

What the Loei fruit farmers can achieve (The Nation, Bangkok, 13 April 90)

A "Grade A" mango should weigh at least 310 grammes, be the right colour and preferably with a dull natural coating called a "nuan", have perfect skin and immediately after being picked it should float in a bucket with no more than 20 percent of each fruit above the surface of the water. Without any special care a farmer could expect up to ten percent of his crop to reach this standard. With the right field management annual production can almost double and the proportion of grade A standard can increase to 50 percent. With the right market contacts the farmer can get 40 Baht per kilogram for his best fruit instead of 15-20 Baht for his normal "C grade" production.

The technology involved in this transformation of production quality is relatively simple and inexpensive. The market information is freely available. The difficulty lies in channeling information to farmers in an effective, credible way and giving them some leverage in their negotiations with buyers. The difficulty is all the greater when the farmers are small-scale operators in remote areas whose main farming experience has been to produce 20 or 30 rai of cassava or corn each year without a thought for quality control.

The Fruit Trees Promotion Project in the Northeastern province of Loei was started in 1987 with the objective of tackling these problems. The project was designed by the Bank for Agriculture and Agricultural Cooperatives (BAAC) based on technical data from the Department of Agriculture and with funds from the EEC's programme for crop diversification in the Northeast.

In many ways the project appears to have been successful. It easily exceeded its recruitment target



in the first year and has been extended each year since 1987 to admit more participants. So far 2,000 farmers are involved, they have borrowed 13 million Baht in long-term loans from the BAAC and planted 8,800 rai of fruit trees. Most of the trees are two varieties each of sweet tamarind and mango, but the project also supports linchee, lamyai, jackfruit and bamboo shoots.

This performance is already good by the standards of most attempts to introduce small-holder investment projects in the Northeast. But recruitment and the distribution and planting of seedlings are far from the whole story. The real test will come later this year and in 1991 when the first plantings start to bear reasonable amounts of fruit and the farmers begin to see what income their investment and labour will actually yield, rather than what was predicted three years ago.

Even when farmers have taken the big step of committing some of their scarce land resources to an entirely new activity like fruit trees, they are generally reluctant to spend any more than is absolutely necessary. That, at least, is what project designers have learned to assume. Without guidance, farmers are inclined to select the most marginal areas of their farms for their trees, and plant on slopes with no attention to soil conservation. They may settle for poor quality seedlings and see half of them die within a month of planting. Without training and continuing on-farm support they are apt to skimp on inputs like fertilizer and crucial activities like regular watering. They may not fully appreciate the need for mulching, to retain moisture in the soil during the long dry season; or pruning; or keeping the grass under control so as to minimize the risk of fire; or covering each fruit with newspaper as it ripens to protect the skin.

These activities, though simple enough in





themselves, make the difference between a genuinely successful project and one which exists only on paper and in the minds of administrators. The problem for BAAC is how to design a project administration system which will not only deliver the training, the inputs and the on-farm follow-up but which will also give the farmers the contacts and the confidence to continue and expand their operations on their own account. How can this be done most effectively?

Mr Warapong Jirawongrapha, through his company Racha Kaset, made the first attempt to solve this problem in Loei. He organised a province-wide farmers' club, a semi-formal organisation which meets twice a year for talks by visiting fruit experts, mainly from the universities or government research institutes. The 1,000 club or "chom rom" members get free technical brochures describing methods of producing good quality mango and tamarind.

"But how can you learn anything useful in a meeting with several hundred people?" asks Mr Had Bunnao, one of the original members. "They ask us to read the documents and take notes, but not many people do it. Then afterwards we forget the details."

The BAAC branch in Loei selected 38 of the 1,000 members for special training and to act as the leaders and technical specialists for smaller, village level "quality control" groups. Each of these groups has about 20 members and a committee of three or four. So far there are 15 groups with 308 members. Mr Had is president of the Ban Sa-at group.

The groups meet in their own villages for half a day once each month during the 6-8 month growing season, concentrating each time on whatever is the next field management activity the members will have to undertake. The meetings are organised and

led by the BAAC in cooperation with the provincial agriculture office and the Racha Kaset company, and with the groups' own technical specialists playing a leading role. The members cooperate in buying inputs like fertilizer, and the plan is that they will also work together when it comes to dealing with buyers for their fruit.

The trees of the first project farmers are producing their first fruit this year, a year ahead of expectations. Hence the current concern about care of the fruit as they ripen and immediately after they are picked, and about teaching farmers precisely what "Grade A" means and what to do to get Grade A fruit.

Several of Mr Had's tamarind trees produced for the first time in February and he distributed the fruit among his friends to get their opinion about the quality. In the case of tamarind, appearance and sweetness are the main determinants of price. Sweetness comes from the variety, soil conditions and field management. Appearance comes from post-harvest care and the method used for drying any fruit which the farmer wants to keep to get a better out-of-season price. The larger-scale local farmers have started using micro-wave ovens because traditional ovens darken the tamarind shell and reduce its value.

Mango grades are a good deal more complex than tamarind grades, and more complex than the opening paragraph of this article suggests. Thai farmers produce about 20 mango varieties on a commercial basis, each with different appearance and eating characteristics and therefore each with a different set of "grade A" criteria. But broadly these criteria include the size, appearance and maturity of the fruit. Floating a few samples in water is a simple way of testing for maturity.

The lack of consistency between different buyers' grading standards is a serious problem, especially in areas like Loei where produce markets tend to be particularly unsophisticated. Many buyers prefer to "suu mao", contracting with farmers before the harvest and buying their entire production for an agreed price without any attempt at grading. Theerapong Tangthirasunant, head of BAAC's Agribusiness Promotion Division, thinks this kind of practice short-changes the farmers and frustrates larger companies who want as much as they can get of good quality produce for export markets.

"We cannot get involved in trading directly," says

Theerapong, “but the BAAC can play a key role in trying to support grading standards which are as uniform as possible. And we can make sure our farmers are well informed about standards and able to contact a range of trustworthy buyers who will give premium prices for good quality fruit.”

The possibilities for the chom rom or quality control group approach can be seen more clearly in Chantaburi, an established fruit production area where BAAC introduced the chom rom concept on a small scale in 1987. Sixty eight farmers have formed a mangosteen producers club. All had productive mangosteen trees when they joined the group, and all are substantially better off than their counterparts in Loei. They have reached the stage where they organise their own activities without constant attention from BAAC. The chom rom committee visits members’ plots regularly to check on standards, in order to make sure the group as a whole can establish a reputation with buyers as reliable producers of best quality mangosteen.

Mr Manot Namcheu is one of the members of the Chantaburi mangosteen chom rom, and says that he used to get 6 or 7 Baht per kilogram for his mangosteen. The group recently contracted with the Shell company at a price which will be 26.50 Baht per kilogram if they can meet agreed quality and quantity standards. They met those standards last year, and are confident they can do it in 1990. Manot’s income has increased so much from the chom rom’s activities that he plans to change his main activity from durian to mangosteen production.

By comparison the Loei quality control groups are primitive. Mr Prathak Leutlam, Manager of BAAC’s Loei branch, describes the village level quality control groups not as cars or even pick-up trucks, but as “rot iten”, referring to the simple farm vehicles which can be seen chugging along the roads in the Northeast. Although the farmer members



are beginning to work well together they have not reached the stage where they meet spontaneously without outside supervision. The eventual goal is for each group to have its own fruit grading and packing house, and be able to negotiate independently with buyers. It is a goal which can be envisioned clearly and which seems attainable, but it is still some way off.

Forming and sustaining farmers’ groups is labour intensive work in the early stages, and demands on the credit officers are heavy and often underestimated at the project planning stage. Even at the present level of development, after a year’s work there are still only 15 groups involving 300 farmers. Much of the burden has fallen on Loei’s long term loan officer Mr Sanguan Suriyo. Sanguan thinks he needs at least one additional officer working full time on the project for every 500 participating farmers.

Is the Loei project a model for other Northeastern areas? Although remote and as yet poorly developed Loei is a special case, with a number of advantages compared to most of the region. The soils and rainfall are relatively good. The idea of fruit trees promotion originated with the former governor, Mr Santi Manikan, and his involvement and enthusiasm gave the development process an indispensable boost. Perhaps because of this there is better cooperation between agencies here than in some other areas. In particular the BAAC and the provincial agriculture office have been able to work together closely. There was also a crucially important link with a private company, Racha Kaset, which was able to provide good quality planting materials on schedule, and which has actively assisted in farmer training, the formation of the original chom rom, on-farm follow-up and the early stages of marketing.

There are problems still to be solved. Technical standards can still be improved substantially, the quality control groups are still in their infancy compared to those in progressive areas like Chantaburi, and some way will have to be found to ensure that farmers have a choice of buyers for their fruit who will buy by grade. This is a successful project which nevertheless highlights some of the practical problems of effective technology transfer for the benefit of small-holders, and some possible ways forward.