

GUINEA PIGS

By G.P. Bilong, Animal Production Officer, Poultry Research Centre, Lae

INTRODUCTION

Guinea pigs are very quiet animals belonging to the group of animals called rodents. Rodents, which include rats, mice, rabbits and guinea pigs, are animals which have sharp teeth for chewing hard things.

Domestication of guinea pigs for meat production is first recorded to have happened in South America. Guinea pig meat provided protein in the diets of farmers in the Andes Mountains of South America. Guinea pigs are found all over the world. In most countries they are not used as meat animals, but as laboratory animals in biomedical research, and as pets.

The Poultry Research Centre, Labu, near Lae, has been investigating guinea pigs as a source of meat. It is believed that this animal could become an important food in Papua New Guinea, especially in remote areas.

WHAT DO GUINEA PIGS LOOK LIKE?

Guinea pigs have stocky bodies, short legs and no tail. The type of guinea pig used for meat production has a coat of smooth, short fur. The coat colour varies, with the common fur colours being all white, all grey and white, or grey with black patches. The eyes can be either red or dark. Adult guinea pigs weigh between 400 and 700 g and are around 20 cm long. They make a squealing sound at the sight of their keeper, especially if they are hungry or thirsty.

GUINEA PIGS AS A MEAT SOURCE IN PAPUA NEW GUINEA

Some reasons why the guinea pig is thought to be suitable as a source of meat for villages in Papua New Guinea are:

1. The animal is well adapted to a wide range of climates. It can survive in



Guinea pigs

both highland and lowland areas of Papua New Guinea.

2. Guinea pigs breed quickly (2.7 young per year on average).
3. They are efficient at converting feed into body tissues.
4. They should be quickly accepted by village people who already hunt for similar small animals (rats, bandicoots) for meat.
5. They are very easy to handle as they do not bite, climb or jump.
6. They can be reared very easily in simple pens.

RAISING GUINEA PIGS

Housing

Guinea pigs can be kept in a simple shed made from bush materials. The shed should be draught-free, and should keep out predators which might attack guinea pigs, for example, snakes, dogs, cats and rats.

Inside the shed, the guinea pigs are kept in pens to separate breeding animals from the younger ones. The pens should have a flooring of deep litter (dried grass, wood shavings), which should be changed about every 2 weeks. A pen of 70 cm x 90 cm, x 40 cm high is suitable for one breeding unit of one male and 6 females.



Guinea pigs reared under the deep litter system

Instead of deep litter, cages with wire floors could be used, with a tray underneath to catch droppings.

It is important to remember that the animals must not be let loose because they can be hard to recapture, and they might be killed quickly by predators.

Feeding

Guinea pigs are herbivores - they feed on plant material only. A mixed diet of foods grown in the village is suitable. The diet should include fresh greens and grasses, to provide enough vitamin C.



A simple bush material guinea pig house



Green grass being brought in for feeding. The diet of guinea pigs should include fresh greens and grass to provide enough vitamin C.

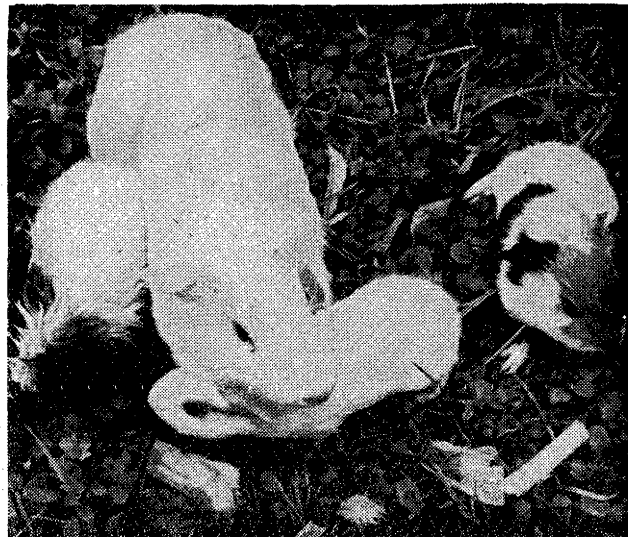
Fresh water must be provided every day. Clean out the water trough or bowl each time the water is changed.

BREEDING

As guinea pigs have young 2 to 5 times in one year it is easy to build up large numbers.

The males become sexually mature at 60-70 days of age and should not be used for breeding before this. The females become sexually mature at 30-45 days. On average,

the litter size (number of young born) is 2 or 3, although it is not unusual to have 5. If there are more than 3 young in the litter, the death rate is very high.



A sow with a litter of three

The time from becoming pregnant to giving birth is 60-70 days. After giving birth, the female comes on heat again within 48 hours and can be mated again. Because of this, males should be left with the females all the time so that young can be produced all the time. On average, the female will bear young for 3 to 5 years.

GROWTH

Young guinea pigs become independent quite soon after birth. At birth the young have hair and teeth, and their eyes are open. Within an hour of birth they begin running around. After 2 to 3 days they begin eating solid food.

The young should be left with the female for 3 to 4 weeks before weaning. In the next 4 to 6 weeks, the young guinea pigs grow very quickly; after that the rate of growth slows down.

At birth, young guinea pigs weigh between 60 and 100 g, depending on the litter size. They will grow to 500 to 700 grams in 18 to 20 weeks, with good feeding.

HEALTH

When guinea pigs develop a rough coat, lose appetite or lose weight it probably means that they are sick. The best advice is to try to prevent disease from occurring. The following are some ways of preventing disease:

1. Keep the cages and pens clean by removing droppings and unused food each day.
2. Feed guinea pigs a balanced diet of clean food. The diet must include fresh green vegetables and grasses to provide the animals with enough vitamin C.
3. Provide fresh drinking water daily in clean containers.
4. Never transfer feed or drinking water from one pen to another.

5. Protect the animals from cold, draught and too much moisture.

IF YOU WANT TO RAISE GUINEA PIGS...

Breeder units of one male and 6 females can be bought from DPI, Labu, Lae.

If you want to buy guinea pigs or obtain further information about rearing guinea pigs for meat, write to:

The Officer in Charge
Poultry Research Centre
P O Box 73
LAE
(Telephone: 421022)