

EXTENSION AND TRAINING IN THE SHEEP INDUSTRY IN PAPUA NEW GUINEA

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INTRODUCTION

The sheep industry in Papua New Guinea began in 1974, with the aid of New Zealand, through NPEP funding. An article in Harvest Volume 7 No. 3 described the early progress of the project at Menifo Sheep Research Station, Eastern Highlands Province. Since those small beginnings, the industry has come a long way.

Most progress has been in the setting up of new sheep breeding centres. Apart from the National centres at Menifo, Tambul (W.H.P) and Erap (Morobe), four of the highlands provinces have, or are developing, their own Provincial Livestock Centres. Enga and Southern Highlands Provinces have already set up centres and are now preparing to begin distribution of sheep to smallholder farmers.

This expansion from the National Centres to the Provinces has prompted the need for an extension and training structure to serve all levels of the industry - from smallholder farmers to Provincial Livestock Officers to the National Sheep Project Managers. As the number of sheep in Papua New Guinea increases, so too does the need for people with knowledge and skills in sheep. To fulfil this need has been a major challenge since 1981.

SHEEP IN PAPUA NEW GUINEA

The 3 National Sheep stations at Menifo, Erap and Tambul act as breeding centres to supply the Provinces. Menifo has 1200 breeding ewes, Erap has 200 breeding ewes and Tambul has 220 breeding ewes.

The role of the Provincial Livestock Centres

When a Province sets up its own Provincial Livestock Centre, it may buy 100 ewe hoggets (young females).

The Provincial Livestock Centres do not deal only with sheep. For example, Oiyarip in the Southern Highlands Province is the most developed centre, and it keeps a variety of farmed species including sheep.



Sheep at Oiyarip Livestock Centre, Southern Highlands Province, where they are kept alongside other farm animals such as poultry.

The other Livestock Centres in the Southern Highlands Province are Muli and Margarima. Muli has undergone considerable development in pastures, stock performance and facilities since 1985. The

manager has improved the pasture quality by introducing legumes, and erecting fences. A new night house was built in early 1986. Muli has 112 ewes.

Enga Province has 3 Provincial Livestock Centres. Yogos now has 95 breeding ewes. Keam is in the very early stages of development and at present has 15-20 cattle to 'break in' the pit-pit. Taluma is the most recent centre in Enga Province. The plan is to use this centre as a demonstration unit for smallholders.

Simbu Province is developing a Livestock Centre at Nambaiufa; Eastern Highlands Province at Kainantu and Korofeigu.

Each Province decides on its own policy for distributing sheep from the centres; however, the system is similar throughout the Highlands. First time buyers are encouraged to begin with wethers (castrated males). After a 'probation' period of getting used to the sheep and the extension input to the small holder, the sheep farmer or project can then have the option of buying ewes (breeding females).

The Province can use the Livestock Centre as a base for training didimen and smallholders.

So the two main functions of the Provincial Livestock Centres are:

1. supply of stock.
2. training.



Healthy sheep at Yogos Livestock Centre

Sheep projects

Smallholder sheep projects are usually classified as a farmer, village, mission or school having up to about 10 sheep. Such projects at High schools, Vocational Centres, Community schools and resource centres have proved successful. There is also a growing number of individual farmer, village and youth group projects.

A problem faced by the whole industry is that there are not enough sheep to supply all the people who ask for them. Sheep are producing well, and many people are enthusiastic about becoming involved in the industry. This lack of supply is not likely to be solved until the 1988-89 season.

The major concern for the smallholder projects is protecting their sheep from dogs and from being stolen. In some cases, a night house, or a secure night paddock is necessary.

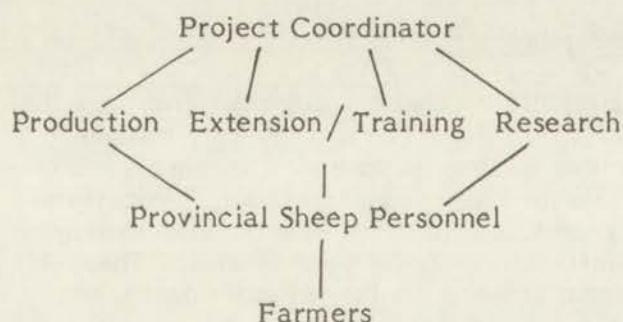
Animal health is not usually a problem for smallholders who keep 5-10 sheep, providing they are aware of the following:

- salt block use;
- signs of internal parasites;
- foot trimming techniques;
- screw worm attack.

In the village or farmer owner situation, the sheep may be herded out during the day time and brought into a house or paddock for the night. School, missions or farmers who keep more sheep may choose to keep the sheep within a fenced area during the day. All of the Provincial Livestock Centres and National Centres have fenced paddocks which are grazed in turn (see Harvest Vol. 7, No. 3). The night time arrangements vary. If night paddocks are used, they are usually shifted from one area to another after about 2 months.

THE NATIONAL DPI SHEEP PROJECT TEAM

The complete team involved in the National D.P.I. Sheep Project has the following structure:



The National D.P.I. team has the following components:

Research

The research team is based at Menifo Sheep Research Centre. At this stage most of the research consists of trials on pasture species and fertilizers. The trials are carried out at Menifo and also in the Southern Highlands and Enga Provinces and at Tambul. Hence these trials in the Provinces have established a link between the National Centres and the Provinces.

Production

Production is aimed at increasing the supply of improved stock to the Provinces. Improving stock is done at Tambul, Menifo and Erap by the careful keeping of records of stock, and the selection of those sheep which do best. As the quality of the stock being produced at the National D.P.I. centres improves, then productivity should increase. The three production centres are also important as part of the training system, and as suppliers of stock.

Extension and Training

The extension/training unit has considerable contact with the Provinces. It acts as a resource for the Provinces, and coordinates the various training and extension opportunities which exist.

EXTENSION/TRAINING SYSTEM

As the sheep industry expands, so too does the need for people who are aware of sheep husbandry and pasture management techniques. Hence the National D.P.I. sheep project team has developed various options

for training and extension at different levels of the industry.

The objective of the extension/training system is to provide training which assists productivity and is practical for the sheep industry in Papua New Guinea.

The extension/training effort has been directed at 3 levels.

1 Smallholder farmers; prospective sheep owners; Rural Development Assistants; Youth groups; Womens groups, etc.

Training options available are:

(i) Newsletter

The sheep newsletter began in 1985. It is now a collection of articles about management written by anyone involved in the sheep industry. At present it is distributed to the Agricultural Colleges, the 5 Highlands Provinces and Morobe Province on a quarterly basis.

The newsletter is edited by the National Sheep Extension Officer, or an officer appointed by him.

(ii) Skills weeks

Depending on the source of the request, skills weeks can be run at the Provincial Livestock Centres, Menifo or Tambul. Responsibility for these is with the managers of the Provincial Livestock Centres or the Extension/Training National D.P.I. team together with Production Managers. The weeks can either deal with a number of skills or they can concentrate on a single area.

Menifo completed a skills week in June 1986 covering everything from pasture management through to handling sheep for a local youth group. The production team at Menifo also successfully ran a 2 week shearing school using instructors from the Southern Highlands and their own staff.

(iii) Extension officer contact

Transfer of skills and knowledge should be occurring regularly through didimen.

As more of the Provinces have trained staff, so the process of transfer and extension can be achieved.

(iv) Practical experience

All Provincial Livestock Centres and National Stations offer the opportunity of "hands on" practical experience. Both Tambul and Menifo are actively taking on Provincial staff for a period of 3-4 weeks. The main advantage of Menifo training is the ability to "practice" skills on large numbers of stock.

(v) Provincial field days

The Provincial Livestock Centres host field days for most levels of the sheep industry. The Province can also organise field days at smallholder, school or mission sites. The responsibility for these lies with the Provincial Livestock personnel.

(vi) Sheep Short Course (HAC)

This 3 week course is aimed at people who have had little or no formal training in sheep husbandry. Skills competency forms a large part of the course together with basic principles of pasture management and animal husbandry.

(vii) Demonstration units at HAC and the Provincial Livestock Centres

The Highlands Agricultural College has set up a small holder demonstration unit for training purposes. There are also plans to set up a demonstration unit at a village close to the College.

2 Rural Development Technicians and established smallholders.

The options for training are:

- (i) Newsletter
- (ii) Skills weeks
- (iii) Provincial field days
- (iv) Sheep short course



Learning how to handle sheep - these sheep are being tested for pregnancy.

(v) Quarterly farm walk

The farm walks began in 1985 under the direction of the Extension/Training unit. The objective of these walks is to help communication between the Provinces, industry (commerce) and National D.P.I. on sheep management practices. So far, 4 "walks/work shops" have been held in different Provinces involving people from the industry and from D.P.I. These walks have been very successful, judging from the support we have received and the positive feedback generated from the gatherings.

The days usually try and deal with one topic. "Requests" from participants are dealt with wherever possible. Outside speakers are invited where there is a lack of expertise within the group. All members have an opportunity to share ideas and participate in discussion.

(vi) Sheep Management Course (planned only)

It is hoped to run a 2-3 month course at the Highlands Agricultural College. The content and objectives of the course will be decided by a 12 man committee, made up of people from D.P.I. Training Branch, D.P.I. Livestock Division and the Provinces.

(vii) Sheep Extension Course

This new 3 week course at Highlands Agricultural College was run in October, 1986. The course is designed to develop skills in extension techniques for people in the field.

3 Rural Development Officers and Large Sheep Operators

Options for training include:

- (i) Newsletter
- (ii) Extension and Management training as outlined above.
- (iii) Overseas training (New Zealand or Australia)

CONCLUSION

The training options described in this article have been set up, but the challenge is to the Provinces to satisfy the demand for trained people in the industry. Remember - if you are wanting to run Provincial sheep field days, skills weeks or workshops, then there is a team of experts available who are willing and able to assist.

The National D.P.I. Sheep Training/Extension Team acts as a resource to be used by the Provinces. Use it!

FURTHER READING

Kilroy, C. (1981). The D.P.I. Sheep Research Centre at Menifee. *Harvest* 7(3): 126-131.