much as 100 percent less than those paid to South African farmers for the similar quality product. To make matters worse the buyers would at time make commitments and later not come to buy the product.

2. Changes in Design

As noted previously the project underwent two redirection's during it's life. The strategy for the first phase of the project followed an analytical approach designed to stimulate commercial agriculture through a study of policies, constraints, and opportunities. Outputs included: analysis of GOS policy and program, private sector development, capacity strengthening of GOS and the private sector, and strategy and plans. Study analyses conducted (see Annex B for a listing of project reports) supported a more action oriented approach.

In September 1991, an amendment to the project resulted in a strategy change aimed at achievement of tangible increases in commercial production and marketing. The focus was on direct interventions with farmers, providing them with technical support to stimulate and improve production

of horticultural crops (primarily vegetables) and private marketing firms, to assist them in marketing especially the small-scale farmer's produce through domestic, regional, and export markets and investigations into supplying selected product to niche markets. This was to occur through a vertically coordinated approach in which the marketing firms would eventually support the production of the small-scale farmers and source a significant volume of the market product from them. The first year of this approach revealed that the selected firms were not able or interested to develop in a vertically integrated manner, partly because it was more efficient for them to carry-on with sourcing of produce from South African markets and because they were undercapitalized. Unfavorable weather conditions during the first year also affected production by target farmers.

The amendment to the project in February 1994, built on the successes the project had achieved in the production area and the objective was revised, "... the capability of small farmer organizations will be developed ... to organize and expand production, and to manage the business of packing and marketing horticultural produce" (Project Paper Amendment II, February 1994).

3. Constraints

The project faced several constraints that hampered progress, both of an external and internal nature.

The most serious were those related to changing focus of the project, which as previously noted had the effect of creating three separate, but related, projects. This, while essential to take advantage of lessons learned along the way, did not allow sufficient time to fully develop the final project focus.

This was especially true for the final phase, which had become well focused and had gained considerable experience after more than one year of implementation. However, two years to develop mature, sustainable small-scale farmer cooperatives is not sufficient time, a conclusion reached by the recent external review of the project. Considering the magnitude of the tasks to be done in establishing cooperatives and packshed, with the need to train farmers in the functioning of the cooperatives and business management, including the development of the necessary attitudes by farmers, the time was much too short. The short time period not only restricted the necessary growth and development of the cooperative but forced the project team to take short cuts in organizing the cooperatives and training the members, which lead to difficulties along the way.

The changes in focus of the project were accompanied by changes in the make-up of the project team. This presented a constraint in the development of a cohesive and unified team, so important in success of a development project of this nature. At the beginning of each Phase there were major changes to the team, resulting in loss of historical perspective and understanding of long term implementation strategies. Between Phases II and III, three of the five senior positions were changed, including two out of three long-term technical advisors. As a further complication, the new team members were not on-board until the project was at least two months into Phase III, due to delays in getting the project amendment signed. During the bridge period between Phases II and III, the team had to move forward with plans to establish the farmer cooperatives, prepare packsheds, and plan production for the 1994 winter season which was already underway. Because these activities were started before the team was involved, team building was a difficult process and this was presented difficulties during the remainder of Phase III.

A second serious constraint to progress was created by a lack of cooperation and understanding between the CAPM advisors and the MOAC field officers in both the Cooperatives and Crop Production sections. Efforts to establish and register the two cooperatives and train the members were many times hindered by the MOAC field officers in the Lobombo District, at times the officers reportedly advised the committee to ignore advise of CAPM advisors. The registration process took nearly one year to complete, with full cooperation this should have been completed in several months.

The first Annual General Meeting and election of committee members was delayed by six months after registration, due to Cooperative Section field officers refusing to schedule the meeting. This lack of cooperation created division within the membership of the cooperative, which continues today.

The conflicts were early reported by the project to officials within the MOAC. While the officials were cooperative in trying to resolve the problems, likely too little was done too late. It is ironic that only during the last three weeks of the project a Commission of Inquiry was appointed by the MOAC to investigate divisions and problems within the KK cooperative.

A major drought affecting the entire region had serious implications to farmer production during the first year of Phase II. Many project related farmers were without water during the 1992 winter season. As a result production targets could not be met, which seriously affected market arrangement that had be made and the growth of the marketing firms the project was assisting. This constraint was recognized and was a major consideration in extending the project into Phase III.

4. Phases I and II

During Phase I, various studies, training events, and observational tours were undertaken. Numerous studies were made on different components necessary for commercial agriculture to succeed, including small-farmer credit, agribusiness credit, investment criteria, marketing information, training needs assessment, and export opportunities.

Observational tours for private sector players and relevant institution officials went to Egypt, Kenya, South Africa, United Kingdom, and the United States, covering topics such as credit and input supply for small-scale farmers, current production and dehydration processes, and market research. A total of 62 individuals participated in these tours.

In-country and out-of-country training programs were initiated to cover topics such as: financial management, export marketing, fertilizer and irrigation technology, and on-farm water management.

Major achievements during the second phase related to production improvements with selected farmers. Production methods appropriated to the small-scale commercial farmer were refined and extensive training conducted for farmers. CAPM Field Assistants were trained to provide intense production support to farmers and through these combined efforts average yields per farmer increased by 200 to 300 percent. Farmers also demonstrated the ability to produce the required quality necessary for competing in the regional markets. Various production and marketing trails were conducted to identify niche markets and linkages were established with domestic and regional markets.

The primary CAPM Baseline study and the Institutional Baseline study were completed and released to both public and private sector organizations. A review of MOAC strategy, with special emphasis being placed on current commercial crop production strategies, was conducted by a short-term CAPM policy analyst. Reports of the individual studies and tours were prepared by LT team members and the various STTA's involved during Phase I, a list of these are in Annex B.

A summary including a numerical analysis of the achievements with regards to the outputs for Phase II can be seen in Table 3.

5. Major Accomplishments

Accomplishments listed here are a culmination of project made efforts during the entire project period. However, due to the applications of lessons learned during the first four years, which

resulted in refinements of the approach and implementation strategies, most of the accomplishment were achieved during the last two years.

The EOPS for Phase III have essentially all been met. To promote readability, accomplishments will be discussed under the headings used in the Plan of Work for Phase III. These will discussed under the appropriate headings.

a. Farmer Organizations

As the project progressed and was redesigned, EOP's and Outputs were redefined and the achievements list below are a results of that focus during the final two years of the project.

- Two farmer cooperatives have been formed, by-laws developed and approved, and the cooperatives legally registered.
- Both cooperative have held their first annual general meeting and election of committee.
- Operational Manuals have been prepared for each cooperative and discussed with committees. The manual consists of five documents: a Quick Reference Guide; Job Descriptions, Policies, and By-laws; Packhouse Guide; Marketing Guide, and Bookeeping Guide.
- Operational policies have been developed and adopted by each cooperative (see Policies, Bylaws, and Job Descriptions manual).
- Committee members of each cooperative have received many hours of training in their roles and functions (see Table 1).
- General membership of each cooperative has been trained in their rights and responsibilities (see Table 1).
- Each cooperative has employed a manager and bookkeeping staff, plus various other supporting staff. Job descriptions exist (see Policies, By-laws, and Job Descriptions manual) for all employees and they have received extensive training by project advisors.
- Each cooperative has operated during the past two seasons by management of the committee and hired managers. During the evolutionary period for packshed operational procedures, project advisor were heavily involved in management activities. This was gradually lessened to the current level.
- Record keeping systems are in place for each cooperative. Accounts have been audited by external auditors the past two years. HFV has shown an unaudited profit of E6,105 for 1995 with subsidization by the project; KK has shown an unaudited loss of E43,719 with limited financial support by the project. The loss by KK was partly due to poor management decisions by the cooperative committee and a failure to follow operational policies. The audit report also indicates that additional training in bookkeeping is required and that some changes to the system are necessary. Profit and loss statements for the two cooperatives are shown in Tables 8 to 11 and 14 to 17 (Annex C and D).
- One cooperative (KK) has achieved gross sales in 1995 of E1,054,729. This demonstrates the potential capability of small-scale farmer cooperative to contribute to the national economy.

- Each cooperative has an appropriate inventory of equipment necessary to perform the functions necessary to package and market fresh produce (see Table 12 and 18, Annex C and D). This equipment has been mostly provided through the project from USAID and GOS. Additional project equipment is to be transferred to the two cooperatives at the end of project.

b. Production

The project provided intense production support to farmers during Phases II and III. This included conducting production/marketing trials, developing and refining production recommendations, formal training of farmers through field days, work shops, one-on-one training of farmers though weekly visits to production fields, and establishment of linkages with organizations and private business who provide farmers casual production information. Farmers responded to this by dramatically increasing production of vegetables and by demonstrating that they could produce quality acceptable to the regional market. Specific achievements include:

- The project has worked with and trained 250 farmers who control more than 420 hectares of irrigated land (Tables 13 and 19, Annex C and D). Currently 130 of this group are members of the two cooperatives.

- Farmers have adopted a commercial attitude toward production, learning that when good production methods are followed, crops are produced according to the market's needs, and, if these are properly marketed, vegetable growing can be a viable primary source of income. More than 100 of the 250 farmers are engaged in full time vegetable production.

- Average annual income by participating farmers has increased by as much as four fold to E18,329 in 1994, and E11,832 in 1995. The lower income in 1995 reflects lower produce prices for the year. (see Table 2, Fig. 4).

- Average yield per hectare has significantly increased through project efforts. As and example, tomatoes yields increased from 10 t/Ha at the beginning of the project to more than 30 t/Ha.

- Production of fresh vegetables in Swaziland has become more reliable and increased dramatically since the beginning of the project. In 1995 tomato production by project farmers was 1,675 tons, compared to estimated total tomato production for the country in 1990 of 347 tons (Swaziland Annual Statistics Report and Table 4, Fig. 5-7).

- A functional system for programming production according to the needs of the market has been developed and refined during the last four years. Programming is done by means of a computer spread sheet which is with each farmer cooperative. Information collected by Field Assistants provides the necessary input to run the programs (see Annex E for examples of programming documents).

- A vegetable production guide for 22 crops (see Swaziland Vegetable Production Guide) has been produced, based on recommendations developed by the project. This was prepared with assistance from ST specialists and involvement by individuals from UNISWA and MOAC, the horticultural industry, and the Vegetable and Ornamental Research Institute in South Africa. Included in the guide is information on crop husbandry, production planning (including budgets), post harvest handling, marketing, and other special topics. This will serve as a guide for commercial vegetable producers in Swaziland, regardless of the scale of operation.

- Positive influence of the project has led to an increase in production of horticultural crops by larger-scale farmers in the area. At least 15 such farmers are currently producing vegetables and have received varying degrees of advice and encouragement by the project. Swazi Fruit Growers, a private company, has established a packshed within the past two years and both produces it's own vegetables and arranges for production by other farmers for export to Europe. The project provided advise for this effort.

- Farmers are now able to get credit from the Swaziland Development Bank (SDB) to finance production inputs. This came about by direct efforts of the project and through the stabilizing effect the project had on production. (SDB has recently experienced internal management problems which had at least a temporary affect on farmer loans. Approximately 20 farmers have received credit thus far in 1996.) In 1995, 64 farmers received credit (see Table 5, Fig. 8).

- A cadre of field advisors received intense training by widely recognized specialists through the efforts of the project. CAPM Field Assistants received extensive training in all aspects of vegetable production. MOAC extension officers were included in many of the training events (see Table 1).

- Linkages have been established with various local and regional groups that supply production information to farmers, in an effort to provide continuity and uniformity for advise farmers receive. Included are seeds companies (MayFord, Hygrotech), local chemical and machinery suppliers, MOAC and UNISWA, and the Vegetable and Ornamental Research Institute at Roodeplaat.

c. Packsheds

- Two packsheds were established, one for each of the two cooperatives. One of the sheds was relocated to a more favorable location for the standpoint of trading and access to utilities.

- Both sheds are equipped to receive, grade, package, and store fresh produce. Grading machines and cool rooms are included in each.

- Policies for receiving, handling, and making payments to farmers for produce delivered were developed and adopted by each cooperative.

- Both sheds were equipped with telephones and fax machines for communications with markets and to receive market information. However, problems with the telephone lines have made this only operational for short times.

- Staff hired by each cooperative for operating the packshed have been trained in handling fresh produce and other relevant procedures.

- Both sheds have bakkies (pick-up trucks) and a trailer for collecting fresh produce from member farmers. Other linkages have been established for hiring of additional transport as needed.

- Both sheds stock and sell farm inputs to members and the general public. Input sales comprised a significant amount of their gross sales in 1995.

- Both sheds have become established as sources of fresh produce for local traders and vendors, making it easier for this group to source locally grown produce.

d. Marketing

Working relationships with local and regional markets were expanded during Phase II, including both wholesale and retail outlets. Marketing firms that the project assisted during this period were linked with regional speculative buyers and municipal markets in Johannesburg and Pretoria, and the fresh produce market operated by NAMB in Swaziland. Marketing firms were also introduced to local retail outlets such as food stores and hotels. These linkages formed the basis for the marketing program that was established for the farmer cooperatives during Phase III. Annex F contains information on average monthly prices and volumes traded for selected commodities at the Encabeni market and a list of regional and local marketing contacts. Specific achievements include:

- A more competitive market was created for Swazi vegetable growers by introducing more buyers into the area. The number of speculator buyers coming from Durban increased from two to six during the period of the project.

- Prices received by farmers increased significantly during the period of the project. For example, average price paid for tomatoes by speculator buyers increased from 0.25 per kg in 1991 to 0.70 per kg in 1995.

- Committee members of the two cooperatives and the general membership were given more than 85 hours of training in marketing and quality control.

- Both cooperatives are able to sell produce through municipal markets in South Africa, key individuals from both groups have visited four such markets in Durban, Johannesburg, Nelspruit and Pretoria.

- The manager of KK cooperative has received intensive hands-on training in marketing, HFV is currently hiring a new manager. (see Table 1).

- Both packsheds have facilities and trained personnel to package produce into small-sized containers necessary to reach higher end markets. Sheds have been provided with several types of boxes to meet the requirements of various regional markets and training of staff in the packaging procedures has been done. Pilot efforts have been made to begin packaging in these, with shipments to several markets. Additional effort will be needed to fully implement this practice.

- Both packsheds have the capabilities to communicate regularly with local and regional markets and to receive daily market information.

- Both packsheds have established consistent sales with local vendors, many who previously traveled to South Africa for fresh produce. An estimated 38.4 percent of KK sales for 1995 were to vendors buying at the packshed.

- An auction type market for NAMB has been piloted weekly at the Encabeni market. Farmers and marketing firms provide produce for the market and various retail outlets, including market women from local markets, attend.

- Sales of selected commodities have been arranged for the KK cooperative to a regionally based firm, with outlets in Swaziland, exporting to Europe.

e. Other accomplishments

The project has had a positive influence on private sector agribusiness in general. The supporting industry for vegetable production has expanded during the life of the project,

both by direct and indirect influence. A prime example is the establishment of a seedling nursery which now supplies more than one million seedlings per month to local farmers. Prior to this all local seedling needs were sourced from nurseries in South Africa. The owner of the nursery was a member of an educational tour to the USA conducted by CAPM during Phase I, and received advice from CAPM advisors in planning and establishment of the nursery.

More than 25 farmers, small- and medium-scale, that are not directly involved with the two farmers cooperatives entered into commercial vegetable and fruit production with assistance from the project. This assistance was in the form of feasibility studies, securing credit, production advise, and/or linkage to markets. It is estimated that this involves a combined production area of approximately 100 Ha and an output of more than 2000 tons per annum. Other farmers, as a result of the achievements of the project with production and marketing, increased production of horticultural crops. While the project had no direct contact with this group the positive influence of the project was a factor. Public and private acknowledgment by farmers and the production figures shown in Table 4 and Figure 5 support this.

A privately owned production and marketing firm began operating in Swaziland in 1993, engaged in direct production of vegetables and in sourcing from local farmers for export to Europe. This firm sought and received support to do initial feasibility studies and since then has received assistance with production recommendations. The firm currently operates two packsheds and ships an average of 10 tons per week of more than 10 different vegetables.

Hard figures are not easily obtained to verify the extent of the CAPM influence on horticultural crop production and marketing activities in Swaziland. Figures 5 through 7 show that production by farmers in the two cooperatives occupied 98 Ha of the total 2,062 Ha of Individual Tenure Farms and Traditional Land Areas planted in the country, or 5 percent of the area. However, the total figure includes some relatively low valued crops (such as sweet potatoes) and production by several large estate farms. If one looks at the value of the production for the same year the CAPM related contribution is E1,210,591 compared to a total figure of E7,300,000. Thus the production by CAPM farmers accounts for 16 percent of the total, indicating the higher value of this production. At the very least this shows a significant portion of the production of high valued vegetable crops coming from a relatively few farmers.

NAMB figures for the past 5 years indicate only a modest net decrease in imports of fresh produce since the start of the project, taking into account the estimated 3 to 4 percent growth in per capita consumption during the same period. However, several considerations must be taken into account in interpreting these figures: 1) approximately 30 percent of the production by project farmers is sold through the Encabeni market, roughly 30 percent of the production was exported to regional markets and as much as 40 to 45 percent was sold directly to local retail outlets and vendors; 2) many of the "new" farmers referred to above sell only a fraction of their produce though NAMB; and 3) the production by the private firm exporting to Europe are not accounted for. This, estimated production figures from MOAC sources, word of mouth, and experience gained, indicates that production of fresh vegetables in the country has more than trebled during the period of the project.

A CAPM Working Group was established early in the project to function as an advisory board. The group included officials from the MOAC and key individuals from the private sector, including banking officers, and a lawyer, the chairperson of each of the two cooperatives, and CAPM techincal staff and USAID. During the last meeting it was decided that the group will continue to meet, using the same CAPM Working Group name.

D. Progress Towards Purpose

The purpose for project remained unchanged, "To establish an environment that is stimulating increases in small-scale commercial agricultural production, other agribusiness's, and domestic and export marketing". Married to this is the objective for Phase III, "...the capability of the small farmer organizations will be developed to organize and expand production, and to manage the business of packing and marketing of horticultural produce. To achieve this, inputs to farmer organizations will include training, technical assistance and a modest amount of commodities. In addition, technical assistance and training will be provided to small commercial farm operators in all aspects of commercial horticultural production". The CAPM team (for Phase III) was charged with being, "directly responsible for developing the capability of small farmers to produce commercial quality and quantities of horticultural crops; and for developing the capability of farmer organization businesses to assemble, grade, pack, and market horticultural crops raised by their members as well as other nearby farmers".

Based on the current status of the cooperatives and the collective capabilities of the members, plus the related gains in the private sector during the period of the project, the purpose for the project has been achieved, at least in a broad sense. The farmer organizations have received broad and in depth training, technical assistance, and have operational packshed. A small but significant group of small-scale farmers operate as commercial producers. The farmer organizations have the capacity to assemble, grade, pack and market horticultural crops grown by members.

The real question is, however, will all this be sustainable? The two farmer cooperative are still very immature. Achievement of nine out of ten of the EOPS laid out for the project may have little meaning in the practical world. A cooperative that is performing 75 percent or even 95 percent of the functions required to make itself sustainable may still doomed to failure unless it receives continued assistance. The needs of the two cooperatives are still very critical to survival: sound business management, time to develop fully the cooperative spirit. These will require unbiased, experienced technical advise to fully develop. It is unfortunate that the CAPM project is coming to an end at this particular stage of development for the two cooperatives. Hopefully, support from some source will be available to the two small-scale farmer production and marketing businesses to help them reach the point at which they will be able to survive on their own, and that in providing that support the lessons, experiences, and knowledge of the CAPM project will be applied. The CAPM project has contributed greatly toward this ultimate goal and must be credited with exploring new territory and testing and providing a model for further refinement.

E. Contributions To The Project

The Swaziland Recipient Contribution to the project for the period July 1, 1989 to March 31, 1996 was agreed to be the local currency equivalent of U.S. $3.633 million. The actual figure achieved was approximately U.S. $4.292 million. This exceeds the target amount by 18 percent.

The Recipient Contribution is made up from two primary sources, viz. the Swaziland Government (Grantee) and, the farmers/firms in kind contributions (Participants).

1. Grantee Contribution

The GOS contribution to the project represents approximately 23 percent of the total donor grant and is roughly 68 percent of the total required Recipient Contribution. The main areas of contribution have been in the amount of time allocated to counterpart contributions, the setting up and maintenance of various irrigation schemes, the UNISWA linkage program, and the amounts attributed to NAMB contributions. Other notable areas of contribution have been in the upgrading of packhouses, and the construction and maintenance of bridges and roads in the regions of the packhouses.The GOS contribution is made up as follows:

	US $
Personnel	660,014
Project Support	37,469
Travel	40,589
Training	52,050
Irrigation Rehabilitation	149,764
Furnishings, Lease & Maintenance	152,181
UNISWA, Greenhouse, Produce Store	455,663
NAMB	240,167
Overhead	660,014
Infrastructure	24,740
Sustainability Workshop	3,617
TOTAL	2,476,268

2. Participant Contribution

Participant contribution is primarily composed of the financial equivalent of the machinery, buildings, and other infrastructures used and the labour and training time committed by farmers and marketing firms during the life of the CAPM project. The Participant Contribution is made up as follows:

	US $
Production Inputs	430,464
Company Facilities	264,481
Farm Labour & Facilities	983,940
Packhouses	102,583
Training	7,572
Farmer Organizations	26,880
TOTAL	1,815,920

(See Table 19 for a more detailed breakdown of the Swaziland Recipient Contribution).

3. Donor Contribution

The total projected Donor Contribution (USAID) is made up as follows:

	US $
Technical Assistance	9,869,000
Grant to SBGT	100,000
Monitoring / Evaluation	771,000
Commodities	79,000
T.A. - Training	13,000
TOTAL	10,832,000

The CAPM budget as of 1 March 1996, shows a total budgeted amount of US $9,528,361 against an invoiced to date of $9,364,268, a projected remainder of $121,936 and an unprogrammed surplus balance of $42,156.

F. Lessons Learned

Experience with the CAPM project provides some information on what is effective and what is not effective in the promotion of small-scale commercial horticultural enterprises and the formation of cooperatives for developing farmers. Some of the lessons learned are of a general nature and may be

applicable to a broad range of similar applications, while others are more specific perhaps to this particular experience. The lessons learned are present below under the categories followed in implementation and as used throughout this report.

1. Farmer Organizations

- Adequate time must be allowed for the development and maturation of small-scale farmer organizations. This is definitely a long-term process which requires considerable training over an extended period, since changes in attitudes, perceptions, and thinking of individuals often need to occur. Expectations of members as to what is achievable and desirable and an understanding and acceptance of members rights and responsibilities must develop.

- Short cuts in the process of forming organizations should not be taken in order to save time, as the CAPM project had to do, due to the short period of time available. Basic training should be adequately done at the very beginning of such an undertaking to prevent misunderstandings and divisions from developing at a later stage. A minimum of four years is likely required to bring a diverse group of developing farmers together into a sustainable organization.

- Numbers of cooperatives members, especially during the formative period, is not as critical as the level of commitment by the members. In this regard it may be better to begin with fewer members who are committed, and later focus on numbers after the principals of operations have been established and demonstrated.

- Money and STTA can not substitute for time and the essential training that is required.

- Personal growth issues relating to social and cultural issues, especially as they relate to group dynamics, must be given adequate consideration at the beginning of the formation process for the organization.

- An adequate and appropriate recordkeeping system should be in place at the very start of a cooperative. Training of individuals in the use of the system should occur throughout the project period. Audits for 1995 were completed in March 1996, and revealed that there are inadequacies within the bookkeeping procedures being followed and within the system (especially with the KK Cooperative).This allows for concern about the handling of cooperative funds.

- The by-laws, policies, objectives and goals of the project must be clearly developed and understood by those involved. The organization must operate according to these.

- A clear and sensitive awareness of traditional culture and it's implications to commercial farming and farmer organization development.

- Training for membership, committee, and employees of the organization is essential and must be on-going, often repeating the same message. Roles of each group must be understood and accepted. The committee should direct the overall course of the business and the manager should be in charge of the daily operations.

- The development of a sustainable small-scale farmer cooperative engaged in programmed production and marketing of fresh produce requires careful and sound management from the outset. This likely will require heavy involvement by the project in actual management for the first one or two years. This was not possible with CAPM, due in part to the short time period, a desire by some individuals within one cooperative to make management decision

3. Packsheds

- A packshed must add value to the product delivered by farmers and be able to show farmers a definite financial advantage for using the shed, if the farmers are to be expected to support the shed. The packshed is more than a receiving depot.

- Although a minimum volume of product is required to cover packshed costs and meet the needs of selected markets, proper handling of the produce, adding value to it, marketing it well, and overall efficiency is more important to immature operations than volume. Consistency of supply is also paramount.

- Quality control is essential to provide a consistently marketable product that is acceptable to the target markets. Grade standards set by the market must be maintained and substandard product should not be accepted by the packshed.

- Packshed charges must be set realistically. Farmers need to pay for services provided and the shed must be able to provide the farmer with a fair and competitive return. However, packshed charges must not be set too high, covering inefficient and improper operations, any more than they dare be inadequate to cover legitimate costs.

- Field crates (plastic lug boxes) are attractive to farmers and provide an easy method of packaging. However, they are difficult to control and expensive to replace. An adequate system of control must be followed. It is advisable that individual farmers have their own crates for harvesting and delivery to the packshed. Buyers of bulk materials should likewise provide their on lug boxes.

- The hired manager must be in charge of packshed operations and not be interfered with by committee on general memberships in his daily routines.

- Some spoilage at the packshed is inevitable, perhaps in the range of 10 percent, and must be accepted. Efforts to reduce this loss must be reasonable and not hinder sale of higher grade product.

- Poor handling by farmers during and after harvest resulted in considerable loss of product.

- Sale of produce should remain the primary business of the cooperative, although sale of inputs can produce revenue and provide an important service to members, if properly managed.

4. Marketing

- It is difficult for farmers to accept that markets set price and other conditions, not the grower.

- Only relatively small volumes of most vegetable crops can be absorbed by the Swaziland markets. Large volumes must generally be sold outside the country.

- Both cooperatives must strive to expand the range of fresh produce they provide to broaden their market appeal.

- Both cooperatives need to accept that marketing is often expensive and be willing to provide product packaged to meet the demands of the market.

- Marketing by the cooperatives should develop in an evolutionary manner. Each cooperative began at an rudimentary level of production and marketing and are proceeding to more sophisticated level. This will take time and perseverance.

- There are various ways to market, each with it own positive and negative aspects. Each cooperative must continue their education and develop a marketing approach that is feasible and fits their requirements.

G. Summary

1. Impact

It seems fair to say that the CAPM project was the right project, in the right place, at the right time. It logically followed the Swaziland Cropping Systems Research and Extension Training project, in harmony with MOAC's interest in expanding production and marketing of horticultural crops. The project followed a logical progression through the changes in redirection to ultimately become sharply focused, providing intense and direct technical assistance at the point needed, the individual farmer. This resulted in tangible and meaningful achievements. The broad achievements - renewed and improved interest in vegetable production, expanded marketing opportunities, a stronger supporting industry - are widely recognized by most close to the project. The project enjoyed very positive reviews by farmers, individuals in the private business sector, and (unofficial) support of MOAC officers and administrators.

Phase III was too short to develop mature farmer organizations that can be expected to alone sustain the essential operations of their production, packaging, and marketing business in an efficient manner. To complete the process of development of a cooperative attitude, to reach the required level of business management skills, and to fine tune the packaging and marketing operations will require additional intense technical support. Without project influence and support the risk of failure for the cooperatives is high. Despite this a core group of farmers capable of commercial vegetable production will remain. They have realized the benefits of commercial vegetable production and developed the necessary skills, and will continue to produce. However, failure of the cooperatives may lead to farmers again selling to speculative buyers, at the farmer gate, and at a reduce price.

The project, with it's intense support ,has helped lead the way to the blossoming of a commercial horticultural production and marketing industry in Swaziland involving the individual farmer.

2. Recommendations

There are two separate areas of concern that require comments. The first deals with the financial status of KK and the bookkeeping records. The report for the audit for 1995 was received on 26 March 1996. The report indicates that proper bookkeeping procedure are not being followed and that the systems is not completely adequate. Not all payments made by the cooperative are supported by the required documentation. A random check revealed that 70 percent of the payments do not indicate the validity of the payment. Loans extended to members are not properly recorded or signed by the person receiving the loan. In at least one case a deposit to the bank does not show on a bank statement. These and other concerns, coupled with the losses incurred by the cooperative in 1995, make it essential to follow-up with a more in-depth investigation of the records. This should be done by the Cooperatives Section of the MOAC.

Secondly, a development project similar to CAPM makes a commitment and promise to the target group to achieve certain objectives. Unless the project is judged to be failing, due to poor design or implementation, everyone has the right to expect to reach the objectives. The CAPM project, judging from what has been achieved and the opinion of many of those associated directly and

indirectly with it, was well designed in Phase III and, at least, acceptable in implementation. It has not, however, by assessment of the recent external evaluation and others closely involved, reached the major objective - sustainable farmer cooperatives that are able to carry-on the business producing and marketing horticultural crops. This is true despite the project achieving most of the EOPS and outputs.

The project advisors firmly believe and are supported by most informed individuals who are close to the project, that the two cooperatives will require additional intense support for one or two more years before they are mature and able to function as a sustainable small-scale farmer cooperative. To stop support to the cooperatives at this premature time will lead to failure, or to put it another way, leave more 'rubble along the road to development'. There are several suggestions directly related to the recommendation for additional support for the two cooperatives:

- The level of support required could be slightly scaled-down from the level provided during the past four years. The minimum level should include two technical advisors to provide support in refinement of production, packshed operations, marketing, and most of all in the function of the cooperatives. The advisors should be cognizant of the source of the "growing pains" experienced to date and sensitive to the cultural factors involved. Two Field Assistants are important to continue to make contact with farmers and generate the necessary information required for programmed production. One local, experienced coordinator is also needed. Supporting staff (office) could be reduced considerably.

- Provide as much continuity with the current CAPM project as possible, make use of the knowledge, experience, and understanding of the issues gained by the CAPM team and, take advantage of team members still residing in Swaziland.

- Do not change the focus or implementation strategies of the project. As mentioned earlier, their is no set way to implement a project of this type, but to change now would have negative effects. Care should be taken to avoid starting a new project, with new advisors who "reinvent the wheel".

- Do not alter the overall objectives or approach, such as moving away from the farmers operating their own business of producing, packaging, and marketing their product. This would have the effect of sending the message that the project was a failure and the concept wrong.

- Fully develop the model begun under the current CAPM project so that it may be used for developing other farmer organizations.

- Prevent a gap in the support provided, especially since the two cooperative are already entering their major season when they will require good advise and limited financial support.

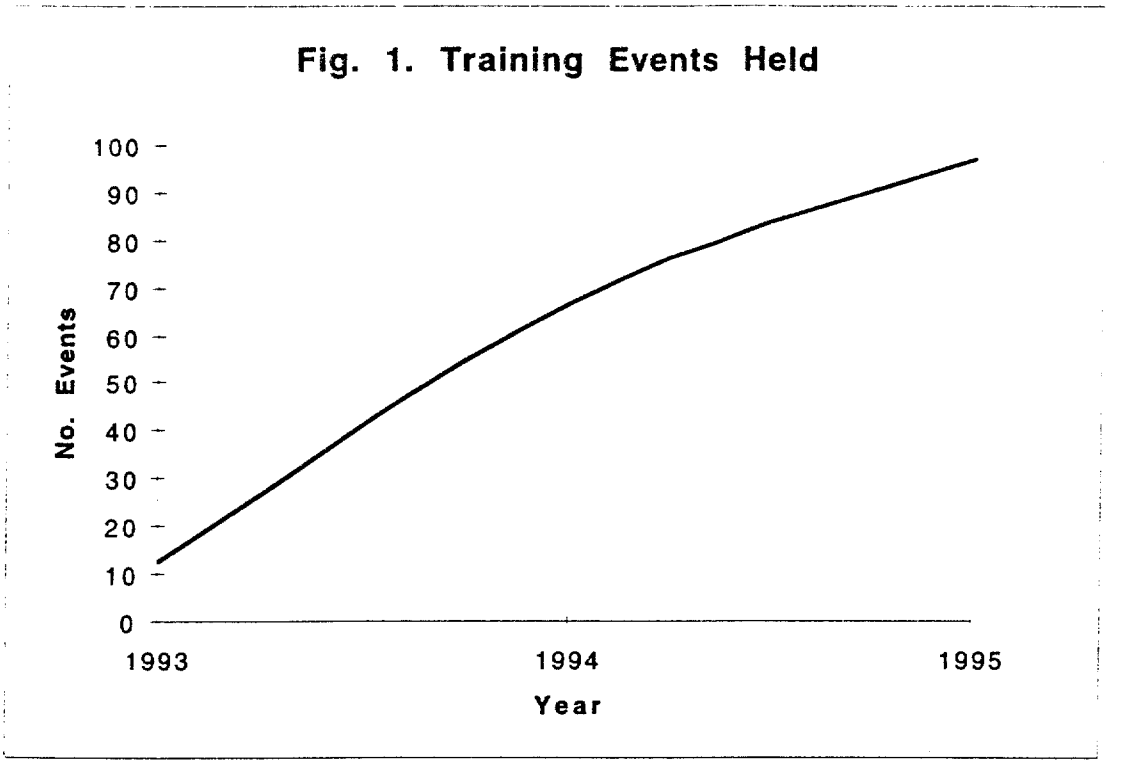
- The lessons learned clearly indicate that intense, focused technical support to the cooperatives and farmers leads to the achievements of the project. This kind of support is still required and will not be provided by public sector institutional services.

Some interest does appear to exist among the donor community and other key individuals. This should be openly and honestly explored as soon as possible. Hopefully, appropriate and adequate support will be provided to the two cooperatives quickly, without an extended break.

Table 1. Training summary showing the number of events, the number of hours, the hours of training by gender and total hours, by major categories and year for Phase III of the CAPM Project.

	Events	Hours	Male	Female	Total
1993 - Farmer Organizations					
Production	6	36	3168	2412	5580
Marketing & Quality Control	6	36	4140	1368	5508
Business Management					
Record Keeping	1	18	126	18	144
Subtotal	13	90	7434	3798	11232
1994 - Farmer Organizations	7	16	2160	432	2592
Production	10	20	1680	620	2300
Marketing & Quality Control	13	31	5084	3503	8587
Business Management	19	51	8568	2703	11271
Record Keeping	18	71	4544	2343	6887
Subtotal	67	189	22036	9601	31637
1995 - Farmer Organizations	9	36	5868	1044	6912
Production	8	38	5434	1976	7410
Marketing & Quality Control	4	20	980	620	1600
Business Management	4	13	663	26	689
Record Keeping	72	288	576	864	1440
Subtotal	97	395	13521	4530	18051
Grand Total	177	674	42991	17929	60920

Figures 1 and 2. Training events held and total hours training for CAPM Phase III.



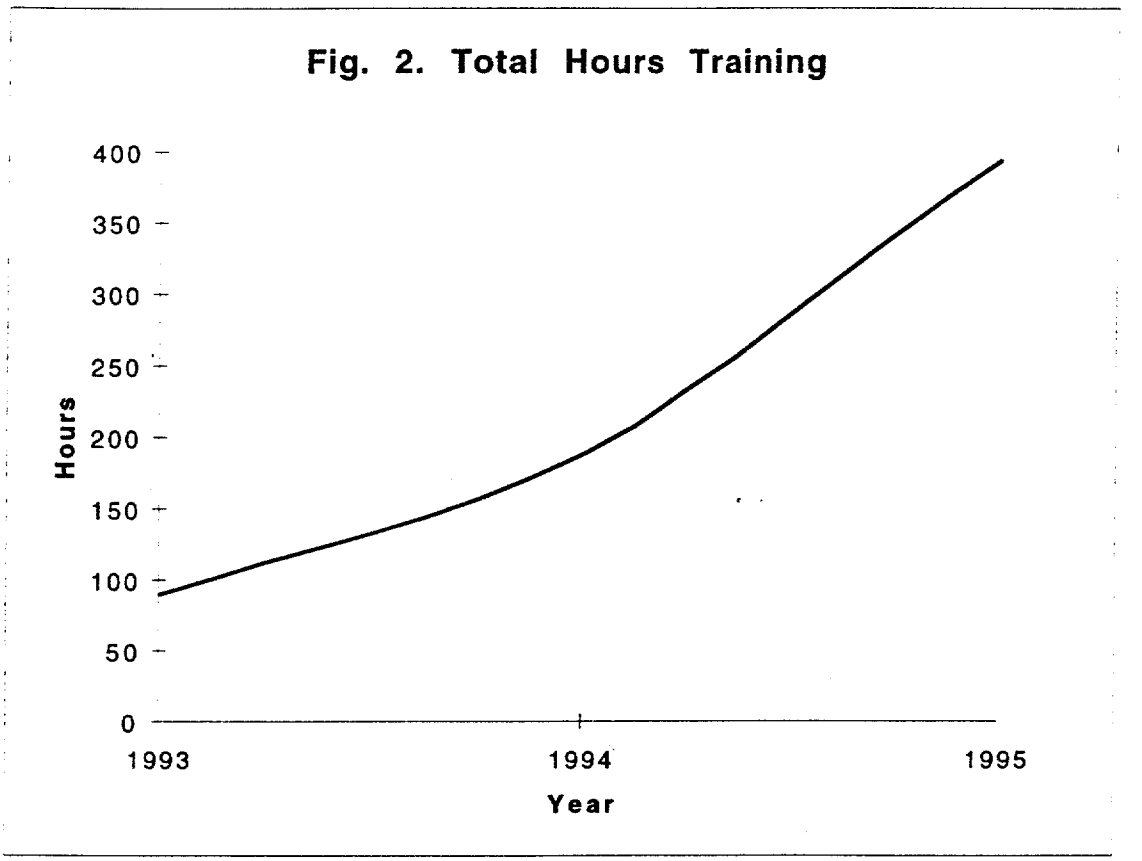


Figure 3. Person hours of training by year under CAPM Phase III.

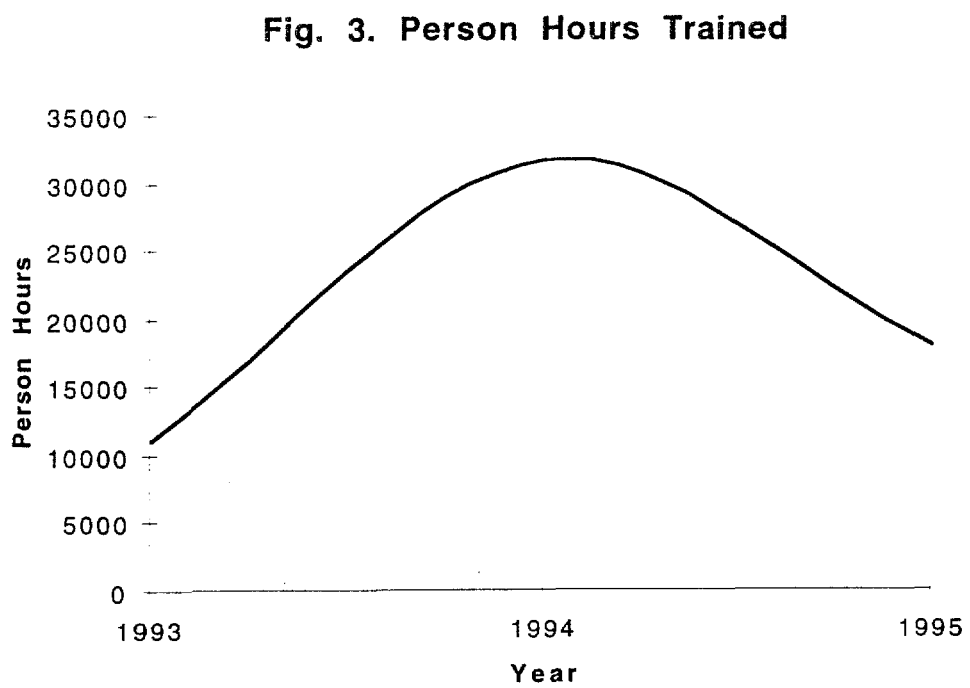
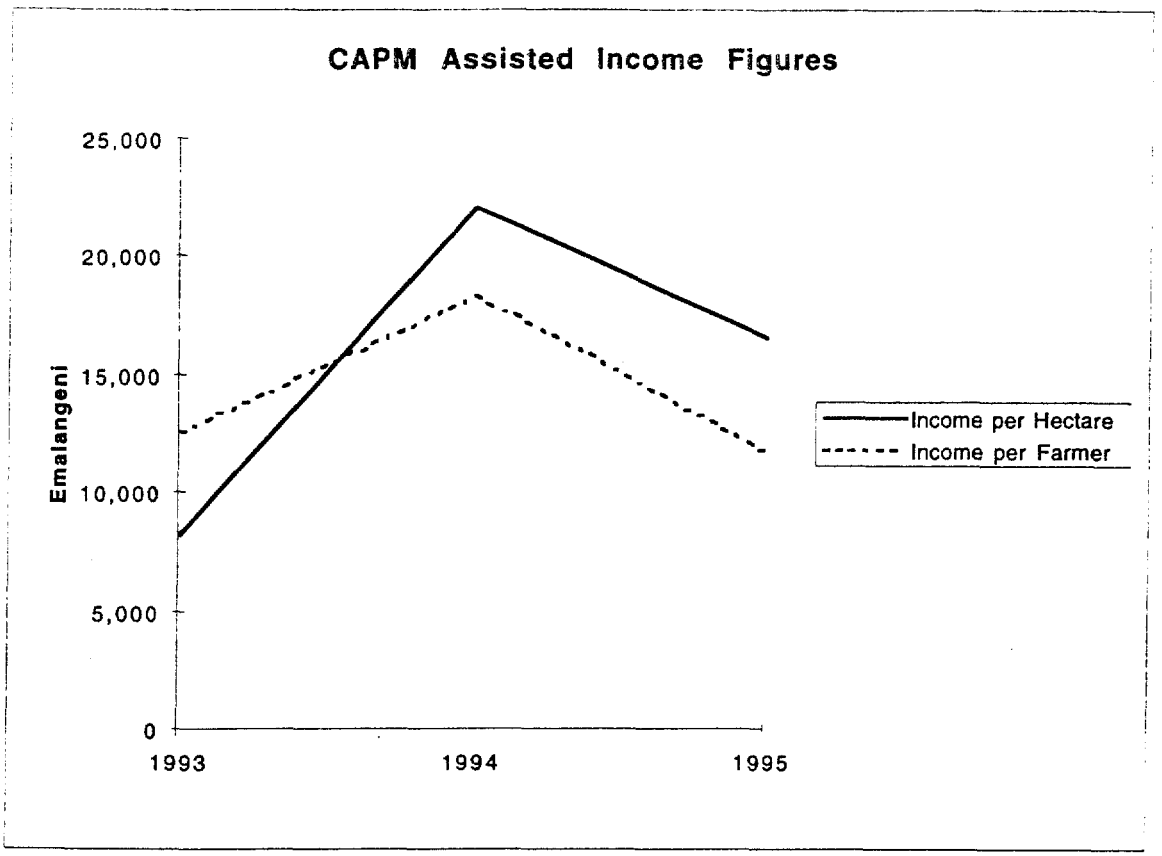


Table 2. CAPM Phase III Income Summary



	1993	1994	1995
Income per Hectare	8,206	22,163	16,603
Income per Farmer	12,581	18,329	11,832

Table 3. Outputs achieved for phase II of the CAPM project from 1 April 1992 to 31 March 1994.

	1/4/92 [a] to 30/9/92	1/10/92 to 31/3/93	1/4/93 to 30/9/93	1/10/93[b] to 31/3/94	Maximum or Total
A. Private Sector Development					
A1. Viable Opportunities identified for expanded or new private sector activities that stimulate increased commercial agricultural production.					
A2. At least 4 companies will use technical guidance in response to new opportunities, facilitating production and marketing of small farm produce with combined sales of E2.5 million by the end of the firs year following the redirection and extension, E3.8 million after the second year, and E4.4 million by the project end.	4 firms E191,668	5 firms E4,006,253 total E129,336 CAPM	2 firms E1,586,214 total E300,446 CAPM	1 firm E46,233 CAPM	5 firms E5,784,135 total E470,015 CAPM
A3. Production program implemented, 65 farmers by the firs year, 100 farmers by the second year and 135 farmers by the end of the project.	145 farmers	98 farmers 90 male 8 female	168 farmers 126 male 42 female	42 farmers 36 male 6 female	168 farmers 126 male 42 female
A4. Domestic Commercial sales of fresh produce by small-scale farmers assisted by CAPM increases to 1,500 MT by the end of the first year; 2,000 MT by the end of the second year; and 3,000 MT by the end of the project.	44.8 MT	170.65 MT CAPM 348 MT vendor	56.8 MT CAPM 337 MT vendor	189.9 MT CAPM 40 MT vendor	462.15 MT CAPM 725 MT vendor
A5. Regional export sales of fresh produce grown by small scale farmers increased to 900 MT by the end of the first year; 2,500 MT by the end of the second year; 3,000 MT by the end of the project.	262.6 MT	69.29 MT	641.5 MT	82.3 MT	1,055.69 MT

Table 3 Continued. Outputs achieved for phase II of the CAPM project from 1 April 1992 to 31 March 1994

	1/4/92 [a] to 30/9/92	**1/10/92 to 31/3/93**	**1/4/93 to 30/9/93**	**1/10/93[b] to 31/3/94**	**Maximum or Total**
A6. 20 Experimental shipments of specialty crops to oversees markets totaling approximately 20 MT originating from target group of farmers by the end of the project.	4 shipments 1 MT	25 shipments 16.3 MT			29 shipments 17.3 MT
A7. 16 Personnel trained in company management, marketing production, farm management, post-harvest technology and, field operations.	14 trained 30 hours	13 trained 324 hours	12 trained 512 hours		14 trained 866 hours
A8. 135 Farmers and 15 extension workers and field assistants trained in horticulture and specialty crop production and post-harvest handling with an emphasis on export quality, quality and dependability standards.	255 farmers 30 hours	287 farmers 201 male 86 female 17 extension 37 hours	155 farmers 88 male 67 female 9 extension 54 hours	388 farmers 209 male 129 female 39 extension 168 hours	388 farmers 209 male 129 female 39 extension 289 hours
A9. 38 Domestic, regional and overseas horticultural production and marketing pilots and trials completed by the end of the project.	15 trials	18 trials	5 trials		38 trials
A10. All participating marketing firms, at least 4, have long range agribusiness plans, record keeping capabilities and training in management of vertically integrated marketing firms.	2 firms	3 firms	1 firms		3 firms

Table 3 Continued. Outputs achieved for phase II of the CAPM project from 1 April 1992 to 31 March 1994

	1/4/92 [a] to 30/9/92	1/10/92 to 31/3/93	1/4/93 to 30/9/93	1/10/93[b] to 31/3/94	Maximum or Total
E. Expand The Swaziland Small Business Sector					
E.1. Increase gross value of small farmer fresh produce sales from E43,500. Year 1 - E2.5 M increase Year 2 - E1.3 M increase Year 3 - E0.6 M increase	E88,024	E129,366 E272,310 vendor	E300,446 E337,247 vendor	E142,205 E20,000 vendor	E660,041 E629,557 vendor
E.2. Decrease in national fresh produce imports from 11,60 4MT. Year 1 - 1,275 MT decrease Year 2 - 800 MT decrease Year 3 - 700 MT decrease	30.6 MT	170.65 MT 348 MT vendor	56.8 MT 337 MT vendor	189.9 MT 40 MT vendor	447.95 MT 725 MT vendor
E.3. Increase service and production capacity. Increase in avg. Marketable yield/Ha. for fresh produce. Base Y1 Y2 Y3 Incr. MT/Ha 20% 50% 100% tomato 9 11 17 34 cabbage 15 19 29 56 onion 2 3 5 10 beetroot 4 5 8 16	17 MT/ha 35 MT/ha 10 MT/ha	17.9 MT/ha 33.2 MT/ha 15 MT/ha	23 MT/ha	15 MT/ha 30 MT/ha	23 MT/ha 35 MT/ha 15 MT/ha

Table 3 Continued. Outputs achieved for phase II of the CAPM project from 1 April 1992 to 31 March 1994

	1/4/92 [a] to 30/9/92	1/10/92 to 31/3/93	1/4/93 to 30/9/93	1/10/93[b] to 31/3/94	Maximum or Total
E.4. Increase access to institutional credit. Increase in project assisted institutional loans extended. Base - 0 Year 1- 3 firms 15 farmers Year 2- 5 firms 24 farmers Year 3- 33 farmers	31 farmers received credit and 2 firms	11 farmers	46 farmers 37 male 9 female	9 farmers 9 male	97 farmers
E.5. Improve business management skills increase number of people trained. Base - 0 Year1-65 farmers 21 others Year2-35 farmers 15 others Year3-33 farmers	100 farmers 20 others	287 farmers 201 male 86 female 26 others 324 hours	168 farmers 126 male 42 female 17 others 512 hours		287 farmers 201 male 86 female 26 others 836 hours
E.6. Accelerate irrigated small-farm technology transfer. Increase in number of farmers adopting new technologies. Base - 0 Year 1 - 65 Year 2 - 35 Year 3 - 35		56 farmers		3 farmers	59 farmers

Table 3 Continued. Outputs achieved for phase II of the CAPM project from 1 April 1992 to 31 March 1994

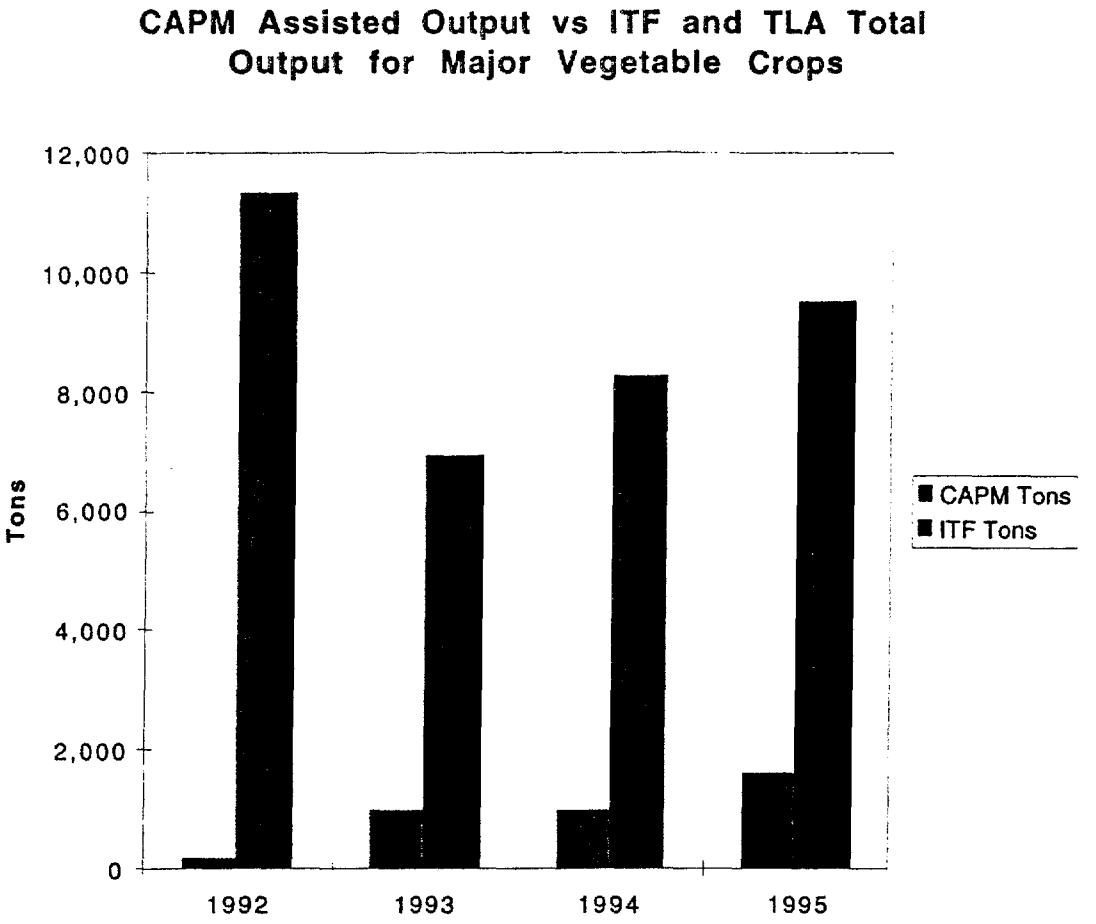
	1/4/92 [a] to 30/9/92	**1/10/92 to 31/3/93**	**1/4/93 to 30/9/93**	**1/10/93[b] to 31/3/94**	**Maximum or Total**
E.7. Introduce new horticultural crops. Year 1 - 5 Year 2 - 10 Year 3 - 3	6 new crops	10 new crops	1 new crop		17 new crops
E.8. Increase access to markets. Increase in number of regional markets supplied with fresh produce. Base - 0 Year 1-10 Year 2-26 Year 3-6	9 new markets identified	5 new markets	3 new markets		17 new markets
E.9. Improve marketing chain for fresh produce. Increase in the # of sustainable vertically integrated Swazi-owned fresh produce marketing firms. Base - 0 EOP - 4	4 firms	5 firms	2 firms		5 firms

Table 3 Continued. Outputs achieved for phase II of the CAPM project from 1 April 1992 to 31 March 1994

	1/4/92 [a] to 30/9/92	1/10/92 to 31/3/93	1/4/93 to 30/9/93	1/10/93[b] to 31/3/94	Maximum or Total
E.10. Increase supply of fresh produce to specialty markets. Increase in sales to specialty / niche markets. Base - negligible Year 1 - E 50,000 Year 2 - E150,000 Year 3 - E250,000	E47,000 total E9,000 CAPM	E575,565 total E115,000 CAPM	E322,214 total E31,476 CAPM		E944,779 total E155,476 CAPM
E.11. Cash income of participating farmers increases from E3,000 to E14,000 by EOP.	appr E1,000	E6,706	E5,876/pers E3,832/ha	E3,342/pers E9,348/ha	E4,231/pers E6,590/ha
E.12. Increase number of wage laborers in fresh produce production and amount of income received in this sector.		130 hired E53,080 13,327 person hour	175 hired 107 male 68 female E161,030 360,816 person hour	92 hired 71 male 21 female E7,332 4,400 person hour	397 hired E221,442 378,543 person hours

[a] Includes end of 1991 season.
[b] More emphasis being placed on formation of Cooperatives

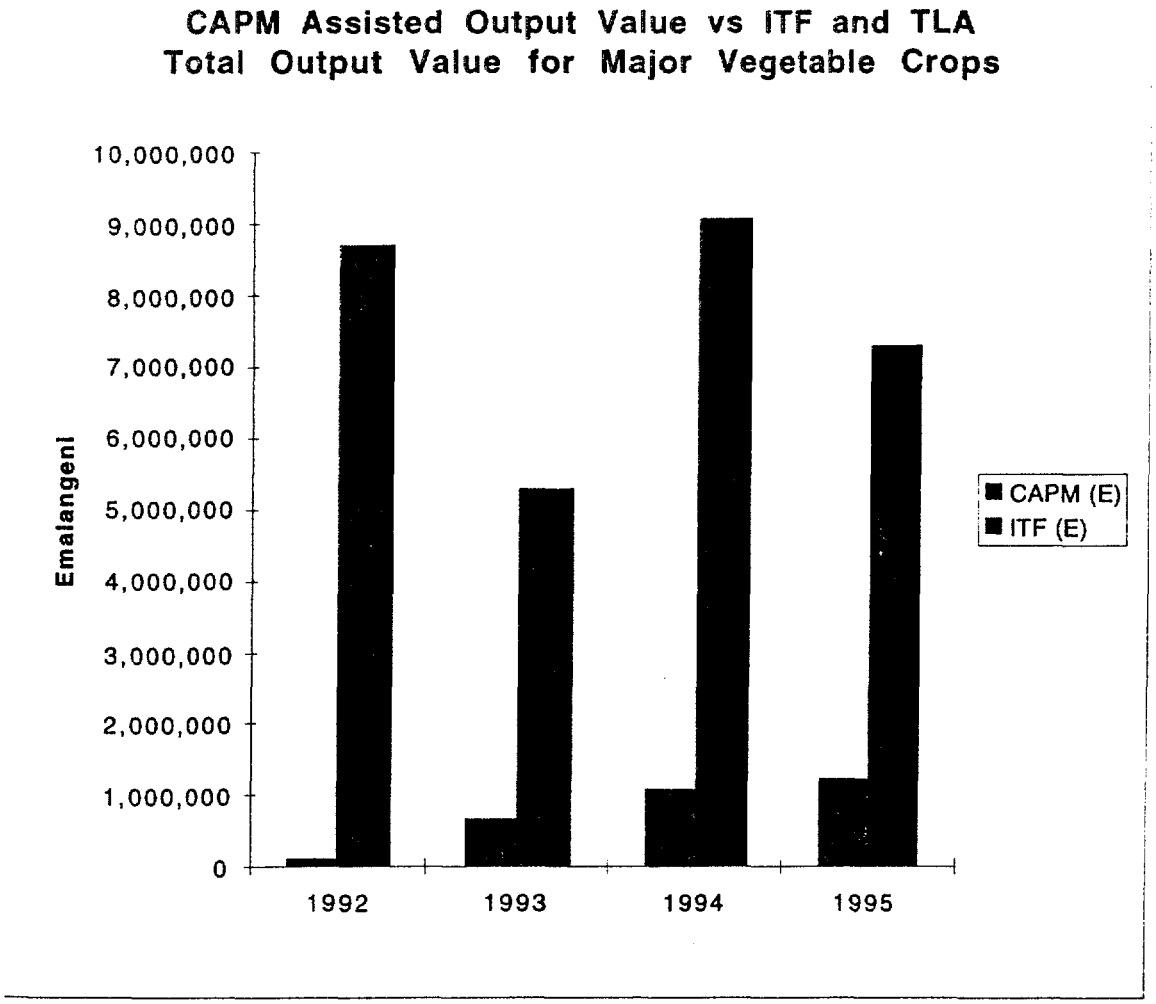
Table 4 and Figure 5. CAPM Phase III Output Tonnage Summary



	1992	1993	1994	1995	Total
CAPM					
Area (Ha)	34	88	85	98	305
Tons	158	994	985	1,897	4,034
Value (E)	120,410	637,693	1,087,599	1,210,591	3,056,293
ITF & TLA					
Area (Ha)	2,897	1,328	1,793	2,062	8,080
Tons	11,373	6,896	8,247	9,484	36,000
Value (E)	8,700,000	5,300,000	9,100,000	7,300,000	30,400,000

Notes: - ITF & TLA figures for 1994 and 1995 are based on estimations received from MOAC.
- Figures obtained from CAPM September PIR's and Swaziland Annual Statistical Reports.
- Figures do not include major field crops such as maize, cotton, sorghum etc.
- ITF = Individual Tenure Farms
- TLA = Traditional Land Area

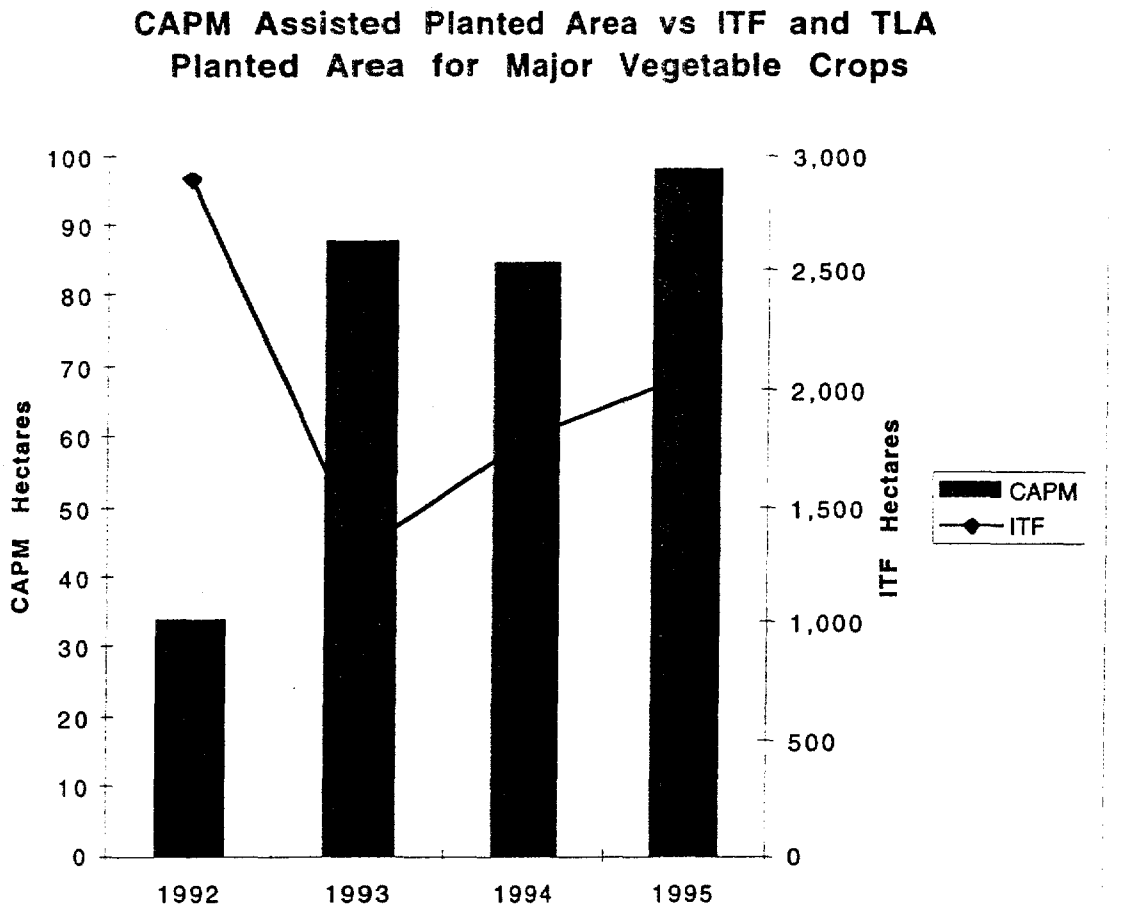
Table 4, Fig. 6. CAPM Phase III Output Value Summary



	1992	1993	1994	1995	Total
CAPM					
Area (Ha)	34	88	85	98	305
Tons	158	994	985	1,897	4,034
Value (E)	120,410	637,693	1,087,599	1,210,591	3,056,293
ITF & TLA					
Area (Ha)	2,897	1,328	1,793	2,062	8,080
Tons	11,373	6,896	8,247	9,484	36,000
Value (E)	8,700,000	5,300,000	9,100,000	7,300,000	30,400,000

Notes: - ITF & TLA figures for 1994 and 1995 are based on estimations received from MOAC.
- Figures obtained from CAPM September PIR's and Swaziland Annual Statistical Reports.
- Figures do not include major field crops such as maize, cotton, sorghum etc.
- ITF = Individual Tenure Farms
- TLA = Traditional Land Area

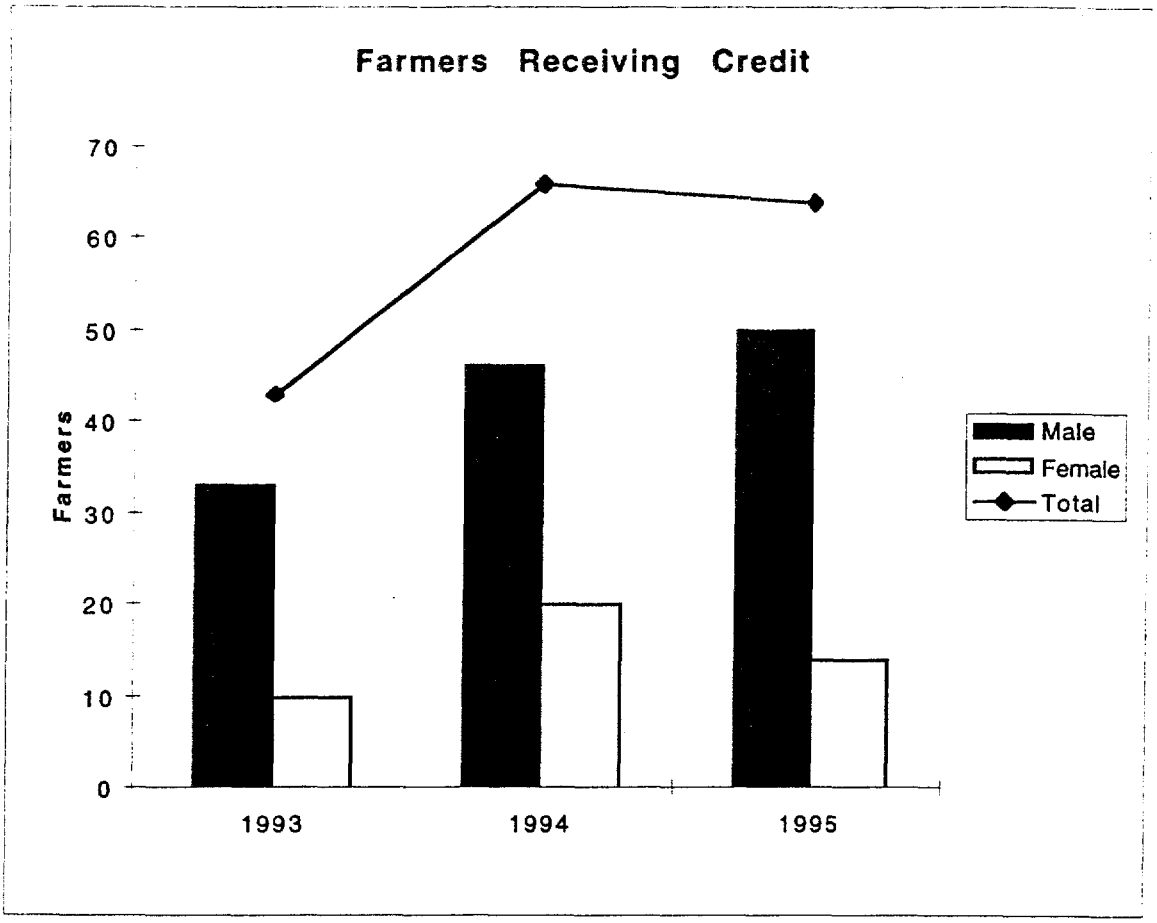
Table 4, Fig. 7. CAPM Phase III Area Planted Summary



	1992	1993	1994	1995	Total
CAPM					
Area (Ha)	34	88	85	98	305
Tons	158	994	985	1,897	4,034
Value (E)	120,410	637,693	1,087,599	1,210,591	3,056,293
ITF & TLA					
Area (Ha)	2,897	1,328	1,793	2,062	8,080
Tons	11,373	6,896	8,247	9,484	36,000
Value (E)	8,700,000	5,300,000	9,100,000	7,300,000	30,400,000

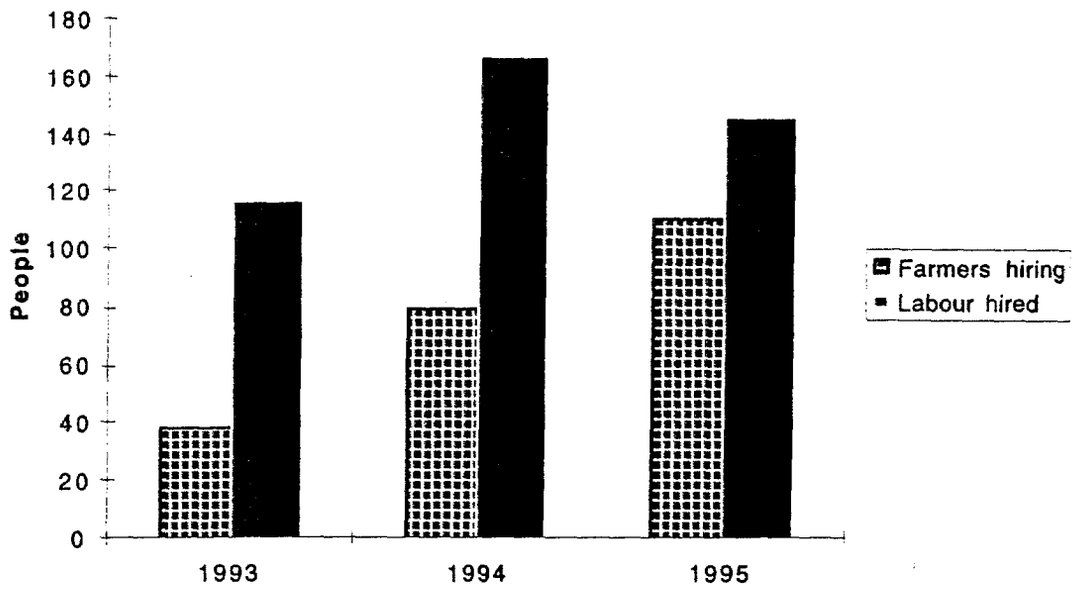
Notes: - ITF & TLA figures for 1994 and 1995 are based on estimations received from MOAC.
- Figures obtained from CAPM September PIR's and Swaziland Annual Statistical Reports.
- Figures do not include major field crops such as maize, cotton, sorghum etc.
- ITF = Individual Tenure Farms
- TLA = Traditional Land Area

Table 5, Fig. 8. CAPM Phase III Credit Summary



	Male	Female	Total
1993 HFV	20	10	30
KK	13		13
Total	**33**	**10**	**43**
1994 HFV	20	20	40
KK	26		26
Total	**46**	**20**	**66**
1995 HFV	17	13	30
KK	33	1	34
Total	**50**	**14**	**64**
Grand Total	**129**	**44**	**173**

Table 6, Fig. 9. CAPM Phase III Labour Summary



	Farmers Hiring Labour			Labour Hired		
	Male	Female	Total	Male	Female	Total
1993 HFV	19	6	25	40	23	63
KK	14		14	29	25	54
	33	**6**	**39**	**69**	**48**	**117**
1994 HFV	32	16	48	52	34	86
KK	31		31	65	16	81
	63	**16**	**79**	**117**	**50**	**167**
1995 HFV	37	22	59	36	33	69
KK	51	1	52	67	10	77
	88	**23**	**111**	**103**	**43**	**146**
Grand Total	**184**	**45**	**229**	**289**	**141**	**430**

ITEM	PROJECT PAPER DOLLARS	PROJECT PAPER PERCENT	PROJECT PAPER AMENDMENT 1 DOLLARS	PROJECT PAPER AMENDMENT 1 PERCENT	PROJECT PAPER AMENDMENT 2 DOLLARS	PROJECT PAPER AMENDMENT 2 PERCENT	ACTUAL VALUES OCT '89 - SEP '95 ($)	ASSUMED TOTALS TO MAR '96 ($)
AID INPUTS								
LT/TA	2,717,000	45	3,850,000	49	5,189,000	48	0	0
ST/TA	1,133,000	19	1,788,000	23	2,343,000	22	0	0
Training	727,000	12	173,000	2	258,000	2	0	0
Project Office	278,000	5	331,000	4	466,000	4	0	0
Commodities	470,000	8	426,000	5	561,000	5	0	0
Home Office Support	321,000	5	228,000	3	530,000	5	0	0
Furnishings	204,000	3					0	0
UNISWA			400,000	5	400,000	4	0	0
Monitoring/Evaluation/Audit	150,000	3	637,000	8	737,000	7	0	0
Grant to SBGT					100,000	1		
PSC Project Manager					249,000	2		
AID SUB-TOTAL	**6,000,000**	**100**	**7,833,000**	**100**	**10,833,000**	**100**	**0**	**0**
GOS INPUTS								
Personnel	1,298,000	62	741,000	27	800,172	22	629,167	660,014
Project Support	653,000	31	456,000	16	419,337	12	33,329	37,469
Travel	153,000	7	191,000	7	159,867	4	37,589	40,589
Training (local)								
Training (overseas)							52,050	52,050
Irrigation Rehabilitation							142,764	149,764
Furnishings, Lease & Maintenance							131,114	152,181
UNISWA, Greenhouse, Produce Store							455,663	455,663
NAMBoard					77,004	2	211,667	240,167
Overhead							629,167	660,014
Infrastructure					36,828	1	23,240	24,740
Sustainability Workshop							3,617	3,617
COMPANY/FARMER INPUTS								
Production Inputs			843,000	30	1,131,624	31	395,464	430,464
Company Facilities			368,000	13	321,408	9	264,481	264,481
Farm Labour, Facilities			196,000	7	686,760	19	911,940	983,940
Packhouses							89,583	102,583
Training							6,072	7,572
Farmer Organizations							20,160	26,880
GOS SUB-TOTAL	**2,104,000**	**100**	**2,795,000**	**100**	**3,633,000**	**100**	**4,037,067**	**4,292,188**
TOTAL PROJECT COST:	**8,104,000**		**10,628,000**		**14,466,000**		**4,037,067**	**4,292,188**

ANNEX A

Technical Advisors To The Commercial Agricultural Production And Marketing Project

Technical Advisors to the CAPM Project

Long Term Technical Assistants - Expatriats

Name	Position	Period
Kimball Kennedy III	Chief of Party	1989 - 1992
James Bunnel	Agribusiness Advisor	1989 - 1992
Robert Olson	Marketing Specialist	1989 - 1992
P.J. Blokland	Professor, Agricultural Finance	1989 - 1992
Mark Wood	Market Specialist	1991 - 1993
Charles Max	Agribusiness Specialist	1991 - 1993
Doyle Grenoble	Chief of Party	1993 - 1996
Daniel Bradbury	Chief of Party / Agribusiness	1993 - 1993
Eugene McAvoy	Marketing Organisational Specialist	1994 - 1996
Carlyle van der wath	Marketing Specialist	1994 - 1996

Long Term Technical Assistants - Local Hire

Name	Position	Period
Themba Magagula	Field Assistant	1992 - 1996
Corneluis Dlamini	Field Assistant	1992 - 1996
Jabulani Sifundza	Production Advisor	1992 - 1996
Robert Thwala	Project Co-ordinator	1992 - 1993
Andreas Simelane	Field Assistant	1992 - 1993
Richard Magagula	Field Assistant	1993 - 1996
Elliot Mavimbela	Farmer Organisation Advisor	1994 - 1996
Boniface Dlamini	Field Assistant	1994 - 1995
Eric Fakudze	Field Assistant	1994 - 1995
Ezrom Dlamini	Field Assistant	1994 - 1996

Long Term Support Staff

Name	Position	Period
Gretchen Wallace	Project Assistant	1990 - 1994
Shanette Dupont	Office Manager	1991 - 1993
Augustine Gundane	Driver	1991 - 1996
Phumzile Twhala	Cleaner	1992 - 1994
Mary Tinney	Data Management Specialist	1992 - 1994
Lucky Mkhanta	Quality Control Specialist	1992 - 1993
Nonyabulo Magagula	Receptionist	1992 - 1994
Pierenia	Administrative Support	1992 - 1994
Linda McCreesh	Secretary/Receptionist	1994 - 1996
Linda Rust	Accountant/Personnel Officer	1994 - 1996
Antony Sim	Data Management Specialist	1994 - 1996
Mojgan Derakhshani	Project Assistant	1994 - 1996

Technical Advisors to the CAPM Project Continued

Short Term Technical Assistants

Name	Position	Starting	Ending
E. Robbins	Agricultural Policy Specialist	September 1989	November 1989
Conrad Fritsch	Consultant	April 1990	September 1990
Robert Bielen	Production Credit Specialist	April 1990	July 1990
Jayne Booker	Investment Criteria Specialist	March 1990	April 1990
Irma Allan	Technical Assistant	April 1990	April 1990
Grahame Dixie	High Value Horticulturist	November 1990	December 1990
John Gardener	Agribusiness Finance	April1990	June 1990
Robert Enchonian	Market Agribusiness Infomation Specialist	April 1990	July 1990
Doyle Grenoble	CAPM Production Horticulturist	December 1990	December 1990
Doyle Grenoble	CAPM Production Horticulturist	February 1991	May 1991
Themba Masuku	Banana Production and Marketing Specialist	February 1991	February 1991
Bart Sensenig	Social Analyst	March 1991	April 1991
Mark Wood	Financial Agricultural Economist	March 1991	April 1991
Mike Boyd-Clark	Agribusiness Advisor	March 1991	April 1991
Frank Bobbitt	Financial Assistant	May 1991	June 1991
Doyle Grenoble	CAPM Production Horticulturist	August 1991	August 1991
Donald Brosz	Irrigation Specialist	October 1992	December 1992
Richard Cole	Potato Consultant	February 1992	February 1992
Anthony Sets'Abi	CAPM Facilitator	February 1992	February 1992
William Kedroc	Agribusiness Marketing	June 1992	June 1992
James Baird	Data System Specialist	June 1992	July 1992
Chris Mock	Recent Credit Consultant	July 1992	September 1992
Sam Harmon	MOAC Facilitator	May 1992	May 1992
Heather Peck	Communications Specialist	July 1992	July 1992
John Acarregui	VOCA Volunteer	July 1992	August 1992
Donald Brosz	Irrigation Specialist	October 1992	December 1992
Robert Olson	Technical Adviser Specialist	October 1992	October 1992
Daniel Bradbury	Irrigation Specialist	November 1992	January 1993
Alwin Kruger	Irrigation Consultant	October 1993	November 1993
Robert Olson	Technical Assistant	January 1993	March 1993
Alan McNab	Technical Assistant	April 1993	May 1993
John Acarregui	VOCA Volunteer	April 1993	June 1993
	VOCA Volunteer	August 1993	October 1993
Eugene McAvoy	Marketing Organisational Specialist	December 1993	December 1993
Dumile Sithole	Farmer Organisation Advisor	January 1994	February 1994
Alan McNab	IPM Specialist	Mar 1994	April 1994
Larry Yager	Marketing Specialist	May 1994	June 1994
Ousmane N'Diaye	Accountant	July 1994	July 1994
John Acarregui	Packshed Management Advisor	August 1994	October 1994
Robert Olson	Acting Chief of Party	September 1994	October 1994
John Acarregui	Packshed Management Advisor	November 1994	December 1994
Robert Olson	Business Plan Specialist	July 1995	August 1995
John Acarregui	Packshed Management Advisor	June 1995	August 1995
Alan McNab	Vegetable Pathologist Specialist	November 1995	December 1995
Charles Cooper	Consultant (MOAC)	October 1995	October 1995
Larry Yager	Marketing Specialist	October 1995	November 1995
	(USAID)	January 1996	January 1996
John Acarregui	(USAID)	January 1996	February 1996

ANNEX B

Technical Reports Produced by The Commercial Agricultural Production And Marketing Project

Technical Reports

November 1989.	Policies Issued Needed Review by MOAC, Conrad F. Fritsch.
November 1989.	Final Draft, Conrad F. Fritsch.
January 1990.	CAPM Institutional Baseline Study, Conrad F. Fritsch.
January 1990.	Baseline Study, E. Robbins.
January 1990.	Tomato Marketing Durban 1990, James Bunnell and Ben Dlamini.
February 1990.	CAPM Retreat, Harry Sutherland.
March 1990.	Cairo-Nairobi Work Related Observation Tour, Trip Report,
April 1990.	USA/London Production and Dehydration Observation Tour, Trip Report,
June 1990.	Investment Criteria Report, Jayne M. Booker.
June 1990.	Strengthening Swazilands' AgriBus Info system, Robert V. Enochian and Robert E. Olson.
July 1990.	Credit Report, John W. Gardner and Ronald R. Bielen.
July 1990.	New Market Opportunities For Swaziland Agricultural Sector, Grahame Dixie.
July 1990.	Training Needs Assessment Seminar, Irma A. Allen.
November 1990.	Constriants to Achieving Expanded Production and Marketing of Agricultural Products by Small Scale Farmers, Conrad F. Fritsch.
January 1991.	Production /Marketing Opportunities, Harry van der Berg, Ben Dlamini, Doyle Grenoble and Grahame Dixie.
January 1991.	End of Tour Report, P.J. Van Blokland.
February 1991.	CAPM Redirection, Robert E. Olson.
March 1991.	Proposed Components of Project Redirection and Extention, Conrad F. Fristch and Robert E. Olson.
April 1991.	Concept Papers, Mike Boyd-Clark, Mark Wood and Bart Sensenig.
May 1991.	Irrigation Survey, Donald J. Bronsz and Doyle Grenoble.
June 1991.	Concept Paper and Analysis Redirection and Extension, Mike Boyd-Clark, Mark Wood, Bart Sensenig and Robert E. Olson.
August 1991.	Components for Restructuring the MOAC, Conrad F. Fritsch.

Technical Reports Continued

August 1991.	Enhanced Outreach Programs in the Faculty of Agriculture of The University of Swaziland, Frank Bobbitt.
December 1991.	Restructuring MOAC, Conrad F. Fritsch.
December 1991.	CAPM Staff Orientation and Retreat, Kimball Kennedy.
February 1992.	Winter Production Plan,
February 1992.	CAPM Workplan Retreat, Anthony Sets' Abi.
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March 1993.	Produce Marketing Management Report, Harry Manion.
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October 1993.	End of Tour Report, Charles J. Max.
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March 1994.	Plant & Vegetable Diseases Report, Alan McNab.
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Technical Reports Continued

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October 1994.	End of Tour Report, Robert E. Olson.
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November 1995.	Trip Report, Larry L. Yager.
December 1995.	Vegetable Diseases Report, Alan McNab.
January 1996.	Final Report, Jabulani Sifundza.
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March 1996.	Final Report, John Acarregui.

IMPLEMENTATION REPORT

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January 1996.	Quarterly Progress Report.

ANNEX C

Hhohho Fruit and Vegetable Growers Cooperative: Selected reports

- Statement of Income and Expense andBalance Sheet for 1994
- Statement of Income and Expense andBalance Sheet for 1995
- Inventory of Equipment provided by CAPM
- Farmer Information

Table 8. Audited Statement of Income and Expenses for HFV Cooperative for period ending 31 December 1994.

Income	**Emalangeni**	
Chemical and fertilizer sales	7,274.00	
Produce sales	86,234.00	
Member's fees	1,080.00	
Donations (CAPM)	35,937.00	
Total: Income		**130,525.00**
Operating Expenses		
Chemicals and fertilizer purchases	6,151.00	
Produce purchases	63,839.00	
Packing material	17,464.00	
Transport	1,500.00	
Stationery	1,601.00	
Audit fees	5,000.00	
Sundry expenses	86.00	
Salaries and wages	16,118.00	
Security expenses	1,620.00	
Total: Operating Expenses		**113,379.00**
Net Profit		**17,146.00**

Table 9. Audited Balance Sheet for HFVcooperative for period ending 31 December 1994.

	Emalangeni	
Capital Employed		
Members shares	3,000.00	
Retained profit	17,146.00	
		20,146.00
Employment of Capital		
Fixed assets	33,274.00	
Less donor grants	33,274.00	
Cash	17,159.00	
Sundry debtors	7,987.00	
Audit fees accrued	5,000.00	
		20,146.00

Table 10. Unaudited Statement of Income and Expense for HFV Cooperative for period ending 31 December 1995.

Income	**Emalangeni**	
Chemical and fertilizer sales	47,625.95	
Produce sales	88,290.89	
Member's fees	300.00	
Interest income	309.34	
Sundry income	282.01	
Total: Income		**136,808.19**
Operating Expenses		
Chemicals and fertilizer purchases	45,083.12	
Produce purchases	62,150.78	
Packing material	1,088.57	
Transport	2,448.30	
Stationery	554.98	
Postage	2.10	
Fuel	6,021.07	
Electricity	554.98	
Salaries and wages	9,383.65	
Bank charges	335.65	
Hospitality	2,310.82	
Maintenance	523.03	
Travel expense	135.20	
Donation	100.00	
Taxation	10.50	
Total: Operating Expenses		**130,702.75**
Net Profit		**6,105.44**

Table 11. Unaudited Balance Sheet for HFV Cooperative for period ending 31 December 1995.

Assets	**Emalangeni**		
Current Assets:			
Cash	25,886.88		
Accounts Receivable	1,094.70		
Inventory	8,290.76		
*** Total: Current Assets		35,272.34	
Fixed Assets			
Grading Line	27,410.00		
Office Furrowniture and Equipment	3,327.00		
Other Equipment	2,537.00		
Lugs	8,350.00		
Office equipment	815.55		
*** Total: Fixed Assets		42,439.55	
Total: Assets			**77,711.89**
Liabilities and Capital			
Current Liabilities			
Accounts Payable	9,892.75		
Water Tank	950.00		
Revolving Funds	1,084.00		
Demo Trials	118.00		
*** Total: Current Liabilities		12,044.75	
Capital			
Member Shares	4,231.70		
Retained Profit	17,146.00		
Current Profit	6,105.44		
Net Equity	27,483.14		
Grants and Donations	38,184.00		
*** Total: Capital		65,667.14	
Total: Liabilities and Capital			**77,711.89**

Table 12. Inventory List for HFV Cooperative, provided through the CAPM Project.

Quantity	Item	Original Cost
2	Tape measures	279.90
1	Measuring tape	169.20
1100	Lug boxes	15,774.00
1	Hand stapler & pliers	235.13
4	Podiums	260.00
1	Tomato sorter	19,700.00
10	Packing stands	2,040.00
3	Self inking stamps	140.00
1	Markwell pliers	266.29
1	Stapling machine	1,495.00
1	Tensioner	318.00
1	APCON 13mm sealer	239.00
	Fence & 2 gates	3,113.05
1	PLastic water tank 2500lt	950.00
8	Stamp pads	350.00
2	Diesel drums, 210 litre	
1	Mechanical scale, 10 kg	1,350.00
1	Platform scale	1,950.00
2	Hanging scales	1,138.00
1	Cash box	95.00
	Locks	420.70
1	Door lock	52.65
1	Hose pipe 25m	55.35
1	Wheelbarrow	128.00
1	Digging spade	29.80
1	Safe	921.80
1	Metal rake	23.60
1	Filing cabinet	499.00
1	Steel door and frame	199.00
	Fencing	599.83
	Floor tiles	483.00
1	Door	49.95
1	Mortice lock	25.95
	Fencing	3,113.05
1	Borehole	(approximately) 9,000.00
1	Diesel generator	(approximately) 35,000.00
1	Toolbox & tools	866.48
1	Grease gun	48.99
	Signs	1,080.00
	Display table	600.00
	Workstation	737.50
	Planting machine	351.41
	Fencing material	4,062.10
	Fax machine	1,300.00
	Building material, labour & misc	147,081.73

Table 12 cont. Inventory List for HFV Cooperative, provided through the CAPM Project.

Quantity	Item	Original Cost
1	Ford Courier LDV	29,625.00
	Nissian 1 Tonner LDV	
	Nissian	
	Sprite sport caravan	28,413.23
	1 Ton trailer	8,234.27
	Spare wheel	590.29
	Total	**283,506.15**

Table 13. Farmers in the HFV area that have participated in CAPM Project activities including code number of farmer, date joined the cooperative society (if member), land area available for vegetable production, and ownership status of land.

Number	Farmer Name	Cooperative Member	Sex	Available Hectares	Land Type
N58	Dikiza Eliot		M	0.80	SNL
N150	Dlamini Dan		M	0.80	*
N151	Dlamini Daniel T.		M	3.00	SNL
N3	Dlamini Dominic		M	0.80	SNL
N156	Dlamini Dorah	7/5/94	F	0.80	SNL
N4	Dlamini Douglas		M	0.80	*
N73	Dlamini Enoch	10/5/95	M	5.00	TDL
N36	Dlamini Florence		F	0.50	SNL
N155	Dlamini Girly		F	0.20	SNL
N70	Dlamini Henry		M	0.80	SNL
N83	Dlamini Isaac		M	0.50	SNL
N109	Dlamini Jeremiah	8/23/94	M	0.20	*
N78	Dlamini Johannes		M	0.80	SNL
N74	Dlamini John	10/3/94	M	1.00	SNL
N103	Dlamini Kremur		M	1.60	*
N154	Dlamini Linah		F	0.80	SNL
N37	Dlamini Lomgwaco	6/5/94	F	0.40	SNL
N71	Dlamini Lucky		M	0.80	SNL
N77	Dlamini Mabhendone		M	0.40	SNL
N153	Dlamini Maria	7/14/94	F	0.80	SNL
N57	Dlamini Mavelebaleni		M	1.00	SNL
N181	Dlamini Mehelane		M	0.80	SNL
N38	Dlamini Mgudvwa	6/23/94	M	0.40	*
N152	Dlamini Minah		F	0.80	SNL
N72	Dlamini Mpisebovu		F	2.00	SNL
N169	Dlamini Mpumelelo		M	0.80	SNL
N81	Dlamini Nkosiyeva		M	0.60	SNL
N166	Dlamini Ntfombi		F	0.80	SNL
N47	Dlamini Pishi		M	0.80	SNL
N134	Dlamini Siphiwe	10/3/94	M	0.25	*
N82	Dlamini Sipho		M	0.40	SNL
N52	Dlamini Tom		M	0.60	SNL
N126	Dlamini. Ngimu		M	0.78	*
N165	Fakudze Albert N.		M	2.00	SNL
N69	Fakudze Friday		M	0.20	SNL
N26	Fakudze Mbulawa		M	0.60	*
N30	Fakudze Mmema		M	0.30	*
N8	Fakudze Shiwe	6/16/94	F	0.40	*
N9	Fakudze Simon	10/7/95	M	1.40	SNL
N10	Ginindza Stephen	6/21/94	M	1.00	SNL
N158	Gule Aaron		M	1.00	SNL
N107	Gule Abel		M	0.40	SNL
N157	Gule Busisiwe		F	0.20	*

Table 13 Continued. HFV Farmer listing.

Number	Farmer Name	Cooperative Member	Sex	Available Hectares	Land Type
N65	Gule Elijah	3/31/95	M	0.40	*
N66	Gule Elinah	7/5/94	F	0.20	*
N39	Gule Grace		F	0.20	*
N40	Gule Lomvula		F	0.30	SNL
N106	Gule Mambonda		M	0.20	*
N105	Gule Margaret		F	0.20	*
N41	Gule Mboziswa	6/21/94	M	0.80	SNL
N42	Gule Patricia	7/5/94	F	0.20	*
N161	Gule Thembi		F	0.40	SNL
N168	Gwebu Gerome	9/23/94	M	0.40	SNL
N141	Hlophe Trezer		M	0.78	
N31	Khoza Enock		M	0.80	SNL
N56	Kunene Anna		F	0.40	SNL
N159	Lubisi Girly	7/19/94	F	0.80	SNL
N160	Lubisi Lymen		M	0.80	SNL
N68	Lukhele Ntjanini		M	0.40	SNL
N128	Mabuza Masilela		M	0.78	*
N95	Mabuza Sarah		F	0.30	SNL
N98	Madlopha Lilly	7/14/94	F	0.40	SNL
N67	Magagula Anna		F	0.20	*
N113	Magagula Herod		M	0.40	SNL
N108	Magagula Madankla		M	0.20	*
N120	Magagula Winnie		F	0.20	*
N163	Mageba Minah		F	0.40	SNL
N91	Magongo Emellina	6/27/94	F	0.40	SNL
N201	Magongo Petros		M	0.80	SNL
N148	Makwakwa Magarete		F	0.60	SNL
N14	Malinga Elliot		M	0.90	SNL
N167	Maluleki Madzimela		M	0.78	*
N102	Mamba Agnes		F	0.20	SNL
N140	Mamba Beauty		F	0.46	*
N28	Mamba Boiling		M	0.78	*
N89	Mamba Boshiwe	7/6/94	F	0.40	SNL
N15	Mamba Joseph	6/30/94	M	0.75	SNL
N138	Mamba Ndingi		M	0.25	*
N142	Mamba Paulinah		F	0.46	*
N32	Mamba Thomas		M	0.30	*
N33	Manana James	6/16/94	M	1.60	SNL
	Masuku Anna		F	0.10	*
N130	Matfunjwa Elias		M	0.20	*
N200	Mavuso Dan G.	2/15/95	M	1.00	SNL
N118	Mavuso Dlenge	9/2/95	M	0.40	SNL
N114	Mavuso Obed		M	0.40	SNL
N117	Mavuso Shuca		M	0.20	*
N162	Maziya Sam	7/31/95	M	0.40	SNL
N164	Mdluli Ellie	7/12/94	F	0.80	SNL

Table 13 Continued. HFV Farmer listing.

Number	Farmer Name	Cooperative Member	Sex	Available Hectares	Land Type
N61	Mhlabane Sibusiso	7/21/94	M	0.44	SNL
N127	Mhlamga Velphi		M	0.78	*
N132	Mhlanga Sababonkhe	7/7/94	M	0.78	*
N34	Mhlanga Thomas	6/16/94	M	0.20	*
N119	Mhlanga Zodwa		F	0.20	*
N147	Mkhonta Agnes	2/19/95	F	2.00	SNL
N43	Mkhonta Bhekilange	10/14/94	M	0.20	*
N55	Mncina Jabulani		M	0.10	SNL
N136	Mndzebele Elmon		M	0.78	*
N44	Motsa Grace		F	0.50	SNL
N104	Motsa James Mthathe		M	0.40	SNL
N111	Motsa Macuba		M	0.80	SNL
N133	Motsa Paulos		M	0.20	*
N18	Msimango Joseph		M	0.80	SNL
N137	Mtsetfwa Helmon		M	0.78	*
N79	Mtsetfwa Sipho		M	0.80	SNL
N76	Mtsetfwa Vusi	9/2/95	M	1.00	*
N19	Mziyako Phineas	6/29/94	M	0.80	SNL
N51	Ndabezitha Jerry		M	0.50	SNL
N62	Ndlela Bhekithemba		M	0.20	*
N125	Ndwandwe Eliot		M	0.78	*
N129	Ndwandwe Mangaliso		M	0.78	*
N131	Ndwandwe Petros		M	0.78	*
N17	Nkuna Sikhotsa		M	0.80	SNL
N110	Nonjola Edward		M	0.40	SNL
N80	Phenyane Sigayoyo		M	0.40	*
N63	Shabangu Ruth	6/30/94	F	1.00	*
	Shiba Jabulani	5/10/95	M	0.78	*
N90	Shongwe Aaron		M	0.40	SNL
N87	Shongwe David	7/7/94	M	0.40	SNL
N96	Shongwe December		M	0.20	SNL
N92	Shongwe Dudu		F	0.20	SNL
N93	Shongwe Ellina	6/6/95	F	0.20	SNL
N99	Shongwe Lompahlo		F	0.20	SNL
N202	Shongwe Lucas		M	1.00	SNL
N124	Shongwe Mandlenkosi		M	0.78	*
N94	Shongwe Mkhosiswe		F	0.20	SNL
N88	Shongwe Ntfombilembi		F	0.40	SNL
N116	Shongwe Ruth		F	0.46	*
N101	Shongwe Sarah		F	0.30	SNL
N75	Shongwe Simon		M	8.00	SNL
N100	Shongwe Siphiwe		F	0.20	SNL
N123	Shongwe William	7/21/94	M	0.20	*

Table 13 Continued. HFV Farmer listing.

Number	Farmer Name	Cooperative Member	Sex	Available Hectares	Land Type
N139	Siboza Lizzy	7/7/94	F	0.46	*
N135	Simelane Mbhuti			0.78	*
N145	Simelane Mary	6/29/94	F	0.20	SNL
N86	Simelane Petros	6/16/94	M	0.40	SNL
N112	Simelane Zilindile	11/3/94	F	0.40	SNL
N21	Sithole Francis		M	0.80	SNL
N22	Thwala Albert	6/27/94	M	0.90	SNL
N24	Thwala Mthukutseli	4/18/94	M	0.80	*
N84	Tsabedze Mavela		M	0.20	SNL
N85	Tsabedze Tfomo	7/14/94	M	0.20	SNL
N64	Tumber Tryphine		F	0.40	*
N146	Vilakati Idah	6/22/94	F	0.80	SNL
N149	Vilakati Thalitha		F	0.40	SNL
N180	Vilakati Victoria		F	1.00	SNL
N97	Vilane Lufukati	6/27/94	M	0.40	SNL
N25	Vilakati Ganda		M	0.80	*
Totals				**101**	

Notes: * = Information not available (assume SNL and average land area)
SNL = Swazi Nation Land
TDL = Title Deed Land

ANNEX D

Khulumela Kwenta Vegetable Growers Cooperative: Selected reports

- Statement of Income and Expense andBalance Sheet for 1994
- Statement of Income and Expense andBalance Sheet for 1995
- Inventory of Equipment provided by CAPM
- Farmer Information

Table 14. Audited Statement of Income and Expenses for KK Cooperative for period ending 31 December 1994.

Income	**Emalangeni**	
Seed and diesel sales	37,896.00	
Produce sales	447,031.00	
Interest received	17.00	
Sundry income	332.00	
Member's fees	1,905.00	
Donations (CAPM)	50,955.00	
Total: Income		**538,136.00**
Operating Expenses		
Seed and diesel produce	54,220.00	
Produce purchases	348,644.00	
Packing material	27,084.00	
Bank charges	966.00	
Entertainment	3,277.00	
Repairs to packhouse	835.00	
Travelling expenses	6,658.00	
Legal expenses	1,204.00	
Stationery	11,235.00	
Audit fees	6,000.00	
Sundry expenses	581.00	
Salaries and wages	22,550.00	
Electricity	973.00	
Total: Operating Expenses		**484,227.00**
Net Profit		**53,909.00**

Table 15. Audited Balance Sheet for KK Cooperative for period ending 31 December 1994.

	Emalangeni	
Capital Employed		
Members shares	4,180.00	
Retained profit	53,909.00	
		58,089.00
Employment of Capital		
Fixed assets	77,714.00	
Less donor grants	77,714.00	
Cash	55,117.00	
Stock	8,972.00	
Audit fees accrued	6,000.00	
		58,089.00

Table 16. Unaudited Statement of Income and Expenses for KK Cooperative for period ending 31 December 1995.

Income	**Emalangeni**	
Produce and Input Sales	1,054,728.69	
Member's Fees	660.00	
Interest Income	2,679.99	
Sundry Income	176.71	
Total: Income		**1,058,245.39**
Operating Expenses		
Produce and Input Purchases	1,001,593.81	
Transport / Fuel / Oil	36,812.31	
Bank Charges	2,126.51	
Unpaid Cheques	590.56	
Wages and Salaries	39,277.87	
Electricity	1,788.46	
Telephone	3,057.63	
Entertainment	565.25	
Committee Expenses	2,651.12	
KK Donation	1,178.03	
Protective Clothing	2,960.00	
Printing and Stationery	2,042.13	
Repairs to Packhouse	200.00	
Sundry Expenses	108.57	
Packing Material	7,012.00	
Total: Expenses		**1,101,964.25**
Net Profit		**-43,718.86**

Table 17. Unaudited Balance Sheet for KK Cooperative for period ending 31 December 1995.

Assets	**Emalangeni**		
Current Assets:			
Cash	23,874.47		
Inventories	22,062.12		
Accounts Receivable	59,102.43		
*** Total: Current Assets		105,039.02	
Fixed Assets			
Lugs	16,600.00		
Equipment	1,060.78		
Other Fixed Assets	73,650.80		
*** Total: Fixed Assets		91,311.58	
Total: Assets			**196,350.60**
Liabilities and capital			
Current Liabilities			
Accounts Payable	82,090.66		
*** Total: Liabilities		82,090.66	
Capital			
Member Shares	24,419.00		
Retained Profit	53,909.00		
Less Current Loss	43,718.86		
Net Equity	34,609.14		
Grants and Donations	76,650.80		
*** Total: Capital		111,259.94	
Total: Liabilities and Capital			**193,350.60**

Table 18. Inventory List for KK Cooperative, provided through the CAPM Project.

Quantity	Item	Total
2	Hanging scale	1,138.00
1600	Lug boxes	22,944.00
1	Rhino safe	921.80
1	Platform scale	1,950.00
2	Door frames steel	244.90
1	Lever 3 locksets	34.40
1	Window frame	198.25
2	Taps	78.30
2	Cisterns	93.90
2	Hand basins	226.10
1	Water tank	65.00
1	Door lock	52.65
1	Hose pipe	55.35
1	Tape	35.95
1	Spade	29.80
1	Rake	23.60
1	Wheelbarrow	128.00
1	Hose pipe	49.65
2	Shovels	61.00
2	Fabricated doors	7,660.00
70	Metres mesh and fence posts	4,889.78
1	Foot stapler	2,152.00
1	Markwell pliers	284.75
1	HD Tensioner	460.00
7	Window frames	1,271.43
7	Window panes	280.54
1	Grading Machine	30,500.00
8	Small stamp pads	308.00
2	Stamp pads	57.52
1	Grease gun	72.30
1	Tools and tool box	730.13
6	Metal grading tables	600.00
1	Quartz clock	50.00
2	Doors	475.90
1	Erasable board	500.00
1	Green felt board	245.00
1	Stapling machine and staples	3,476.95

Table 18 cont. Inventory List for KK Cooperative, provided through the CAPM Project.

Quantity	Item	Total
1	Sharp calculator	475.00
1	Cash box	95.00
1	Filing cabinet	499.00
1	Chalkboard	280.00
1	Ford Courier LDV	29,625.00
1	1 Ton Trailer	8,234.27
1	Spare wheel	590.29
	Grading machine wheels	600.00
1	Planting machine	1,351.41
1	KK Signboard	175.00
1	Trolley	150.00
	Whirly birds	10,952.00
1	Fax machine	1,300.00
	Building blocks and materials	13,033.80
1	Wang Computer & printer	1,000.00
	Total	**150,705.72**

Table 19. Farmers in the KK area that have participated in CAPM Project activities including code number of farmer, date joined the cooperative society (if member), land area available for vegetable production, ownership status of land, and method of irrigation used.

Code No.	Farmer Name	Cooperative Member	Sex	Available Hectares	Land Type	Irrig. Method
U60	Chief Madlenya	3/1/94	M	1.50	SNL	Furrow
U91	Dladla Logoma	4/5/94	M	4.00	SNL	Furrow
U81	Dlamini Butana	12/12/94	M	2.00	SNL	Furrow
U74	Dlamini Daniel	4/5/94	M	2.00	SNL	Furrow
U37	Dlamini David	4/5/94	M	3.00	SNL	Furrow
U2	Dlamini Londumane	?	M	3.00	SNL	Furrow
U54	Dlamini Mazide	2/23/94	M	4.00	SNL	Furrow
U95	Dlamini Mfaneni	2/13/95	M	1.00	TDL	Furrow
U55	Dlamini Mfelani	3/18/94	M	5.00	SNL	Furrow
U35	Dlamini Micah	2/16/94	M	3.00	SNL	Furrow
U16	Dlamini Mthinini	10/2/93	M	3.00	SNL	Furrow
U17	Dlamini Patrick	10/2/93	M	1.60	SNL	Furrow
U38	Dlamini Philemon	4/11/94	M	5.00	SNL	Furrow
U66	Dlamini Philemon M.	4/5/94	M	0.65	SNL	Furrow
U3	Dlamini Sipho	1/24/94	M	4.00	SNL	Spr
U105	Dlamini Soul	12/2/94	M	23.00	*	Spr
U10	Dlamini Zebulon	1/5/94	M	1.00	SNL	Furrow
U68	Gadlela Gigimba	3/18/94	M	0.50	SNL	Furrow
U62	Gamedze Dumsane	8/18/94	M	3.00	SNL	Spr
U47	Gamedze Mfanukhona	1/18/94	M	4.50	SNL	Furrow
U1	Gamedze Mgcashula	11/30/93	M	0.50	*	Furrow
U30	Gamedze Mhlanganyelwa	1/5/94	M	1.25	*	Furrow
U69	Gwebu Makeke	4/24/94	M	0.40	SNL	Furrow
U18	Henwood Gavin		M	26.00	TDL	Spr
U109	Hlabekisa Veg. Assoc.		G	2.00	SNL	Furrow
U64	Khumalo Aaron	12/12/94	M	0.50	SNL	Furrow
U67	Khumalo Daniel	?	M	1.00	SNL	Furrow
U92	Khumalo Douglas	1/17/95	M	1.50	SNL	Spr
U51	Khumalo Simon	12/12/94	M	3.00	SNL	Furrow
U77	Lukhele Phineas	11/29/94	M	5.00	*	Spr
U112	Mabasa Victor		M	5.00	SNL	Furrow
U32	Mabilisi Duma	1/5/94	M	5.00	SNL	Spr
U53	Madlenya Irr. Scheme	2/1/94	M	2.50	SNL	Furrow
U27	Mahlobo Petros	10/2/93	M	3.00	*	Furrow
U57	Makhaliphi Samuel	5/3/94	M	3.00	SNL	Drp
U46	Mamba Elias	2/16/94	M	0.80	SNL	Furrow
U29	Mamba Gideon	10/2/93	M	3.00	*	Furrow
U99	Mamba Hlehle	11/8/94	M	2.00	*	Furrow

Table 19 Continued. KK Farmer Listing

Code No.	Farmer Name	Cooperative Member	Sex	Available Hectares	Land Type	Irrig. Method
U48	Mamba Joseph	2/16/94	M	4.50	SNL	Furrow
U79	Mamba Mafutha	2/16/94	M	2.00	SNL	Furrow
U96	Mamba Mgcibelo	2/16/94	M	1.00	SNL	Furrow
U9	Mamba Mntshintshwa	12/14/93	M	1.00	SNL	Furrow
U103	Mamba Mshiyeni	7/21/95	M	7.00	*	Furrow
U108	Mamba Oscar		M	10.00	SNL	Spr
U107	Mamba Phillip		M	6.00	SNL	Furrow
U5	Mamba Vincent	2/16/94	M	1.00	SNL	Furrow
U15	Masango Philemon	10/2/93	M	6.00	SNL	Furrow
U12	Matse Joseph	5/10/94	M	1.50	*	Furrow
U70	Matsenjwa Dortia		F	1.00	SNL	Furrow
U28	Matsenjwa Elijah	10/2/93	M	1.00	SNL	Furrow
U19	Mavimbela Elliot	1/5/94	M	2.60	SNL	Furrow
U93	Maziya Ndumiso	2/14/95	M	2.00	SNL	Furrow
U71	Maziya Zondwako		M	3.00	SNL	Furrow
U106	Mbamali Johanes	10/19/94	M	2.70	SNL	Furrow
U73	Metfula Enock	8/31/94	M	5.00	SNL	Furrow
U6	Mkhalipi Muzi	6/22/94	M	2.00	SNL	Furrow
U111	Mkhasmenya Veg. Growers			2.00	SNL	Furrow
U97	Mkhonta Paulos			1.50	SNL	Furrow
U98	Mkweli Jeremiah	4/24/95	M	3.00	SNL	Furrow
U49	Mngomentulu Logidi	2/1/94	M	4.00	SNL	Furrow
U8	Mngomezulu Churchill	2/16/94	M	7.00	SNL	Furrow
U100	Msibi Jerome	9/29/95	M	6.00	*	Furrow
U94	Msibi Joseph	2/16/94	M	2.00	TDL	Furrow
U20	Mvubu Sipho	3/1/94	M	3.00	SNL	Furrow
U50	Myeni Busisiwe	3/1/94	M	1.00	*	Furrow
U43	Myeni Daniel	2/1/94	M	2.00	*	Furrow
U26	Ndwandwe Johannes		M	1.00	*	Furrow
U14	Ndwandwe Obed	10/2/93	M	5.00	SNL	Spr
U7	Ndzimandze Makhaya	3/1/94	M	2.00	SNL	Spr
U33	Ndzinisa Bertinah	2/1/94	F	1.50	SNL	Furrow
U42	Ndzinisa Jeconiah	2/1/94	M	2.00	SNL	Furrow
U45	Ngamphalala Daniel	12/14/93	M	5.00	SNL	Furrow
U59	Ngcamphala Hezekial	6/3/94	M	5.00	SNL	Spr
U76	Ngcamphalala Absalom	6/28/94	M	2.00	SNL	Furrow
U24	Ngcamphalala Mbabala	2/16/94	M	2.00	SNL	Furrow
U61	Ngcamphalala Mcalile	8/1/94	M	2.60	SNL	Spr
U44	Ngcamphalala Nkalane	4/5/94	M	1.50	*	Furrow
U41	Ngcamphalala Samuel	12/21/93	M	5.00	SNL	Furrow
U36	Ngwenya Obed	2/16/94	M	5.00	SNL	Furrow

Table 19 Continued. KK Farmer Listing

Code No.	Farmer Name	Cooperative Member	Sex	Available Hectares	Land Type	Irrig. Method
U40	Ngwenya Zakewu		M	0.50	*	Furrow
U21	Nhlabatsi Mandla		M	5.00	TDL	Spr
U75	Nhlapo Mangaliso	11/13/94	M	4.00	SNL	Furrow
U80	Nhleko Simoyi	1/1/95	M	1.50	SNL	Furrow
U102	Ntjangase Lydiah	9/2/95	F	5.00	SNL	Spr
U104	Nxumalo Doctor	7/31/95	M	5.00	*	Furrow
U78	Nxumalo Mathupha	12/6/94	M	4.00	SNL	Furrow
U110	Nzama Farmers Assoc.			3.00	SNL	Furrow
U72	Shongwe Daniel	9/27/94	M	3.00	SNL	Furrow
U114	Sikhondze Solomon	3/3/95	M	6.00	SNL	Furrow
U39	Sithole Boy	4/5/94	M	2.50	SNL	Furrow
U65	Sithole Samuel	5/5/94	M	1.50	SNL	Furrow
U101	Skhondze Dawonye	9/29/95	M	4.00	*	Furrow
U34	Thwala Obed	2/16/94	M	4.00	SNL	Furrow
U25	Tsabedze Johannes	12/14/93	M	5.00	SNL	Furrow
U58	Tsabedze Mciniseli	3/18/94	M	6.00	SNL	Furrow
U56	Vilakati Lofana	6/3/94	M	1.50	SNL	Furrow
U63	Vilakati Veletieni	7/5/94	M	1.00	SNL	Furrow
U113	Vilane Mbongeni		M	1.50	SNL	Furrow
U31	Zwane Bongani	12/14/93	M	1.50	*	Furrow
Totals				**334**		

Notes: * = Information not available (assume SNL and average land area)
SNL = Swazi Nation Land
TDL = Title Deed Land
FUR = Furrow
SPR = Sprinkler

ANNEX E

Programmed Production: Selected Data and Information

- Farmer Planting Schedule
- Actual Planted Area vs Proposed Planted Area
- Projected Output vs Actual Planted Output
- Field Assistant Projections for Fresh Tomatoes
- Overall Harvest Projection Summary Sheet

Table 20. KK Farmer Planting Schedule

No	Farmer	Location	Crop	Progr	Area1	Planted	Area2	Est. Harv	Actual Harv Date1	Est. Harv Yield T/ha	Comments	Last Harv Date2
U10	Dlamini Zeblon	Siphofaneni	Tomato F	5-Feb-96	0.15			25-Mar-04	29-Apr-96	20		
U102	Ntjanase Lydia	Siphofaneni	Pchillies	11-Dec-95	0.50			25-Mar-04	4-Mar-96	10		
U107	Mamba Phillip	Siphofaneni	Tomato F	25-Dec-95	0.25	4-Dec-95	0.10	26-Feb-96	26-Feb-96	10	blight	
U109	Hlabekisa Veg. Assoc.	Siphofaneni	Tomato F	5-Feb-96	0.25			25-Mar-04	29-Apr-96	20		
U12	Matse Joseph	Siphofaneni	Tomato F	21-Aug-95	0.10	25-Sep-95	0.20	18-Dec-95	18-Dec-95	0	crop failed / weather	
U14	Ndwandwe Obed	Siphofaneni	Butternut	8-May-95	0.20	11-Sep-95	0.50	11-Dec-95	11-Dec-95	15		
U14	Ndwandwe Obed	Siphofaneni	Tomato F			16-Oct-95	0.25	8-Jan-96	8-Jan-96	20	rodade / mite problem	
U14	Ndwandwe Obed	Siphofaneni	Tomato F			23-Oct-95	0.25	15-Jan-96	15-Jan-96	0	crop failed / weather	
U14	Ndwandwe Obed	Siphofaneni	Tomato F			12-Feb-96	0.25	6-May-96	6-May-96	20		
U15	Masango Philemon	Siphofaneni	Carrots	18-Dec-95	0.10			1-Apr-04	18-Mar-96	20		
U15	Masango Philemon	Siphofaneni	Carrots	1-Jan-96	0.10			1-Apr-04	1-Apr-96	20		
U15	Masango Philemon	Siphofaneni	Pepper	15-Jan-96	0.25			25-Mar-04	8-Apr-96	20		
U15	Masango Philemon	Siphofaneni	Pepper			16-Nov-95	0.25	8-Feb-96	8-Feb-96	20	bacterial spot	
U15	Masango Philemon	Siphofaneni	Tomato F	8-Jan-96	0.25			25-Mar-04	1-Apr-96	20		
U16	Dlamini Mthinini	Siphofaneni	Butternut	24-Jul-95	0.10	16-Oct-95	0.20	15-Jan-96	15-Jan-96	15		
U16	Dlamini Mthinini	Siphofaneni	Butternut			16-Oct-95	0.30	15-Jan-96	15-Jan-96	15		
U16	Dlamini Mthinini	Siphofaneni	Cabbage	18-Dec-95	0.10	4-Dec-95	0.35	4-Mar-96	4-Mar-96	25		
U16	Dlamini Mthinini	Siphofaneni	Cabbage			5-Feb-96	0.10	6-May-96	6-May-96	25		
U16	Dlamini Mthinini	Siphofaneni	Onion	3-Apr-95	0.25	16-Oct-95	0.20	18-Dec-95	18-Dec-95	10		5-Jun
U16	Dlamini Mthinini	Siphofaneni	Swatermelon			16-Oct-95	0.20	15-Jan-96	15-Jan-96	25		
U16	Dlamini Mthinini	Siphofaneni	Tomato F	18-Dec-95	0.50	25-Dec-95	0.25	18-Mar-96	18-Mar-96	20		
U17	Dlamini Patrick	Siphofaneni	Cabbage	5-Feb-96	0.10	5-Feb-96	0.50	6-May-96	6-May-96	25		
U17	Dlamini Patrick	Siphofaneni	Cabbage			25-Nov-95	0.01	24-Feb-96	24-Feb-96	25		
U17	Dlamini Patrick	Siphofaneni	Cabbage			12-Feb-96	0.50	13-May-96	13-May-96	25		
U17	Dlamini Patrick	Siphofaneni	Pepper	1-Jan-96	0.10	4-Dec-95	0.10	26-Feb-96	26-Feb-96	20		
U17	Dlamini Patrick	Siphofaneni	Pepper			12-Feb-96	0.10	6-May-96	6-May-96	20		
U17	Dlamini Patrick	Siphofaneni	Swatermelon			23-Oct-95	0.05	22-Jan-96	22-Jan-96	25		
U17	Dlamini Patrick	Siphofaneni	Tomato F	4-Dec-95	0.10	15-Jan-96	0.25	8-Apr-96	8-Apr-96	20		
U17	Dlamini Patrick	Siphofaneni	Tomato F			30-Oct-95	0.10	22-Jan-96	22-Jan-96	20	HTX	
U17	Dlamini Patrick	Siphofaneni	Tomato F			5-Feb-96	0.25	29-Apr-96	29-Apr-96	20		
U19	Mavimbela Elliot	Siphofaneni	Cabbage	1-Jan-96	0.30			1-Apr-04	1-Apr-96	25		
U19	Mavimbela Elliot	Siphofaneni	Cabbage	15-Jan-96	0.30			1-Apr-04	15-Apr-96	25		
U19	Mavimbela Elliot	Siphofaneni	Pepper	15-Jan-96	0.25			25-Mar-04	8-Apr-96	20		
U19	Mavimbela Elliot	Siphofaneni	Pepper	22-Jan-96	0.25			25-Mar-04	15-Apr-96	20		
U19	Mamba Gideon	Siphofaneni	Tomato F			18-Sep-95	0.25	11-Dec-95	11-Dec-95	0	zest / crop failure due to weather	
U19	Mavimbela Elliot	Siphofaneni	Tomato F			16-Oct-95	0.25	8-Jan-96	8-Jan-96	0	htx65 / crop failure	
U2	Dlamini Londumane	Siphofaneni	Butternut	1-Jan-96	0.25			1-Apr-04	1-Apr-96	15		
U24	Ngcamphalala Mbabala	Sithobela	Okra	4-Dec-95	0.10			4-Mar-04	5-Feb-96	10		
U24	Ngcamphalala Mbabala	Sithobela	Pepper	1-Jan-96	0.20			25-Mar-04	25-Mar-96	20		
U24	Ngcamphalala Mbabala	Sithobela	Sweet Po	18-Dec-95	0.20	25-Dec-95	0.01	25-Mar-96	25-Mar-96	25		
U25	Tsabedze Johannes	Siphofaneni	Tomato F	7-Aug-95	0.50	11-Sep-95	0.25	4-Dec-95	4-Dec-95	0	zest crop failure due to weather	

Table 20. KK Farmer Planting Schedule

No	Farmer	Location	Crop	Progr	Area1	Planted	Area2	Est. Harv	Actual Harv Date1	Est. Harv Yield T/ha	Comments	Last Harv Date2
U25	Tsabedze Johannes	Siphofaneni	Tomato F			11-Sep-95	0.25	4-Dec-95	4-Dec-95	0	zest crop failure due to weather	
U25	Tsabedze Johannes	Siphofaneni	Tomato F			5-Feb-96	0.10	29-Apr-96	29-Apr-96	20		
U27	Mahlobo Petros	Siphofaneni	Tomato F	22-Jan-96	0.25	25-Nov-95	0.25	17-Feb-96	17-Feb-96	20		
U27	Mahlobo Petros	Siphofaneni	Tomato F			29-Jan-96	0.50	22-Apr-96	22-Apr-96	20		
U27	Mahlobo Petros	Siphofaneni	Tomato F			8-Jan-96	0.50	1-Apr-96	1-Apr-96	20		
U28	Matsenjwa Elijah	Siphofaneni	Butternut			6-Nov-95	0.10	5-Feb-96	5-Feb-96	15		
U28	Matsenjwa Elijah	Siphofaneni	Onion			13-Nov-95	0.01	15-Jan-96	15-Jan-96	10	poor stand due to weather	
U28	Matsenjwa Elijah	Siphofaneni	Pchillies	19-Feb-96	0.10	15-Jan-96	0.10	8-Apr-96	8-Apr-96	10		
U28	Matsenjwa Elijah	Siphofaneni	Pepper	18-Dec-95	0.25			25-Mar-04	11-Mar-96	20		
U28	Matsenjwa Elijah	Siphofaneni	Pepper	29-Jan-96	0.25			25-Mar-04	22-Apr-96	20		
U28	Matsenjwa Elijah	Siphofaneni	Tomato F	1-Jan-96	0.30	8-Jan-96	0.25	1-Apr-96	1-Apr-96	20		
U28	Matsenjwa Elijah	Siphofaneni	Tomato F			13-Nov-95	0.25	5-Feb-96	5-Feb-96	0	crop failed due to weather	
U29	Mamba Gideon	Siphofaneni	Pepper			6-Nov-95	0.15	29-Jan-96	29-Jan-96	20		
U29	Mamba Gideon	Siphofaneni	Pepper			25-Sep-95	0.15	18-Dec-95	18-Dec-95	20		
U29	Mamba Gideon	Siphofaneni	Tomato F	20-Mar-95	0.10	18-Sep-95	0.25	11-Dec-95	11-Dec-95	0	zest / VIRUS PROBLEM / crop failed	
U30	Gamedze Mhlanganyelv	Siphofaneni	Pchillies	11-Dec-95	0.10			25-Mar-04	4-Mar-96	10		
U30	Gamedze Mhlanganyelv	Siphofaneni	Pepper	22-Jan-96	0.25			25-Mar-04	15-Apr-96	20		
U30	Gamedze Mhlanganyelv	Siphofaneni	Tomato F	21-Aug-95	0.10	18-Sep-95	0.25	11-Dec-95	11-Dec-95	20	zest	
U30	Gamedze Mhlanganyelv	Siphofaneni	Tomato F			18-Sep-95	0.25	11-Dec-95	11-Dec-95	20	zest	
U30	Gamedze Mhlanganyelv	Siphofaneni	Tomato F			16-Oct-95	0.25	8-Jan-96	8-Jan-96	20	htx65	
U33	Ndzinisa Bertinah	Siphofaneni	Onions	25-Dec-95	0.25	13-Nov-95	0.01	15-Jan-96	15-Jan-96	10		
U33	Ndzinisa Bertinah	Siphofaneni	Tomato F	5-Jun-95	0.50	18-Sep-95	0.25	11-Dec-95	11-Dec-95	0	zest / VIRUS PROBLEM / crop failed	
U33	Ndzinisa Bertinah	Siphofaneni	Tomato F	25-Dec-95	0.10	18-Dec-95	0.25	11-Mar-96	11-Mar-96	20		
U33	Ndzinisa Bertinah	Siphofaneni	Tomato F			18-Sep-95	0.25	11-Dec-95	11-Dec-95	0	zest / VIRUS PROBLEM / crop failed	
J34	Thwala Obed	Sithobela	Butternut	11-Dec-95	0.25			1-Apr-04	11-Mar-96	15		
J34	Thwala Obed	Sithobela	Butternut			23-Oct-95	0.10	22-Jan-96	22-Jan-96	15		
J34	Thwala Obed	Sithobela	Pepper	29-Jan-96	0.30			25-Mar-04	22-Apr-96	20		
J34	Thwala Obed	Sithobela	Swaterme	4-Dec-95	0.25			1-Apr-04	4-Mar-96	25		
J34	Thwala Obed	Sithobela	Tomato F	25-Dec-95	0.50			25-Mar-04	18-Mar-96	20		
J34	Thwala Obed	Sithobela	Tomato F			30-Oct-95	0.50	22-Jan-96	22-Jan-96	20	htx	
J35	Dlamini Micah	Sithobela	Butternut			23-Oct-95	0.10	22-Jan-96	22-Jan-96	15		
J35	Dlamini Micah	Sithobela	Tomato F	5-Jun-95	0.25	11-Sep-95	0.25	4-Dec-95	4-Dec-95	0	ZEST / crop failed	
J35	Dlamini Micah	Sithobela	Tomato F			11-Sep-95	0.25	4-Dec-95	4-Dec-95	0	zest / virus / crop failed	
J35	Dlamini Micah	Sithobela	Tomato F			23-Oct-95	0.20	15-Jan-96	15-Jan-96	20	rodade	
J35	Dlamini Micah	Sithobela	Tomato F			5-Feb-96	0.50	29-Apr-96	29-Apr-96	20		
J36	Ngwenya Obed	Sithobela	Butternut	15-Jan-96	0.25			1-Apr-04	15-Apr-96	15		
J36	Ngwenya Obed	Sithobela	Butternut	29-Jan-96	0.25			1-Apr-04	29-Apr-96	15		
J36	Ngwenya Obed	Sithobela	Tomato F	12-Feb-96	0.50			25-Mar-04	6-May-96	20		
J38	Dlamini Philemon	Siphofaneni	Butternut	1-Jan-96	0.25			1-Apr-04	1-Apr-96	15		
J38	Dlamini Philemon	Siphofaneni	Butternut	8-Jan-96	0.50			1-Apr-04	8-Apr-96	15		
J38	Dlamini Philemon	Siphofaneni	Butternut			6-Nov-95	0.20	5-Feb-96	5-Feb-96	15		

Table 20. KK Farmer Planting Schedule

No	Farmer	Location	Crop	Progr	Area1	Planted	Area2	Est. Harv	Actual Harv Date1	Est. Harv Yield T/ha	Comments	Last Harv Date2
J38	Dlamini Philemon	Siphofaneni	Green Bea	11-Dec-95	0.10			4-Mar-04	12-Feb-96	10		
J38	Dlamini Philemon	Siphofaneni	Green Bea	8-Jan-96	0.10			4-Mar-04	11-Mar-96	10		
J38	Dlamini Philemon	Siphofaneni	Pchillies	1-Jan-96	0.25			25-Mar-04	25-Mar-96	10		
J38	Dlamini Philemon	Siphofaneni	Pepper	1-Jan-96	0.25			25-Mar-04	25-Mar-96	20		
J38	Dlamini Philemon	Siphofaneni	Sugar Bea	4-Dec-95	0.50			25-Mar-04	26-Feb-96	20		
J38	Dlamini Philemon	Siphofaneni	Tomato F	22-Jan-96	0.25			25-Mar-04	15-Apr-96	20		
J38	Dlamini Philemon	Siphofaneni	Tomato F	5-Feb-96	0.50	18-Dec-95	0.20	11-Mar-96	11-Mar-96	20		
J43	Myeni Daniel	Siphofaneni	Tomato F	3-Jul-95	0.50	18-Sep-95	0.20	11-Dec-95	11-Dec-95	0	zest / MITES / crop failed	
J43	Myeni Daniel	Siphofaneni	Tomato F			18-Sep-95	0.10	11-Dec-95	11-Dec-95	0	zest / crop failed	
J46	Mamba Elias	Sithobela	Cabbage	18-Dec-95	0.10			1-Apr-04	18-Mar-96	25		
J46	Mamba Elias	Sithobela	Cabbages	18-Dec-95	0.10			1-Apr-04	18-Mar-96	25		
J46	Mamba Elias	Sithobela	Pepper	18-Dec-95	0.20			25-Mar-04	11-Mar-96	20		
J46	Mamba Elias	Sithobela	Tomato F	27-Mar-95	0.10	9-Oct-95	0.20	1-Jan-96	1-Jan-96	0	crop failed due to weather	
J46	Mamba Elias	Sithobela	Tomato F	15-Jan-96	0.20			25-Mar-04	8-Apr-96	20		
J48	Mamba Joseph	Sithobela	Butternut	4-Dec-95	0.25			1-Apr-04	4-Mar-96	15		
J48	Mamba Joseph	Sithobela	Cabbages	18-Dec-95	0.10			1-Apr-04	18-Mar-96	25		
J48	Mamba Joseph	Sithobela	Pepper	18-Dec-95	0.10			25-Mar-04	11-Mar-96	20		
J48	Mamba Joseph	Sithobela	Sweet Po	11-Dec-95	0.25			1-Apr-04	11-Mar-96	25		
J48	Mamba Joseph	Sithobela	Tomato F	4-Sep-95	0.50	9-Oct-95	0.20	1-Jan-96	1-Jan-96	0	crop failed due to weather	
J48	Mamba Joseph	Sithobela	Tomato F	15-Jan-96	0.25			25-Mar-04	8-Apr-96	20		
J5	Mamba Vincent	Sithobela	Butternut	11-Dec-95	0.50			1-Apr-04	11-Mar-96	15		
J5	Mamba Vincent	Sithobela	Cabbages	4-Mar-96	0.25	18-Nov-95	0.50	17-Feb-96	17-Feb-96	25		
J5	Mamba Vincent	Sithobela	Green Bea	4-Dec-95	0.20			4-Mar-04	5-Feb-96	10		
J5	Mamba Vincent	Sithobela	Green Bea	25-Dec-95	0.10			4-Mar-04	26-Feb-96	10		
J5	Mamba Vincent	Sithobela	Green Bea	15-Jan-96	0.20			4-Mar-04	18-Mar-96	10		
J5	Mamba Vincent	Sithobela	Tomato F	3-Jul-95	0.20	18-Sep-95	0.30	11-Dec-95	11-Dec-95	20	zest POOR STAND	
J5	Mamba Vincent	Sithobela	Tomato F	26-Feb-96	0.25			25-Mar-04	20-May-96	20		
J5	Mamba Vincent	Sithobela	Tomato F			18-Sep-95	0.25	11-Dec-95	11-Dec-95	20	zest / poor stand	
J51	Khumalo Simon	Sithobela	Pepper	25-Dec-95	0.25			25-Mar-04	18-Mar-96	20		
J51	Khumalo Simon	Sithobela	Tomato F	26-Feb-96	0.25			25-Mar-04	20-May-96	20		
J53	Madlenya Irr. Scheme	Siphofaneni	Tomato F	10-Jul-95	0.20	11-Sep-95	0.25	4-Dec-95	4-Dec-95	0	zest crop failed due to weather / mites	
J53	Madlenya Irr. Scheme	Siphofaneni	Tomato F			11-Sep-95	0.25	4-Dec-95	4-Dec-95	0	zest crop failed due to weather / mites	
J55	Dlamini Mfelani	Siphofaneni	Tomato F	19-Feb-96	0.25			25-Mar-04	13-May-96	20		
J56	Vilakati Lofana	Siphofaneni	Pepper	12-Jun-95	0.10	25-Sep-95	0.20	18-Dec-95	18-Dec-95	20		
J57	Makhaliphi Samuel	Siphofaneni	Cabbage	25-Dec-95	0.25			1-Apr-04	25-Mar-96	25		
J57	Makhaliphi Samuel	Siphofaneni	Cabbage	8-Jan-96	0.25			1-Apr-04	8-Apr-96	25		
J57	Makhaliphi Samuel	Siphofaneni	Carrots	25-Dec-95	0.10			1-Apr-04	25-Mar-96	20		
J57	Makhaliphi Samuel	Siphofaneni	Onions	11-Dec-95	0.10			4-Mar-04	12-Feb-96	10		
J57	Makhaliphi Samuel	Siphofaneni	Pepper			16-Oct-95	0.20	8-Jan-96	8-Jan-96	20		
J57	Makhaliphi Samuel	Siphofaneni	Swatermelon			23-Oct-95	0.20	22-Jan-96	22-Jan-96	10	rotting	
J57	Makhaliphi Samuel	Siphofaneni	Tomato F	25-Dec-95	0.25	11-Dec-95	0.25	4-Mar-96	4-Mar-96	20		

Table 20. KK Farmer Planting Schedule

No	Farmer	Location	Crop	Progr	Area1	Planted	Area2	Est. Harv	Actual Harv Date1	Est. Harv Yield T/ha	Comments	Last Harv Date2
J59	Ngcamphala Hezekial	Siphofaneni	Beets	4-Mar-96	0.10			4-Mar-04	6-May-96	10		
J59	Ngcamphala Hezekial	Siphofaneni	Butternut	22-Jan-96	0.25			1-Apr-04	22-Apr-96	15		
J59	Ngcamphala Hezekial	Siphofaneni	Cabbage	1-Jan-96	0.10			1-Apr-04	1-Apr-96	25		
J59	Ngcamphala Hezekial	Siphofaneni	Carrots	11-Dec-95	0.10			1-Apr-04	11-Mar-96	20		
J59	Ngcamphala Hezekial	Siphofaneni	Pepper	29-Jan-96	0.10			25-Mar-04	22-Apr-96	20		
J59	Ngcamphala Hezekial	Siphofaneni	Tomato F	5-Feb-96	0.10			25-Mar-04	29-Apr-96	20		
J6	Mkhalipi Muzi	Sithobela	Butternut	22-Jan-96	0.50			1-Apr-04	22-Apr-96	15		
J6	Mkhalipi Muzi	Sithobela	Green Bea	18-Dec-95	0.10			4-Mar-04	19-Feb-96	10		
J6	Mkhalipi Muzi	Sithobela	Pepper	25-Dec-95	0.50	4-Dec-95	0.10	26-Feb-96	26-Feb-96	20		
J6	Mkhalipi Muzi	Sithobela	Sugar Bea	11-Dec-95	0.50			25-Mar-04	4-Mar-96	20		
J6	Mkhalipi Muzi	Sithobela	Sugar Bea	18-Dec-95	0.50			25-Mar-04	11-Mar-96	20		
J6	Mkhalipi Muzi	Sithobela	Sugar Bea	25-Dec-95	0.50			25-Mar-04	18-Mar-96	20		
J6	Mkhalipi Muzi	Sithobela	Sugar Bea	1-Jan-96	0.50			25-Mar-04	25-Mar-96	20		
J64	Khumalo Aaron	Sithobela	Tomato F	29-Jan-96	0.25			25-Mar-04	22-Apr-96	20		
J64	Khumalo Aaron	Sithobela	Tomato F			25-Sep-95	0.20	18-Dec-95	18-Dec-95	20	zest / poor stand and mites	
J64	Khumalo Aaron	Sithobela	Tomato N	11-Mar-96	0.25			25-Mar-04	3-Jun-96	20		
J65	Sithole Samuel	Sithobela	Butternut	18-Dec-95	0.10	27-Nov-95	0.20	26-Feb-96	26-Feb-96	15		
J65	Sithole Samuel	Sithobela	Pepper	25-Dec-95	0.10	11-Nov-95	0.20	3-Feb-96	3-Feb-96	20		
J69	Makeke Gwebu	Siphofaneni	Beets	18-Dec-95	0.10			4-Mar-04	19-Feb-96	10		
J7	Ndzimandze Makhaya	Siphofaneni	Cabbage	25-Dec-95	0.25	27-Nov-95	0.25	26-Feb-96	26-Feb-96	25		
J7	Ndzimandze Makhaya	Siphofaneni	Cabbage	8-Jan-96	0.25			1-Apr-04	8-Apr-96	25		
J7	Ndzimandze Makhaya	Siphofaneni	Egg Plant	4-Dec-95	0.10			1-Apr-04	4-Mar-96	20		
J7	Ndzimandze Makhaya	Siphofaneni	Egg Plant	1-Jan-96	0.10	8-Jan-96	0.20	8-Apr-96	8-Apr-96	20		
J7	Ndzimandze Makhaya	Siphofaneni	Egg Plant	4-Mar-96	0.10			1-Apr-04	3-Jun-96	20		
J7	Ndzimandze Makhaya	Siphofaneni	Tomato F	10-Apr-95	0.10	25-Sep-95	0.25	18-Dec-95	18-Dec-95	0	ZEST / crop failed	
J7	Ndzimandze Makhaya	Siphofaneni	Tomato F			25-Sep-95	0.25	18-Dec-95	18-Dec-95	0	ZEST / crop failed	
J72	Shongwe Daniel	Sithobela	Pepper	8-Jan-96	0.20			25-Mar-04	1-Apr-96	0	crop failed	
J72	Shongwe Daniel	Sithobela	Tomato F	18-Dec-95	0.50			25-Mar-04	11-Mar-96	20		
J72	Shongwe Daniel	Sithobela	Tomato F			11-Sep-95	0.20	4-Dec-95	4-Dec-95	0	rodade crop failed	
J73	Metfula Enock	Siphofaneni	Tomato F	29-Jan-96	0.25			25-Mar-04	22-Apr-96	20		
J78	Nxumalo Mathupa	Siphofaneni	Pepper			8-Jan-96	0.10	1-Apr-96	1-Apr-96	20		
J79	Mamba Mafutha	Siphofaneni	Butternut			9-Oct-95	0.10	8-Jan-96	8-Jan-96	15	not marketing through the packshed	
J79	Mamba Mafutha	Siphofaneni	Pepper			16-Oct-95	0.10	8-Jan-96	8-Jan-96	20	not marketing through the packshed	
J79	Mamba Mafutha	Siphofaneni	Pumpkin			9-Oct-95	0.10	1-Jan-96	1-Jan-96	20		
J79	Mamba Mafutha	Siphofaneni	Swatermelon			16-Oct-95	0.10	15-Jan-96	15-Jan-96	25		
J79	Mamba Mafutha	Sithobela	Tomato N	18-Mar-96	0.50			25-Mar-04	10-Jun-96	20		
J79	Mamba Mafutha	Sithobela	Tomato N	25-Mar-96	0.50			25-Mar-04	17-Jun-96	20		
J8	Mngomezulu Churchill	Sithobela	Tomato F	5-Jun-95	0.20	11-Sep-95	0.25	4-Dec-95	4-Dec-95	10	ZEST / poor stand	
J8	Mngomezulu Churchill	Sithobela	Tomato F			25-Sep-95	0.20	18-Dec-95	18-Dec-95	10	ZEST / poor stand	
J80	Nhleko Simoyi	Siphofaneni	Pchillies	4-Dec-95	0.15			25-Mar-04	26-Feb-96	10		
J80	Nhleko Simoyi	Siphofaneni	Pepper	18-Dec-95	0.20	4-Dec-95	0.01	26-Feb-96	26-Feb-96	20		

Table 20. KK Farmer Planting Schedule

No	Farmer	Location	Crop	Progr	Area1	Planted	Area2	Est. Harv	Actual Harv Date1	Est. Harv Yield T/ha	Comments	Last Harv Date2
180	Nhleko Simoyi	Siphofaneni	Tomato N	11-Mar-96	0.25			25-Mar-04	3-Jun-96	20		
181	Dlamini Bhutana	Sithobela	Tomato F	25-Dec-95	0.25	5-Feb-96	0.25	29-Apr-96	29-Apr-96	20		
181	Dlamini Bhutana	Sithobela	Tomato N	18-Mar-96	0.25			25-Mar-04	10-Jun-96	20		
19	Mamba Mntshintshwa	Siphofaneni	Carrots	4-Dec-95	0.10			1-Apr-04	4-Mar-96	20		
19	Mamba Mntshintshwa	Siphofaneni	Carrots	8-Jan-96	0.10			1-Apr-04	8-Apr-96	20		
19	Mamba Mntshintshwa	Siphofaneni	Carrots	5-Feb-96	0.10			1-Apr-04	6-May-96	20		
19	Mamba Mntshintshwa	Siphofaneni	Pepper	8-Jan-96	0.40			25-Mar-04	1-Apr-96	20		
19	Mamba Mntshintshwa	Siphofaneni	Sweet Po	4-Dec-95	0.75	4-Dec-95	0.25	4-Mar-96	4-Mar-96	25		
19	Mamba Mntshintshwa	Siphofaneni	Tomato F	1-Jan-96	0.50	11-Dec-95	0.50	4-Mar-96	4-Mar-96	20		
193	Maziya Ndumiso	Siphofaneni	Pepper			23-Oct-95	0.10	15-Jan-96	15-Jan-96	10	poor stand	
193	Maziya Ndumiso	Siphofaneni	Tomato F	4-Dec-95	0.25	18-Dec-95	0.10	11-Mar-96	11-Mar-96	20		
193	Maziya Ndumiso	Siphofaneni	Tomato F	19-Feb-96	0.25			25-Mar-04	13-May-96	20		
193	Maziya Ndumiso	Siphofaneni	Tomato F			16-Oct-95	0.20	8-Jan-96	8-Jan-96	0	htx65 / no crop - bacterial spot	
194	Msibi Joseph	Sithobela	Tomato F	8-Jan-96	0.20			25-Mar-04	1-Apr-96	20		
195	Dlamini Mfaneni	Siphofaneni	Tomato F			6-Nov-95	0.25	29-Jan-96	29-Jan-96	20	rodade	
196	Mamba Mgcibelo	Sithobela	Butternut	15-Jan-96	0.25			1-Apr-04	15-Apr-96	15		
196	Mamba Mgcibelo	Sithobela	Tomato F	4-Mar-96	0.25			25-Mar-04	27-May-96	20		
197	Sikhondze Solomon	Sithobela	Green Bea	22-Jan-96	0.20	25-Dec-95	0.25	26-Feb-96	26-Feb-96	5	poor stand	
197	Sikhondze Solomon	Sithobela	Pepper	1-Jan-96	0.25	30-Oct-95	0.10	22-Jan-96	22-Jan-96	20		
197	Sikhondze Solomon	Sithobela	Tomato F	1-Jan-96	0.20	18-Dec-95	0.25	11-Mar-96	11-Mar-96	5	poor stand	
197	Sikhondze Solomon	Sithobela	Tomato F			5-Feb-96	0.10	29-Apr-96	29-Apr-96	20		
199	Mamba Hlehle	Sithobela	Pchillies	4-Dec-95	0.50			25-Mar-04	26-Feb-96	10		
199	Mamba Hlehle	Sithobela	Pchillies	29-Jan-96	0.25			25-Mar-04	22-Apr-96	10		
199	Mamba Hlehle	Sithobela	Pchillies	5-Feb-96	0.25			25-Mar-04	29-Apr-96	10		
199	Mamba Hlehle	Sithobela	Pepper	25-Dec-95	0.10			25-Mar-04	18-Mar-96	20		
	Vilane Mbongeni	Siphofaneni	Tomato F	31-Jul-95	0.25	25-Sep-95	0.20	18-Dec-95	18-Dec-95	20	MITE PROBLEM	
	Vilane Mbongeni	Siphofaneni	Tomato F	28-Aug-95	0.25	9-Oct-95		1-Jan-96	1-Jan-96	20		

Table 20. KK Farmer Planting Schedule

No	Farmer	Location	Crop	Progr	Area1	Planted	Area2	Est. Harv	Actual Harv Date1	Est. Harv Yield T/ha	Comments	Last Harv Date2
	TOTAL				34.1		21.2					
	Field Assistant : Cornelius										The Commercial Agricultural Production and Marketing Project	

Table 21. Actual Planted Area vs Proposed Planted Area

	SEP				OCT					NOV				DEC 95				JAN 96					FEB 96				MAR 96				APR 96				
Date	4	11	18	25	2	9	16	23	30	6	13	20	27	4	11	18	25	1	8	15	22	29	5	12	19	26	4	11	18	25	1	8	15	22	
Week No.	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	TOTAL
ROP																																			
epper																																			
a Proposed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.95	0.80	0.60	0.50	0.50	0.65	0.00	0.00	0.10	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	4.95
otal planted	0.00	0.00	0.00	0.35	0.00	0.00	0.30	0.10	0.10	0.15	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.41
North	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					0.00
S/S	0.00	0.00	0.00	0.35	0.00	0.00	0.30	0.10	0.10	0.15	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00					1.41
abbage																																			
a Proposed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.40	0.50	0.40	0.50	0.30	0.00	0.00	0.10	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.45
otal planted	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.70
North	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.70
arrots																																			
a Proposed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.02	0.00	0.10	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.83
otal planted	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
North	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
leets																																			
la Proposed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.15	0.05	0.00	0.00	0.19	0.00	0.00	0.00	0.01	0.05	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60
otal planted	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.22
North	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.22
S/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
:hillies																																			
la Proposed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65	0.60	0.00	0.00	0.25	0.00	0.00	0.00	0.25	0.25	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.10
otal planted	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10
North	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					0.00
S/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					0.10

Table 21. Actual Planted Area vs Proposed Planted Area

	SEP				OCT					NOV				DEC 95				JAN 96					FEB 96				MAR 96				APR 96				
Date	4	11	18	25	2	9	16	23	30	6	13	20	27	4	11	18	25	1	8	15	22	29	5	12	19	26	4	11	18	25	1	8	15	22	
Week No.	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	TOTAL
omato F																																			
a Proposed	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.55	0.05	1.10	1.35	1.00	0.45	0.70	0.50	0.60	1.00	0.50	0.50	0.50	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.65
tal planted	0.00	2.10	2.35	1.30	0.00	0.90	0.95	0.45	0.60	0.35	0.25	0.00	0.00	0.30	0.80	0.90	0.25	0.00	0.75	0.40	0.00	0.50	1.20	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.60
North	0.00	0.15	0.00	0.00	0.00	0.50	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.20	0.05	0.10	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					1.25
S/S	0.00	1.95	2.35	1.30	0.00	0.40	0.95	0.45	0.60	0.25	0.25	0.00	0.00	0.10	0.75	0.80	0.25	0.00	0.75	0.25	0.00	0.50	1.20	0.25	0.00	0.00	0.00	0.00	0.00	0.00					13.35
utternut																																			
a Proposed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.75	0.10	0.05	0.50	0.50	0.50	0.75	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.65
tal planted	0.00	0.50	0.00	0.00	0.00	0.30	0.50	0.20	0.00	0.30	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00
North	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					0.20
S/S	0.00	0.50	0.00	0.00	0.00	0.10	0.50	0.20	0.00	0.30	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					1.80
reen Beans																																			
a Proposed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.10	0.10	0.10	0.00	0.10	0.30	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.10
tal planted	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25
North	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25
omato N																																			
a Proposed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.75	0.50	0.00	0.00	0.00	0.00	1.75
tal planted	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
North	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
/atermelon																																			
a Proposed	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25
tal planted	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.55
North	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S/S	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.55
Total Prog.	**0.5**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.1**	**0.0**	**0.0**	**0.0**	**2.1**	**1.6**	**2.7**	**3.1**	**3.1**	**2.3**	**2.5**	**2.0**	**1.9**	**1.5**	**0.5**	**0.8**	**0.5**	**0.6**	**0.5**	**0.9**	**0.5**	**0.0**	**0.0**	**0.0**	**0.0**	**27.32**
ccum. Tot.	1	1	1	1	1	1	1	1	1	1	1	1	1	3	4	7	10	13	15	18	20	22	23	24	24	25	25	26	27	27	27	27	27	27	27
ot. Planted	**0.0**	**2.6**	**2.4**	**1.7**	**0.0**	**1.3**	**2.1**	**1.0**	**0.8**	**0.8**	**0.3**	**0.0**	**0.5**	**0.9**	**0.8**	**1.0**	**0.5**	**0.0**	**0.9**	**0.5**	**0.0**	**0.5**	**1.8**	**0.9**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**20.83**
ccum. Tot.	0	3	5	7	7	8	10	11	12	12	13	13	13	14	15	16	16	16	17	18	18	18	20	21	21	21	21	21	21	21	21	21	21	21	21

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Table 22. Projected Output vs Actual Planted Output (tons)

	DEC				JAN 96					FEB 96				MAR 96				APR					MAY 96				JUN 96				JUL 96		
Date	4	11	18	25	1	8	15	22	29	5	12	19	26	4	11	18	25	1	8	15	22	29	6	13	20	27	3	10	17	24	1	8	
Week No.	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	TOTAL
ROP																																	
epper																																	
rojected	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	5.9	10.0	12.8	13.2	13.1	12.4	9.9	7.5	4.9	2.7	1.8	0.4	0.5	0.6	0.5	0.4		98.6
otal Output	0.0	0.0	1.1	1.4	1.8	2.3	2.2	2.9	2.6	2.1	2.0	1.0	1.1	1.1	1.1	0.8	0.4	0.7	0.4	0.5	0.4	0.2	0.5	0.4	0.5	0.4	0.2	0.2	0.0	0.0	0.0		28.2
North	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
S/S	0.0	0.0	1.1	1.4	1.8	2.3	2.2	2.9	2.6	2.1	2.0	1.0	1.1	1.1	1.1	0.8	0.4	0.7	0.4	0.5	0.4	0.2	0.5	0.4	0.5	0.4	0.2	0.2	0.0	0.0	0.0		28.2
abbage																																	
rojected	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	5.6	8.1	11.3	10.6	7.5	5.0	2.5	0.6	0.6	0.6	1.6	1.6	1.6	1.6	0.0	0.0	61.3
otal Output	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	3.8	3.8	3.8	2.2	0.0	0.0	0.0	0.0	0.0	3.8	6.9	6.9	6.9	3.1	0.0	0.0	0.0	0.0	0.0	42.5
North	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	3.8	3.8	3.8	2.2	0.0	0.0	0.0	0.0	0.0	3.8	6.9	6.9	6.9	3.1	0.0	0.0	0.0	0.0	0.0	42.5
arrots																																	
rojected	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.6	0.8	1.1	1.4	1.7	1.8	1.5	1.5	1.5	1.2	1.0	0.6	0.6	0.6	0.3	0.0	0.0	0.0	16.5
otal Output	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
North	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
eets																																	
rojected	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.7	0.7	0.7	0.2	0.6	0.6	0.6	0.0	0.0	0.2	0.2	0.5	0.3	0.3	0.0	0.0	0.0					6.0
otal Output	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.0	0.0	0.2	0.2	0.3	0.2	0.2	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					2.2
North	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.0	0.0	0.2	0.2	0.3	0.2	0.2	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					2.2
S/S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					0.0
hillies																																	
rojected	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.2	2.8	2.8	2.2	1.8	1.2	0.5	0.6	1.1	1.1	1.3	1.0	0.8	0.5	0.1	0.1	0.0	0.0		21.0
otal Output	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0		1.0
North	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
S/S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0		1.0

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Table 22. Projected Output vs Actual Planted Output (tons)

	DEC				JAN 96					FEB 96				MAR 96				APR					MAY 96				JUN 96				JUL 96		
Date	4	11	18	25	1	8	15	22	29	5	12	19	26	4	11	18	25	1	8	15	22	29	6	13	20	27	3	10	17	24	1	8	
Week No.	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	TOTAL
omato F																																	
rojected	4.6	4.6	4.2	3.0	1.4	0.4	0.0	0.0	0.1	0.2	0.4	0.5	0.9	1.6	3.3	6.8	11.1	15.4	18.1	17.7	15.3	13.3	12.8	13.0	13.2	12.2	10.3	7.8	5.1	2.7	1.0		201.0
otal Output	1.7	6.9	15.1	23.4	27.4	25.1	19.3	15.0	13.5	12.1	10.1	7.3	4.9	3.8	4.7	7.3	9.7	10.5	9.5	7.9	7.2	7.7	8.6	9.6	9.8	7.8	4.4	1.6	0.2	0.0	0.0		292.0
North	0.1	0.4	0.6	0.8	1.1	1.6	2.1	2.6	2.3	1.4	0.8	0.5	0.6	0.8	1.1	1.5	1.5	1.2	0.8	0.6	0.7	0.8	0.7	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0		25.0
S/S	1.6	6.6	14.5	22.7	26.3	23.5	17.2	12.4	11.2	10.7	9.3	6.8	4.3	3.0	3.6	5.8	8.1	9.3	8.7	7.2	6.5	7.0	8.0	9.2	9.6	7.8	4.4	1.6	0.2	0.0	0.0		267.0
utternut																																	
rojected	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	5.0	5.5	4.6	3.2	5.2	7.5	8.7	7.5	5.1	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	54.8
otal Output	0.0	2.5	2.5	2.6	0.0	1.5	4.0	5.0	3.5	2.5	1.5	1.5	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.0
North	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
S/S	0.0	2.5	2.5	2.6	0.0	0.5	3.0	4.0	3.5	2.5	1.5	1.5	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.0
reen Beans																																	
rojected	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.5	1.0	1.0	0.5	0.5	2.0	2.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					11.0
otal Output	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					2.5
North	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					0.0
S/S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					2.5
omato N																																	
rojected	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.8	4.2	6.8	8.1		21.3
otal Output	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
North	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
S/S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Vatermelon																																	
rojected	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	2.1	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3
otal Output	0.0	0.0	0.0	0.0	0.0	0.0	2.5	4.5	4.6	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.8
North	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S/S	0.0	0.0	0.0	0.0	0.0	0.0	2.5	4.5	4.6	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.8
Total Prog.	**4.6**	**4.6**	**4.2**	**3.0**	**1.4**	**0.4**	**0.0**	**0.0**	**0.1**	**1.4**	**2.1**	**2.2**	**3.5**	**8.6**	**16.6**	**29.0**	**37.7**	**44.3**	**50.6**	**51.2**	**46.2**	**38.5**	**30.9**	**22.6**	**18.8**	**16.1**	**13.7**	**12.4**	**11.9**	**11.6**	**9.5**	**0.0**	**497.6**
ccum. Tot.	5	9	13	16	18	18	18	18	18	20	22	24	27	36	53	82	119	164	214	265	312	350	381	404	423	439	452	465	476	488	498	498	498
ot. Planted	**1.7**	**9.6**	**18.8**	**27.6**	**29.3**	**29.0**	**28.1**	**27.5**	**24.2**	**19.0**	**13.7**	**10.2**	**10.0**	**11.1**	**10.5**	**12.0**	**12.4**	**11.3**	**10.1**	**8.6**	**7.9**	**8.1**	**13.0**	**16.9**	**17.1**	**15.1**	**7.7**	**1.8**	**0.2**	**0.0**	**0.0**	**0.0**	**412.2**
ccum. Tot.	2	11	30	58	87	116	144	171	196	215	228	238	248	260	270	282	294	306	316	324	332	340	353	370	387	402	410	412	412	412	412	412	412

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Table 23. Field Assistant Projections for Fresh Tomato 20 kg Lugs

	A	B	C	D	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR
1				t/ha						20KG LUGS PER WEEK																								
2	NO	Farmer	Location	est.	Area	4-Dec	11-Dec	18-Dec	25-Dec	1-Jan	8-Jan	15-Jan	22-Jan	29-Jan	5-Feb	12-Feb	19-Feb	26-Feb	4-Mar	11-Mar	18-Mar	25-Mar	1-Apr	8-Apr	15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun
3	U10	Diamini Zeblon	Siphofaneni	20																														
4	U107	Mamba Phillip	Siphofaneni	10	0.10																													
5	U109	Hlabekisa Veg. Assoc.	Siphofaneni	20														2	6	10	13	11	6	2										
6	U12	Matse Joseph	Siphofaneni		0.20																													
7	U14	Ndwandwe Obed	Siphofaneni	20	0.25						10	30	50	65	55	30	10																	
8	U14	Ndwandwe Obed	Siphofaneni		0.25																													
9	U14	Ndwandwe Obed	Siphofaneni	20	0.25																													
10	U15	Masango Philemon	Siphofaneni	20																								10	30	50	65	55	30	10
11	U16	Diamini Mthinini	Siphofaneni	20	0.25																10	30	50	65	55	30	10							
12	U17	Diamini Patrick	Siphofaneni	20	0.25																			10	30	50	65	55	30	10				
13	U17	Diamini Patrick	Siphofaneni	20	0.10								4	12	20	26	22	12	4															
14	U17	Diamini Patrick	Siphofaneni	20	0.25																						10	30	50	65	55	30	10	
15	U19	Mamba Gideon	Siphofaneni		0.25																													
16	U19	Mavimbela Elliot	Siphofaneni		0.25																													
17	U25	Tsabedze Johannes	Siphofaneni		0.25																													
18	U25	Tsabedze Johannes	Siphofaneni		0.25																													
19	U25	Tsabedze Johannes	Siphofaneni	20	0.10																													
20	U27	Mahlobo Petros	Siphofaneni	20	0.25																						4	12	20	26	22	12	4	
21	U27	Mahlobo Petros	Siphofaneni	20	0.50																													
22	U27	Mahlobo Petros	Siphofaneni	20	0.50																					20	60	100	130	110	60	20		
23	U28	Matsenjwa Elijah	Siphofaneni	20	0.25																		20	60	100	130	110	60	20					
24	U28	Matsenjwa Elijah	Siphofaneni		0.25																		10	30	50	65	55	30	10					
25	U29	Mamba Gideon	Siphofaneni		0.25																													
26	U30	Gamedze Mhlanganyelwa	Siphofaneni	20	0.25		10	30	50	65	55	30	10																					
27	U30	Gamedze Mhlanganyelwa	Siphofaneni	20	0.25		10	30	50	65	55	30	10																					
28	U30	Gamedze Mhlanganyelwa	Siphofaneni	20	0.25						10	30	50	65	55	30	10																	
29	U33	Ndzinisa Bertinah	Siphofaneni		0.25																													
30	U33	Ndzinisa Bertinah	Siphofaneni	20	0.25															10	30	50	65	55	30	10								
31	U33	Ndzinisa Bertinah	Siphofaneni		0.25																													
32	U34	Thwala Obed	Sithobela	20																														
33	U34	Thwala Obed	Sithobela	20	0.50								20	60	100	130	110	60	20															
34	U35	Diamini Micah	Sithobela		0.25																													
35	U35	Diamini Micah	Sithobela		0.25																													
36	U35	Diamini Micah	Sithobela	20	0.20							8	24	40	52	44	24	8																
37	U35	Diamini Micah	Sithobela	20	0.50																													
38	U38	Ngwenya Obed	Sithobela	20																							20	60	100	130	110	60	20	
39	U38	Diamini Philemon	Siphofaneni	20																														
40	U38	Diamini Philemon	Siphofaneni	20	0.20																													
41	U43	Myeni Daniel	Siphofaneni		0.20															8	24	40	52	44	24	8								
42	U43	Myeni Daniel	Siphofaneni		0.10																													
43	U46	Mamba Elias	Sithobela		0.20																													
44	U46	Mamba Elias	Sithobela	20																														
45	U48	Mamba Joseph	Sithobela		0.20																													
46	U48	Mamba Joseph	Sithobela	20																														
47	U5	Mamba Vincent	Sithobela	20	0.30		12	36	60	78	66	36	12																					
48	U5	Mamba Vincent	Sithobela	20																														
49	U5	Mamba Vincent	Sithobela	20	0.25		10	30	50	65	55	30	10																					
50	U51	Khumalo Simon	Sithobela	20																														
51	U53	Madlenya Irr. Scheme	Siphofaneni		0.25																													
52	U53	Madlenya Irr. Scheme	Siphofaneni		0.25																													
53	U55	Diamini Mfelani	Siphofaneni	20																														
54	U57	Makhalphi Samuel	Siphofaneni	20	0.25																													
55	U59	Ngcemphale Hezekiel	Siphofaneni	20															10	30	50	65	55	30	10									
56	U64	Khumalo Aaron	Sithobela	20																														
57	U64	Khumalo Aaron	Sithobela	20	0.20			8	24	40	52	44	24	8																				
58	U7	Ndzimandze Makhaya	Siphofaneni		0.25																													
59	U7	Ndzimandze Makhaya	Siphofaneni		0.25																													
60	U72	Shongwe Daniel	Sithobela	20																														
61	U72	Shongwe Daniel	Sithobela		0.20																													
62	U73	Matfula Enock	Siphofaneni	20																														
63	U8	Mngomezulu Churchill	Sithobela	10	0.25	5	15	25	33	28	15	5																						
64	U8	Mngomezulu Churchill	Sithobela	10	0.20			4	12	20	26	22	12	4																				
65	U81	Diamini Bhutana	Sithobela	20	0.25																													
66	U9	Mamba Mntshintshwa	Siphofaneni	20	0.50																						10	30	50	65	55	30	10	
67	U93	Maziya Ndumiso	Siphofaneni	20	0.10														20	60	100	130	110	60	20									
68	U93	Maziya Ndumiso	Siphofaneni	20																4	12	20	26	22	12	4								
69	U93	Maziya Ndumiso	Siphofaneni		0.20																													
70	U94	Msibi Joseph	Sithobela	20																														

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Table 23. Field Assistant Projections for Fresh Tomato 20 kg Lugs

	A	B	C	D	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR
1				l/ha						20KG LUGS PER WEEK																								
2	NO	Farmer	Location	est.	Area	4-Dec	11-Dec	18-Dec	25-Dec	1-Jan	8-Jan	15-Jan	22-Jan	29-Jan	5-Feb	12-Feb	19-Feb	26-Feb	4-Mar	11-Mar	18-Mar	25-Mar	1-Apr	8-Apr	15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun
71	U95	Diamini Mfaneni	Siphofaneni	20	0.25									10	30	50	65	55	30	10														
72	U96	Mamba Mgcibelo	Sikhobela	20																														
73	U97	Sikhondze Solomon	Sithobela	5	0.25															3	8	13	16	14	8	3								
74	U97	Sikhondze Solomon	Sithobela	20	0.10																						4	12	20	26	22	12	4	
75		Vilane Mbongeni	Siphofaneni	20	0.20			8	24	40	52	44	24	8																				
76		Vilane Mbongeni	Siphofaneni	20																														
77																																		
78																																		
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Table 23. Field Assistant Projections for Fresh Tomato 20 kg Lugs

	A	B	C	D	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR
1										20KG LUGS PER WEEK																							
2	NO	Farmer	Location	I/ha est.	Area	4-Dec	11-Dec	18-Dec	25-Dec	1-Jan	8-Jan	15-Jan	22-Jan	29-Jan	5-Feb	12-Feb	19-Feb	26-Feb	4-Mar	11-Mar	18-Mar	25-Mar	1-Apr	8-Apr	15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun
139																																		
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178																																		
179																																		
180		TOTALS				5	57	171	303	401	396	309	250	272	312	310	241	137	90	135	247	359	410	392	339	320	348	399	460	482	389	219	78	10

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Table 24. Overall Harvest Projection Summary Sheet

CROP	LUG / BAG KG	TOTAL AREA	1995 4-Dec	11-Dec	18-Dec	25-Dec	1996 1-Jan	8-Jan	15-Jan	22-Jan	29-Jan	5-Feb	12-Feb	19-Feb	26-Feb	4-Mar	11-Mar	18-Mar	25-Mar	1-Apr	8-Apr	15-Apr	22-Apr	29-Apr	TOTAL
eets	10			17	17	17	17	17	17			17	17	33	17	17		7	7	7					220
utternut	10	2.00		248	248	255		149	396	500	354	251	149	153	99	99	102								3000
abbage	20																								
arrots	10																								
reen Beans	6	0.25													104	104									208
hillies	10	0.10																			15	20	25		60
epper	11	1.86			95	127	159	209	186	245	209	173	168	82	103	104	95	76	38	65	36	45	36		2255
Vatermelon	1																								
omato F	20	15.60	11	75	201	342	454	474	415	380	386	384	350	267	167	128	189	321	436	471	434	371	354		6607
omato N	20																								
	TOTAL	19.81																							

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ANNEX F

Marketing Information

- Marketing Agent and Contacts
- Monthly Market Facts and Price Information for Selected Crops at Encabeni Market;

  Butternut
  Cabbage
  Carrots
  Green Pepper
  Onion
  Tomato

Table 25. Marketing Agents and Contacts

COMPANY / AGENT	CONTACT	POSITION	CONTACT NUMBER
Swaziland:			
Encabeni Fresh Produce Market		Market Manager	84088
R. Gastaldi (Agency)	Mariano Barajas	Manager	84597
Freshpac (Agency)	Gielie Vermeulen	Director	85437
Crop King (Agency)	J. Rundell	Director	84613
Philani Fruit & Vegetables	Ernest Hlophe	Director	85319
New Mid-way Wholesalers	T. D. Maharaj	Manager	61889
Nelspruit:			
Nelpruit Fresh Produce Market	Chris Swart	Director	071311-53880
Laeveld Markagente	George & Enock	Salesmen	071311-53645
Pretoria:			
Pretoria Fresh Produce Market	Christo Groenewald	General Manager	0712-326-0972
	Charles Hamilton	Dep Gen Manager	
	Erika	Price Information	
Protea Market Agents	Louis Coetzee	Managing Director	0712-326-8821
Hectorspruit:			
Prodcure Lowveld (Pty) Ltd.	Renier van Rensburg	Manager	071313-4241
Johannesburg:			
Johannesburg Fresh Produce Market	Daan Spengler	Director	0711-613-2051
	Monique van Jaarsveld	Public Relations Officer	0711-613-2049
FCA Market Agent	Pieter Nel	Director	0711-613-8611
Pack House	Joe Mostert	Manager	0711-613-6054
Dapper Agencies (Pty) Ltd	George Mazam	Managing Director	0711-942-1640
Fresh Cut (Pty) Sanrio Fruits	Mario Nortje	Director	0711-613-3665
Freshmark	Dr Johann van Deventer	Business Development Manager	0711-613-6053

Table 25 Continued. Marketing Agents and Contacts

COMPANY / AGENT	CONTACT	POSITION	CONTACT NUMBER
Durban:			
Durban Fresh Produce	Kobus Rademeyer	Executive Director	0731-465-1691
Duiker Market Agents (Pty) Ltd.	Johan de Bruin	Managing Director	0731-465-1212
Peter & Co. Market Agents	Joe Peter	Managing Director	0731-465-3032
Freshmark (Pty) Ltd.	Lee Smith	Manager	0731-902-4260
Phoenix Farm Produce Market	Jay Sookoo	Director	0731-507-58610
B.L. Boodhoo & Sons cc	Suren Bisnath	Manager	0731-465-6550 0731-84-7406 A.H.

Market Facts: Butternut

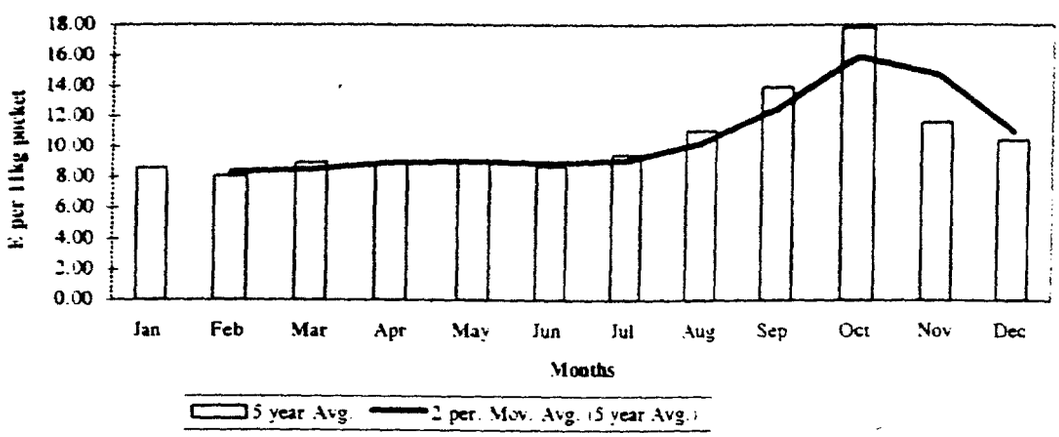
Seasonality:

Harvest Periods	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
high veld	■	■	■	■	■						■	■
mid veld	■	■	■	■	■	■	■	■	■	■	■	■
low veld					■	■	■	■	■	■		

Market Price Pattern (Encabeni):

E per 11kg	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1993	7.67	7.48	8.53	8.53	9.51	9.18	8.77	10.19	12.31	20.10	7.17	7.18
1992	9.20	8.96	9.28	8.96	9.97	10.37	10.66	13.06	17.45	19.31	13.56	10.61
1991	9.47	8.76	9.57	10.60	10.36	10.84	11.46	12.30	14.75	18.51	11.84	9.34
1990	10.86	9.92	11.19	9.01	8.74	6.46	7.36	9.91	14.99	17.42	14.02	10.34
1989	5.82	5.25	6.13	7.54	7.00	6.63	9.06	9.82	10.16	13.81	11.28	14.76
5 year Avg.	8.60	8.07	8.94	8.93	9.12	8.70	9.46	11.06	13.93	17.83	11.57	10.45

Yearly Price Pattern - Butternut



Sales (Encabeni):

11 kg pocket

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1993	1273	909	909	818	1091	636.4	1364	1091	364	545	1727	3091
of which Swazi:	1273	545		91	455	182					182	545

Yearly Average		1152	pockets (11kg) per month
Low period	Sep to Oct	455	pockets (11kg) per month
High period	Nov to Dec	2409	pockets (11kg) per month

Market Price Expectation:

Best Months:	***September to November***	E11 per pocket	***peak in October***	E 16
Worst Months:	***January to July***	E 8 per pocket		
Price difference:	(between best and worst months)	38 percent		

1 The figures used in this compilation come from NAMBOARD, MAU, and CAPM (Seasonality).

2 Market Price expectation was developed based on an analysis of 5-year historical average monthly prices in Encabeni, and are based on the grade and packaging requirements of the Encabeni market.

[illegible] In addition to the cost of packaging, transportation costs, market fees (5%), and

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Market Facts: Cabbage

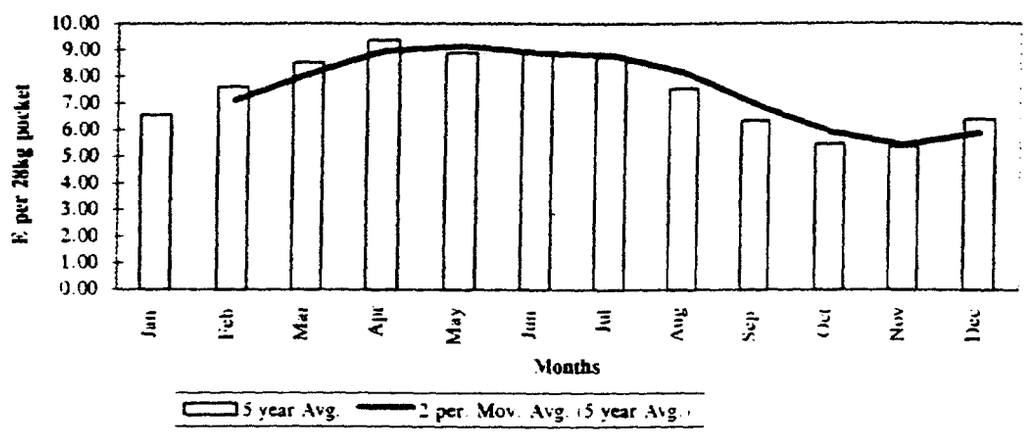
Seasonality:

Harvest Periods	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
high veld	■	■	■	■	■	■	■	■	■	■	■	■
mid veld	■	■	■	■	■	■	■	■	■	■	■	■
low veld							■	■	■	■	■	

Market Price Pattern (Encabeni):

E per 28 kg	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1993	7.17	7.57	9.06	10.48	8.47	8.17	7.44	6.00	4.47	3.94	4.08	4.31
1992	5.77	7.60	10.08	11.68	11.48	12.84	14.26	12.68	10.65	8.47	7.98	7.84
1991	5.65	6.90	8.15	11.12	12.62	12.20	10.38	7.90	6.49	5.09	5.56	5.86
1990	9.65	10.91	9.79	8.25	7.19	6.48	6.42	5.92	5.43	4.84	4.63	5.52
1989	4.61	5.20	5.58	5.36	4.70	4.65	5.21	5.26	4.75	5.07	4.55	8.55
5 year Avg.	6.57	7.64	8.53	9.38	8.89	8.87	8.74	7.55	6.36	5.48	5.36	6.42

Yearly Price Pattern - Cabbage



Sales (Encabeni):

28 kg pocket

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1993	6643	7964	7107	11893	11286	9071	13393	6107	4607	4643	3250	3071
of which Swazi:	4964	2429	1893	3607	1000	6000	10036	5750	4607	4607	3214	3000

Yearly Average		7420	pockets (28kg) per month
Low period	Sep to Dec	3893	pockets (28kg) per month
High period	Jan to Aug	9183	pockets (28kg) per month

Market Price Expectation:

Best Months:	***February to July***	E 7 to 9 per pocket
Worst Months:	***September to December***	E 5 per pocket
Price difference:	(between best and worst months)	80 percent

1 The figures used in this compilation come from NAMBOARD, MAU, and CAPM (Seasonality).

2 Market Price expectation was developed based on an analysis of 5-year historical average monthly prices in Encabeni, . and are based on the grade and packaging requirements of the Encabeni market.

Market Facts: Carrots

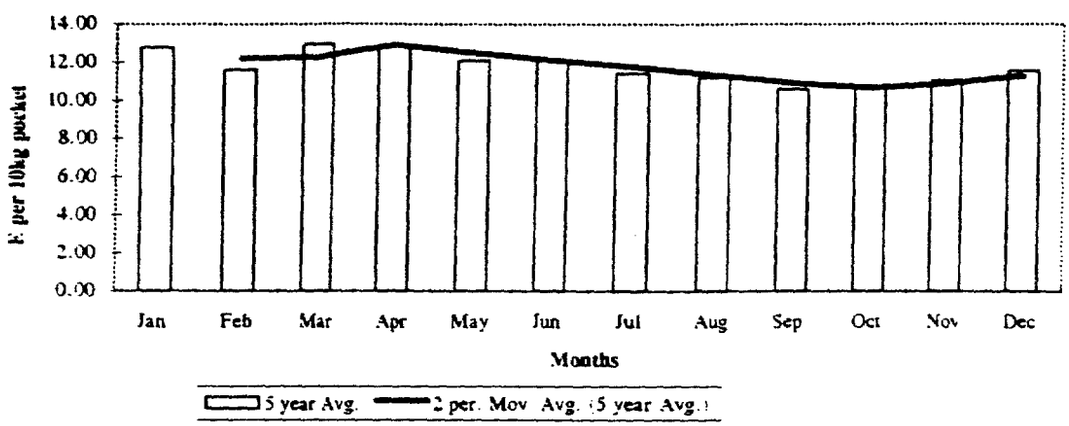
Seasonality:

Harvest Periods	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
high veld												
mid veld												
low veld												

Market Price Pattern (Encabeni):

E per 10kg	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1993	14.19	14.06	13.60	12.43	10.44	10.03	9.32	10.50	9.50	10.47	6.18	7.41
1992	13.19	11.83	13.23	13.07	13.67	14.51	14.58	12.91	11.38	10.88	13.12	13.35
1991	12.29	10.12	13.43	15.15	14.32	12.56	10.50	9.89	9.34	8.25	11.58	11.76
1990	15.67	12.82	15.46	13.99	12.89	12.98	11.80	11.07	11.92	11.61	11.21	12.68
1989	8.57	9.20	8.90	9.66	9.07	10.31	10.81	11.62	10.66	12.08	13.06	12.43
5 year Avg.	12.78	11.61	12.92	12.86	12.08	12.08	11.40	11.20	10.56	10.66	11.03	11.53

Yearly Price Pattern - Carrots



Sales (Encabeni):

10 kg pocket

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1993	1600	1700	2700	5100	3800	3900	4400	4100	2500	2600	5700	12100
of which Swazi:	0	100	0	0	200	600	0	800	200	1000	300	200

Yearly Average 4183 pockets (10kg) per month

Low period Sep to Oct and Jan, Feb

High period Nov to Dec 8900 pockets (10kg) per month

Market Price Expectation:

Best Months:	***January to April***	**E12 per pocket**
Worst Months:	***July to December***	**E 10 per pocket**
Price difference:	**(between best and worst months)**	**20 percent**

1 The figures used in this compilation come from NAMBOARD, MAU, and CAPM (Seasonality).

2 Market Price expectation was developed based on an analysis of 5-year historical average monthly prices in Encabeni, . and are based on the grade and packaging requirements of the Encabeni market.

3 [illegible] selling at Encabeni, in addition to the cost of packaging, transportation costs, market fees (5%), and

Market Facts: Green Pepper

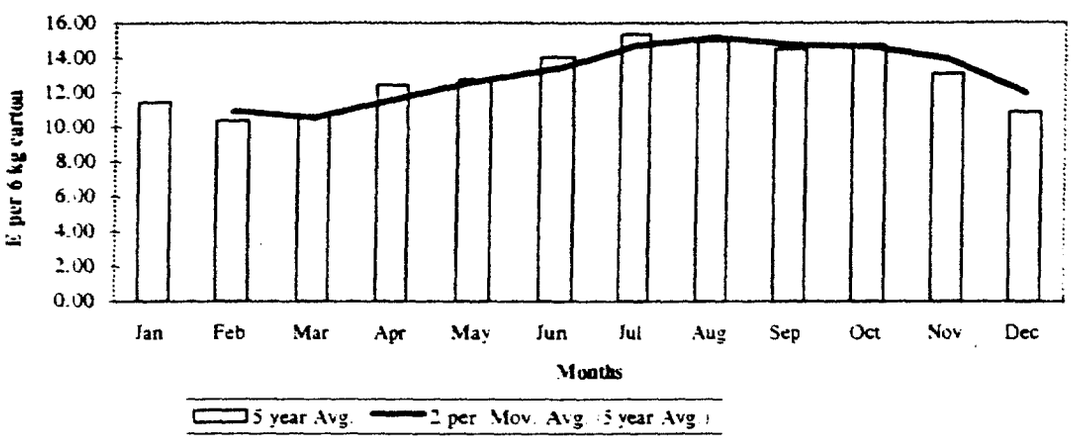
Seasonality:

Harvest Periods	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
high veld	■	■	■	■	■						■	■
mid veld	■	■	■	■	■	■	■	■			■	■
low veld	■	■	■	■	■	■	■	■	■	■	■	■

Market Price Pattern (Encabeni):

E per 6kg	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1993	12.43	11.67	11.49	10.04	11.70	15.09	17.98	11.33	11.21	13.15	6.92	6.55
1992	11.91			20.59	17.98	17.87	17.41	16.59	17.79	16.38	17.65	13.77
1991	9.68	8.51	9.00	11.13	11.48	12.37	14.25	15.24	14.07	12.74	13.30	9.90
1990	15.79	14.62	13.85	11.80	14.21	15.22	18.17	21.06	16.25	14.85	15.60	9.31
1989	7.40	6.68	8.34	8.68	8.39	9.68	9.03	10.67	13.17	16.60	11.89	14.73
5 year Avg.	11.44	10.37	10.67	12.45	12.75	14.05	15.37	14.98	14.50	14.74	13.07	10.85

Yearly Price Pattern - Green Peppers



Sales (Encabeni):

6 kg cartons

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1993	396	212	137	540	453	480	509	938	377	609	659	606

Yearly Average	493	cartons (6kg) per month
Low period Jan to March	248	cartons (6kg) per month
High period Aug. to Dec	638	cartons (6kg) per month

Market Price Expectation:

Best Months:	***July to October***	**E 14 per 6kg carton**
Worst Months:	***February to March***	**E 10 per 6kg carton**
Price difference:	**(between best and worst months)**	**40 percent**

1 The figures used in this compilation come from NAMBOARD, MAU, and CAPM (Seasonality).

2 Market Price expectation was developed based on an analysis of 5-year historical average monthly prices in Encabeni, and are based on the grade and packaging requirements of the Encabeni market.

[illegible] the cost of packaging, transportation costs, market fees (5%), and

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Market Facts: Onions

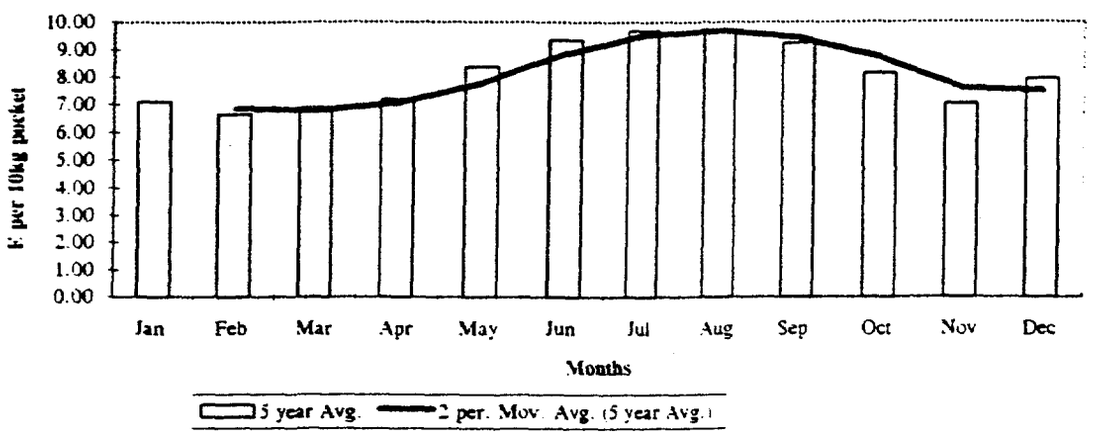
Seasonality:

Harvest Periods	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
high veld												
mid veld												
low veld												

Market Price Pattern (Encabeni):

E per 10kg	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1993	7.02	7.32	8.30	9.19	9.93	10.07	8.25	7.73	7.63	8.79	9.27	9.86
1992	8.17	6.75	7.35	7.86	11.31	12.34	13.31	14.85	12.73	8.27	6.29	6.82
1991	6.05	6.32	6.23	5.72	5.48	7.45	8.41	8.02	6.41	6.82	6.38	8.94
1990	8.15	6.98	6.86	6.94	8.33	9.39	9.53	7.77	6.96	5.53	4.97	5.08
1989	6.08	5.79	5.66	6.15	6.67	7.46	8.93	9.81	12.40	11.21	8.21	8.96
5 year Avg.	7.09	6.63	6.88	7.17	8.34	9.34	9.69	9.64	9.23	8.12	7.02	7.93

Yearly Price Pattern - Onion



Sales (Encabeni):

10 kg pocket

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1993	13000	9800	10000	17400	12700	19900	17200	14300	12100	8700	7500	19300
of which Swazi:	0	100	0	0	0	0	0	1000	800	500	200	600

Yearly Average 13492 pockets (10kg) per month
Low period Feb,Mar Oct,Nov
High period Dec 19300 pockets (10kg) per month

Market Price Expectation:

Best Months:	***June to September***	E 9 per pocket
Worst Months:	***February to April***	E 7 per pocket
Price difference:	(between best and worst months)	29 percent

1 The figures used in this compilation come from NAMBOARD, MAU, and CAPM (Seasonality).

2 Market Price expectation was developed based on an analysis of 5-year historical average monthly prices in Encabeni. .

Market Facts: Tomato

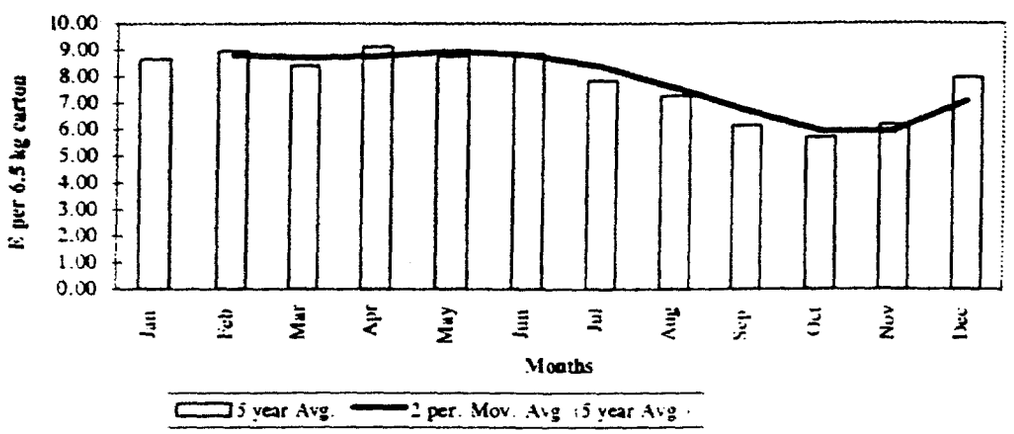
Seasonality:

Harvest Periods	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
high veld	■	■	■	■						■	■	■
mid veld	■	■	■	■	■	■	■	■	■	■	■	■
low veld	■				■	■	■	■	■	■	■	■

Market Price Pattern (Encabeni):

E per 6.5kg	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1993	12.02	9.73	7.34	7.55	8.58	8.67	6.04	6.72	4.16	3.28	3.70	6.28
1992	8.62	8.90	11.12	14.12	10.85	9.50	9.59	8.72	8.49	7.55	7.11	11.30
1991	8.84	9.65	9.46	11.07	9.70	9.14	8.55	6.91	6.50	6.06	7.89	7.85
1990	9.06	11.27	8.17	6.40	7.78	9.53	8.50	8.11	6.72	5.96	6.50	7.96
1989	4.73	5.33	5.88	6.45	6.84	7.41	6.55	5.92	4.92	5.69	5.71	6.46
5 year Avg.	8.65	8.98	8.39	9.12	8.75	8.85	7.85	7.28	6.16	5.71	6.18	7.97

Yearly Price Pattern - Tomatoes



Sales (Encabeni):

6.5 kg cartons

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1993	1077	2000	1385	1846	2308	2923	7692	6154	3538	3846	4000	4154
of which Swazi:	154	308	615	462	1692	1846	4769	4923	3385	3538	615	1538

Yearly Average		3410 cartons (6.5kg) per month
Low period	Jan to May	1723 cartons (6.5kg) per month
High period	July to Dec	4897 cartons (6.5kg) per month

Market Price Expectation:

Best Months:	***December to June***	**E 9 per 6.5kg carton**
Worst Months:	***September to November***	**E 6 per 6.5kg carton**
Price difference:	**(between best and worst months)**	**50 percent**

1 The figures used in this compilation come from NAMBOARD, MAU, and CAPM (Seasonality).

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