VILLAGE PIG FATTENING PROJECTS IN THE HIGHLANDS

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INTRODUCTION

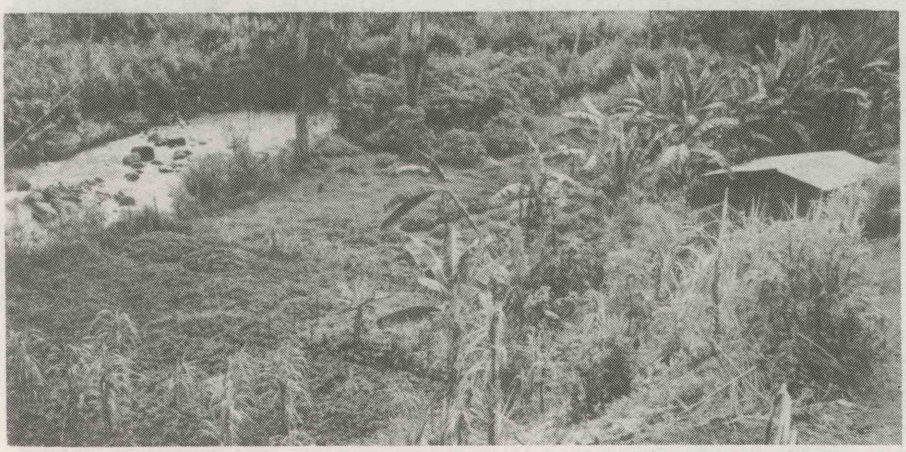
The Tropical Pig Breeding and Research Centre (TPBRC) at Goroka in 1979 produced over 1000 weaner pigs, mostly European Crossbreds, for sale. Many of these pigs were sent to Didimen throughout the highlands for distribution to village fattening projects. Once in the villages, any help or advice was given directly by local D.P.I. staff, so TPBRC had no information on the performance of these pigs once they had left the centre.

In order to get information on the performance of the pigs in the villages, a survey was carried out during April and May, 1980. The aim of the survey was to collect information on growth rate, mortality, health, diet and management systems.

THE SURVEY

The survey was concentrated in the Simbu, Western Highlands and Enga Provinces. In each place the P.R.D.O. agreed to help in organising the survey. District Officers who had handled TPBRC weaners in village projects were visited in turn. Officers familiar with the projects went with the researchers to find the pigs and their owners. In many cases where the villagers understood their 'tok ples' only, these officers acted as interpreters.

A total of 120 pigs were found in 19 projects. This was about half of the weaners distributed in the survey area in the 10 months before the survey. Any pigs sold before this date were much more difficult to trace, as most of them had been sold or slaughtered.



A good site for a pig project, with water supply, kaukau and housing close together.

All TPBRC pigs are identified by an ear notch system. With the aid of records kept at the Centre, each pig could be traced to give information on time of birth, weight at birth, weaning weight, breed of parents, weight at time of sale. The growth rate on leaving the Centre could be calculated. The following information was collected at each project:

1. Number of weaners bought from TPBRC.

2. Number still remaining, and history of missing pigs (e.g. deaths, sales, slaughter).

3. Weight and identification number of each pig.

4. Diet information.

5. Health information, including external parasites, and whether a worming programme was carried out.

6. Management system (type of housing, grazing policy); general impressions on the attitude of the farmers.

DIET AND GROWTH RATE

The most common diet was sweet potato (cooked or raw) supplemented with protein concentrate. This was encouraging as this diet produced and highest growth rate. Where sweet potato was fed without protein concentrate (either because of expense or lack of availability) the growth rate was considerably lower.

A small number of projects used bought-in feed only. This group had the lowest growth rate. This is surprising as the food is made especially for growing pigs. The feed itself was not at fault, but it was very expensive and sometimes it was difficult to get regular supplies. Severe under-feeding resulted, to the point where the pigs were hardly growing.

Growing pigs kept at TPBRC normally gain 420-500 g/day, but the best project average was 313 g/day. On ad-lib sweet potato (that is, as much sweet potato as the pigs want to eat), and 0.45 kg concentrate, growth rates of up to 540 g/day are possible.

However, sweet potato was probably not being fed ad-lib. The researchers hardly ever noticed food being offered to pigs. The low growth rate of pigs in the village projects was due to underfeeding.

DEATH RATE

In many projects, the death rate of pigs was very high. A smaller proportion of animals died in projects with only a small number of pigs.

It was hard to find out the exact causes of death. Most deaths were in the first 4-6 weeks after arrival at a project. There were few signs of short wind or diarrhoea.

The pigs were usually healthy on arrival at the villages. However, as a result of transportation, and the change of diet and surroundings, the pigs were weakened. This is especially the case on the larger projects where food is scarce.

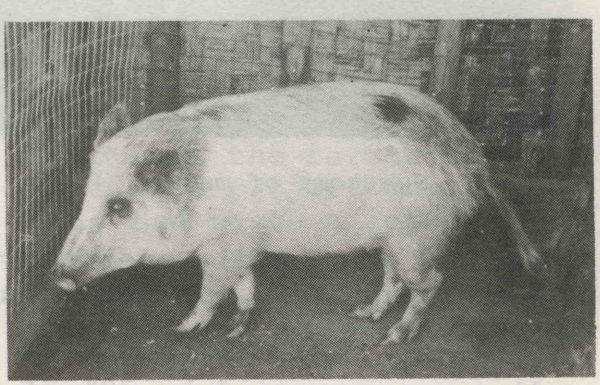
All projects with seven or more pigs had over 75% deaths. In projects with six pigs or less 56% had no deaths at all. Only 9% of these projects had more than 75% deaths.

HEALTH

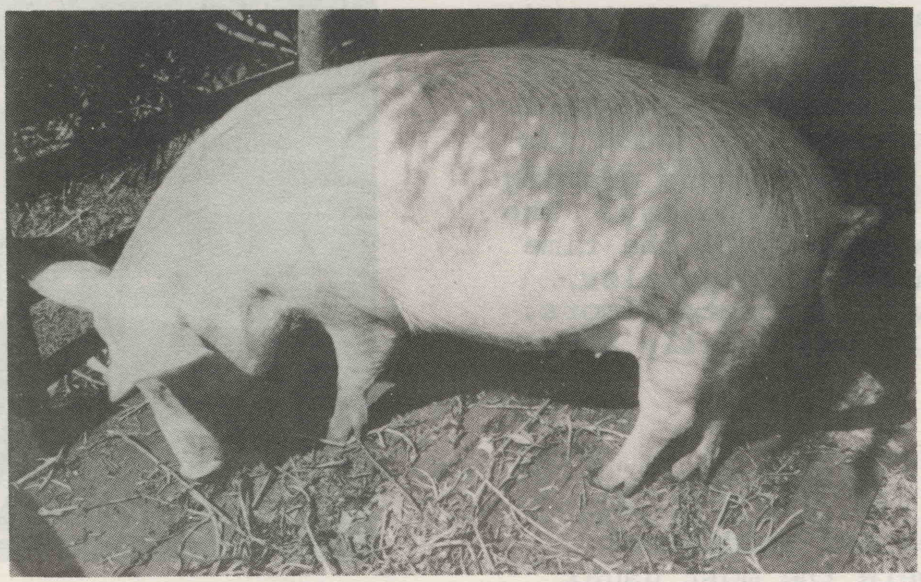
The most common health problems

Suitable housing for fattening pigs. Note the use of concrete for the floor, and bush materials for the walls and roof

Housing for a piggery near Mendi



A bush cross pig on a fattening project in the Western Highlands Province



A Large White crossbred pig on a project near Mendi

were worm infestations and mange. Almost all the farmers understood and recognised these conditions. They were aware of the benefits of wormer and mange wash to fight these diseases.

Symptoms of mange

Treatment was hardly ever carried out regularly, as veterinary supplies were not always available. Worm or mange medicines were used by 38% of the projects.

Sump oil was suggested as a free and easily obtainable treatment for mange. Many producers showed interest in this idea and agreed to try it.

HOUSING

Only two projects were grazing pigs for part of the day. The rest were housed all the time in bush material piggeries, usually with concrete floors. The housing was usually adequate.

BREEDS

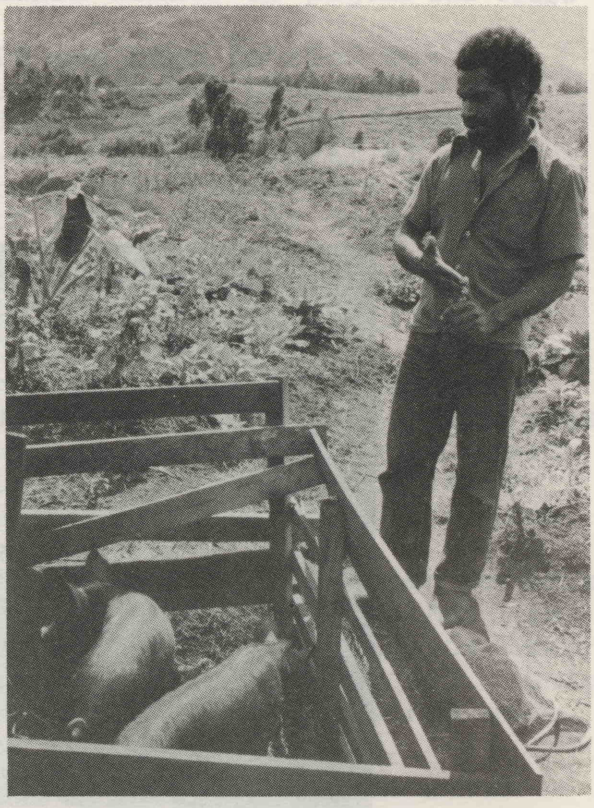
Saddleback and saddleback crosses were the most usual breeds. These are dark-skinned breeds, which many village people prefer. Where white skinned pigs were kept, they performed about the same as the dark breeds. However, dark skinned pigs would sell for more, because of local preference.

EXTENSION SERVICES

Some didimen said that they did not visit projects as often as they would have liked, because of transport problems. All the projects with a death rate of more than 75% were over 15 minutes walk from the road. As well as reducing advisory visits, this means that concentrate has to be carried a long way.

The didimen could usually supply worm medicine and mange wash, if required.

Few farmers had any idea of the profit (if any) made by their piggeries.



A Rural Development Officer inspecting a piggery near Mendi

COMMENTS

If the newly-introduced weaners can survive the first two months in the village, then the project has a good chance of success. Pigs in smaller projects seem much more likely to survive.

The most suitable diet is cooked sweet potato supplemented with protein concentrate. It is good to add other home produced foods to the diet, such as sweet potato leaves, bananas and taro.

The most important factor in feeding is to keep up a constant supply of protein concentrate. We recommend that 0.45 kg is fed to each pig every day. Less concentrate can be used, as long as it is given every day. In this case, the pigs will simply grow more slowly.

If the didiman arranges for the first supplies of concentrate to arrive with the pigs from TPBRC, he can show the farmer how to use it.

We would not recommend feeding entirely on bought feeds, except for intensive piggeries with their own transport, and high standards of management.

CONCLUSION

From this survey, there are three main factors which make these projects successful:

1. No more than six weaners per project.
2. The first supplies of concentrate arrive with or before the pigs, and provision is made for future supplies.
3. Regular visits be made by the didiman, especially in the early stages. On these visits he should bring supplies of mange and worm medicines, for sale at cost price.

In some cases the didiman may not be able to make visits, help with ordering feed, or provide medicines. In these cases, he should talk over the problems with the farmer. If necessary the didiman should discourage the farmer from starting a project which might fail, and waste a lot of his money.

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