

The Lowa Marketing Co-operative Ltd of Goroka

D. NICHOLLS, R.D.O., Goroka

The Lowa Marketing Co-operative is an organization formed by indigenous farmers (with the assistance of DASF) to help them sell their produce. There is considerable potential for sale of kaukau and other staple foods in Goroka, particularly to institutions such as the hospital, schools and the Teachers College.

Subsistence agriculture in this area is based on kaukau (sweet potato—*Ipomoea batatas*) with subsidiary crops of taro, yams, manioc (tapioca), bananas, corn and many green-leaf plants. Coffee supplies a substantial part of the income. On average there are 66 coffee bushes per person, which gives an income of about \$10 per year. For most people this is about half their cash income for the year.

The number of people living in Goroka is rising fast, and this means the amount of fresh vegetables consumed is also rising fast. The

Eastern Highlands Co-ordinating Committee asked DASF to see what could be done to increase the production of foodstuffs locally and to decrease the importation of other foods, especially rice.

Local farmers who had started to grow kaukau for sale in Goroka found they had marketing problems, and in 1968 they asked DASF to help them. Other local producers were drawn into the meetings by the original members until a group of 80 farmers was involved, and they were holding monthly meetings. Associated with



Plate I.—Kaukau is almost always grown on mounds in the Highlands

(Photo: D.I.E.S)



(Photo: D.I.E.S.)

Plate II.—Tubers are washed before being collected by the Co-operative truck

the major problem of selling were other problems of capital required for fencing and for tractors, and purely agricultural problems also.

The aim of people in these meetings was:—

(1) To satisfy completely the kaukau requirements of the Government establishments in Goroka.

(2) To market their produce through a co-operative marketing organization 'set up' with their own funds.

To achieve the first objective, it was necessary to increase production of kaukau considerably, especially in view of the fact that production

normally is seasonal. This meant more land had to be gardened, and with pigs being allowed to graze freely around villages, a lot of money and effort were needed to fence in the new areas. Wetter ground near creeks and the river also had to be enclosed so that planting could take place in the dry season.

To achieve the second goal, it was estimated that an investment of \$50 per person would be required. It was decided to delay the collection of this money until all the members had received payment for the sale of their coffee for the season.

TRIAL CO-OPERATIVE

In the interim period, DASF conducted a "trial co-operative". The system of marketing was similar to that intended for the co-operative when it was set up. It worked like this—

The grower harvested his kaukau just before the truck was expected, cleaned the tubers, and put them into hessian bags. Although garden weighing was tried for a short period, produce was mainly weighed (and sometimes sorted) in the store. Payment was by cheque from the DASF office. Only good quality kaukau was accepted. The price paid to the grower was

1 cent per lb and the price paid by the buyer in Goroka was $1\frac{1}{2}$ cents per lb. The margin of half a cent per lb was sufficient to cover costs of the truck, the driver's and buyer's wages and other overhead expenses.

This trial period provided answers to some questions which had been raised:—

(1) Will the growers be content with a price of 1 cent per lb at their gardens instead of $1\frac{1}{2}$ cents per lb at Goroka market?

(2) Will the growers understand that only good quality kaukau can be sold even if they are not personally facing the buyers?



(Photo: D.I.E.S.)

Plate III.—A wide variety of foods is sold at Goroka Market

(3) Will the growers realize that they must harvest a lot of kaukau in one day to fill up the truck?

(4) Will they be able to maintain supplies of kaukau through both the wet and dry seasons?

1. Price

The price of 1 cent per lb at the village was fairly well received, although some of the older men complained. The reason for the easy acceptance of the price may have been that a few months earlier large quantities of kaukau were bought at 1 cent per lb by patrol officers, for use at a large "singsing" arranged for the visit of the Duke and Duchess of Kent. Many village people sold kaukau to the Government on that occasion. Within a few weeks, the price was accepted as standard and was not questioned, even though they knew that this was lower than the price they could get if they took the produce to Goroka themselves (to the market).

2. Quality

In group meetings before sales actually commenced, everyone agreed that only good tubers could be offered for sale. This worked out in practice fairly well. The tubers were all inspected before being accepted, and any unacceptable tubers were returned to the grower. Other members of the group had strong words for defaulters and some shame was attached to the receipt of rejects. Within a few weeks of operation, there were very few tubers of poor quality being offered for sale.

3. Large Quantities

The question of large quantities being available on one day was a much harder problem. Initially the produce available was only that surplus to subsistence requirements, and in very small quantities in any garden. Farmers were willing to harvest an area completely to fill the bags but their ability to plant sufficient quantities in advance was in question. For this reason, throughout the whole period of the "trial co-operative" the trucks were never completely filled so the cost of transport per lb was higher than it should have been.

4. Continuity of Supply

This is still a serious problem; it requires continuous effort by DASF extension officers to encourage the people to maintain a steady supply of sweet potato throughout the year. During the trial period the supply ceased in November, 1969 and no more was available until the

following March. During periods of general shortage, villagers may be obliged to give food to their relatives rather than keep up the supplies for sale through the co-operative. Such shortages need to be allowed for when planning dry season plantings. In general, such shortages should mean increased sales for the co-operative.

FORMATION OF COMPANY

Collection of money for shares was made from June to October, 1970 and the meeting to form the company was held in December, 1970. The Loma Marketing Co-operative Ltd was formally registered with the Department of Trade and Industry in February, 1971. There were 80 paid-up members of the co-operative at the time of registration. Of these, 65 members had full voting rights, having invested \$50 or more. These paid-up members represented other relatives who were growers but not members. The total number of growers involved in the scheme was about 250 men (plus wives).

Fencing

The idea of keeping pigs inside a fenced area is contrary to traditional practice in this district, so the best way to stop the pigs eating the kaukau was to put a fence around the kaukau. Fencing thus became an expensive item involving considerable capital outlay. There was a shortage of suitable bush materials, so most clan groups decided on wire fences which can be erected more quickly than traditional fences but are more expensive. Development Bank loans were granted for the purpose. Over 70 loans for market garden enterprises have been approved for members to date.

Cultivation

Mechanical equipment was used on less than 25 per cent of the total area where cash crops were grown. This was mainly ploughing, the ground being broken in preparation for hand cultivation. The remaining 75 per cent was cultivated only by hand, using spades. Hand cultivation was used primarily because no machinery was available, and also because cheaper village labour was available to members through social obligations. All groups, however, have set a goal of cultivation by machinery. The Loma Co-operative is not designed to hire out machinery to its members, nor do the members have the necessary experience to operate tractors safely and efficiently. There is an opening for a local entrepreneur

to start a tractor-operating business, but the members may decide on some other solution to the problem.

Planting Schedules

No form of planting control has been discussed yet. With such a large unsatisfied market for sweet potato the problems of oversupply have not yet arisen. Planning of planting periods is largely determined by the local climate and soil conditions. The well-drained humic soils are suited to planting in the wet season (October to May) while the poorly-drained alluvial soils beside creeks and the river are suited to planting in the dry season (June to September).

The Future

The project is certainly proving successful, and should continue to be a success. When the demand for kaukau in Goroka is met, if the number of members of the Society continues to grow, other cash crops can be planted. There is certainly a market, as yet unsatisfied, for English potatoes (*Solanum tuberosum*). This crop keeps well and can be transported without serious damage so has a great potential. The main problem at present is getting sufficient planting material. A wide range of other vegetables can be grown, but marketing and transport arrangements would have to be carefully checked out before any large-scale plantings were commenced. The main thing is that the farmer members have an organization in which they can talk about their problems and so find the answers for themselves.

Buffalo Research Project

The Animal Industry Branch of the Department has established a Buffalo Research Project at the Sepik Plains Livestock Station, Urimo. The project is part of an overall programme to study the grazing potential of the Sepik Plains using Urimo as the basis of the investigations. This programme is supervised by John Schottler, the acting O.I.C. of the Beef Cattle Research Centre at Erap, and is being carried out by Livestock Officer, Ruki Kalaing and Urimo Station Manager, Rob Shaw.

The object of the research project is to see whether buffalo can be successfully grazed on the natural pastures of the Sepik Plains and, if so, the level of performance which can be expected. The research staff will measure parameters such as growth rate, calving rate, the area of pasture required to support each animal and labour requirements for a small herd. With this information they will then be able to decide whether smallholder farms based on buffalo are likely to be economically successful.

Different management systems for cattle are also being examined at Urimo and the results obtained from the buffalo experiments will enable direct comparisons to be made between cattle and buffalo under the different management systems. It is known that buffalo can digest very poor quality pastures (such as those occurring on the Sepik Plains), but they grow more slowly than cattle and take longer to mature, so that under good pasture conditions cattle are more efficient. The work now being carried out at Urimo will help us to decide whether it will be best to fertilize the ground and plant improved pastures for cattle, or whether we should graze cattle on the natural pastures and supplement the cattle with protein and phosphate, or whether we can simply graze buffalo on the natural grasses without supplementation of any kind.