

SMALL SCALE RABBIT RAISING

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INTRODUCTION

Raising animals in the Ghanaian home or backyard to supplement the family's meat supply is a time-honoured pre-occupation. Traditionally, the chicken, duck, guinea fowl, sheep and goats are reared although recently rabbits (and to some extent grasscutters) have been added to the list.

As meat animals, rabbits multiply fast and in large numbers, hence they are well-suited to increasing the meat supply both on a household and even on commercial scale. Their suitability to the home is further seen in their quiet, docile nature and the relative ease with which they can be fed on domestic waste such as cassava peel, bread crumbs, etc.

To set the discussion going let us consider the major factors and practices of rabbit production that are important to successful backyard or small scale operation. These are housing, breeding, feeding, management and mortality control.

RABBIT HOUSING

The structural unit in which rabbits are housed is the hutch. Basically this is a rectangular box, about 2 metres long fairly deep, and standing at least $1\frac{1}{2}$ metres from the ground. The floor of the hutch is made of welded mesh over which is laid a wire-netting. The doors are also constructed of wire-netting to permit adequate light and ventilation in to the hutch.

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A hutch that is intended for breeding purposes, ie. for the reproducing female or doe and its litter (young ones) is often divided into compartments of about $\frac{1}{2}$ metre square for each doe-litter set. Hutches earmarked for use by growing rabbits and the general herd, however, have larger compartments about twice the size of a breeder compartment.

All hutches are provided with hay mangers, feeding troughs and watering troughs, and in the case of breeder hutches with a kindling or litter box. (Kindling or littering is the term applied to the act of delivering the young after pregnancy).

Rabbit hutches should always be placed away from the glare of the sun, preferably under the shade of a tree. They should be fenced in if possible, unless there is a wall or hedge around the house. This is made to keep away dogs and other predators including thieves. The general site of rabbit production with its disposition of butches and other auxillaries is called the rabbitry.

BREEDING

Rabbits are not native to Ghana - all known stock having been imported into the country. Most of the present stock comes from Western Europe. There is, however, a local equivalent to the rabbit - the hare, which is portrayed on our 20 pesewa postage stamp, but this animal is not as adaptable to the home or as prolific and as docile as the introduced rabbit.

Among the known breeds of rabbit important to local production are the following:-

New Zealand White: an albino with a white coat and pink eyes.

Californian White: similar to the N.Z. white, but with streaks of colour in the coat.

Yellow Silver : light orange coat

Flemish : brownish-grey coat

Blue Vienna : black, blue black or grey in colour.

At maturity, these animals weigh between 2-3kg (or 4-6lb approx.) and dress roughly 50% at slaughter - much like backyard poultry.

On the other hand, much larger breeds of rabbit are known. About the size of an ordinary dwarf goat, these forms have only been recently introduced into country and include the Flemish Giant and the Lop, both of which are being multiplied for breeding purposes by the National Rabbit Project at Kwabanya.

Starting rabbit production requires the selection of a good foundation stock. For the backyard operation, it is best to start in a modest way with say, two does and a buck (ie the male rabbit). Initially the buck and doe can stay in their individual hutch compartments, but at mating time, the doe may be brought to the buck. The period in which the doe is in heat (ie. prepared to receive the male) can be detected by restlessness and unusual behaviour in it, and this can last for about 12 days.

Mating will occur immediately the doe is placed in the buck's hutch. Does release several eggs at a time, most of which can be fertilized at mating: which is the reason why the rabbit is litter-bearing. After service, the doe may be returned to her hutch. If pregnancy takes place, it would last for about 30 days. A few days before kindling, a nest or kindling box may be placed in the hutch.

At the time of birth, the young rabbits are blind and naked. Soon, however, they grow appreciable amounts of hair over their bodies, and by the 10th day they have opened their eyes. Quite often the litter are dropped on the hutch floor, and sometimes they may fall through the mesh onto the ground. But with good management, the problems associated with litter care can be contained (see below).

FEEDING

New-born rabbits must have their first food in the form of milk from the doe. As in all mammals, mother's milk is essential to the new-born as it contains a substance called colostrum which helps the young ones to build up early resistance against infection.

As time goes on (specifically about the 20th day), the young rabbits will begin to eat solid food. By that time they may come out of their nests permanently. The early solid rabbit food should consist of light bulk, ie. young, slightly dried grass supplemented with concentrates of grain/protein origin and containing about 18-20% protein. As the rabbits grow, the protein level may be decreased gradually to about 14 - 16% at the time of weaning. Weaning is the time the young rabbits are separated from their mothers to start life on their own in what is called the grower stage.

At this latter stage, more bulk (ie. grass hay) than concentrate must be provided. After the grower stage, which is between 2 and 3 months, the rabbits may be marketed or slaughtered as fryers. If otherwise decided, they can be fattened into mature animals, 4-5 months. The fattening or finishing of animals for slaughter requires an extra supply of grain concentrates such as maize, press cake and fish meal mixes with the usual supply of grass hay bulk.

Additional feed that may be supplied to rabbits are dry corn on the cob, dried cassava peel, kokonte and dried pieces of yam or cocoyam. Palm fruit may also be provided. However, the latter causes a deposition of yellow fat in the animal body. Mildly dried legume leaves such as cowpea or winged bean leaves may be given. Pelleted protein feed is ideal, since this provides an opportunity for the animals to gnaw on something. Besides pellets secure against feed wastage as happens through scratching and burrowing into grain. It should be noted that the "wet" feeds generally cause diarrhoea which is indicated by soft droppings in rabbits. Hence all feed for these animals must be dried before being to them.

The idea of avoiding excessive moisture in the feed does not mean that rabbits have no need for water. Unlike grasscutters rabbits have a direct requirement for water which they take in quantities proportional to their body needs.

This means that water must be supplied freely at the beginning of each day and replenished when finished. At times of day when environmental temperatures are high, rabbits tend to drink and eat less. At nights however, they eat more. In general, it is important to feed them regularly than more frequently.

MANAGEMENT

The management of any class of livestock implies the application of the knowledge of their nature, behaviour and disposition to their handling and care from conception to slaughter.

At birth, the young rabbit is a rather helpless animal, while the doe is not a particularly good mother. Most young rabbits die from chilling - if unprotected by the doe's fur which is shed for protection purposes a little before birth. As soon as the litter are seen outside their nests, they should be picked up with cotton wool and placed in the nest. They may also be protected by covering them further with cotton wool or banana stem fibre. If the mother should die when the little are still on milk, they should be given ordinary evaporated milk diluted to half-strength and administered with a medicine or "eye" dropper.

Sanitation is another aspect of management which should engage the routine attention of the operator. The hutch must be cleaned once a day. Soiled bedding, contaminated feed and manure should be removed. The rabbitry must be swept thoroughly and the drinking water changed each day. Periodic scrubbing and disinfection of the hutches and nest boxes is advised particularly if a new litter or a herd of rabbits will be housed in them.

Sick animals must be removed, isolated and treated before being returned to the herd. Dead animals should be buried far away from the hutch - deep in the earth to prevent dogs from digging them up.

Rabbit manure and feed remains when properly rendered make excellent fertilizer. For best results they must be weathered prior to use.

MORTALITY FACTORS

Hunger

Though not a disease, hunger can cause sudden death in grower or fryer rabbits. Feeding must therefore be uniform to sustain such losses.

Diarrhoea

This is very fatal and occurs whenever there is change in the herbage or water either by contamination or by changes in the environment. Dry feed - chiefly grass hay controls the situation.

Coccidiosis

This disease involves weight loss, diarrhoea or soft droppings. To treat it, sulfa drugs may be administered. Examples are sulphamethazine and sulphathiazole. In treatments where tetracyclines are used two levels dessertspoon of the powder may be added to 3 gallons of water first thing in the morning for 3 continuous days. Preventive or prophylactic treatment should be made once a month using one level dessertspoon per 3 gallons water.

Ear Canker (Mange)

Mange is caused by accumulation of mites in the ear. Palm kernel oil (sometimes mixed with tetracycline powder) rids the animal of the condition.

Running or Butting Disease

This disease is caused by virus infection which makes the rabbit run about blindly and butt into objects in their way - sometimes killing themselves. There is no cure for it, but since it is infectious, the rabbits must be isolated and destroyed whenever the condition is detected.

RABBIT MEAT AND ITS PRODUCTS

Most Ghanaians prefer to eat meat from mature animals - which for rabbits means that they must be at least six months old prior to slaughter.

Slaughter can be made in the usual way by bleeding the animal by cutting across the neck. The animal is then hung by the left hind hock on a nail (head down). From this position the skin is pulled down after a cut is made around the hock and down the thighs to the pelvic region.

With the skin, head and feet finally removed, the next stage is to cut open the chest and belly and pull out their contents, the viscera, leaving the kidneys intact in the carcass. The liver (less the gall-bladder) and heart may be saved and added to the carcass. These are washed and allowed to cool then chilled for at least 12 hours prior to use.

After thorough chilling the rabbit carcass can be cut up if so desired into portions such as the arm, shoulder, rib, loin, leg and shanks. Of these, the prime cuts, ie. the most meaty cuts are the leg and the loin, which together account for 4.6% of the weight of the carcass.

Rabbits can also be singed (ie. smoked) and dehaired by scraping them with a knife prior to evisceration and dressing. Further smoking or grilling of the cleaned carcass can also be made. In this case the smoking can be continued until the meat is dry enough to keep without deteriorating. This can usually be achieved by intermittent smoking over low heat for about 3 days.

Smoked rabbit meat provides a delicious base for light soups or palm and groundnut soup, and can also be prepared into stews. On the lighter side the skinned/cut-up carcass can be fried for small chops or prepared into barbecue along with pepper gravy.

Presently, the Food Research Institute is experimenting with dry smoked rabbit and salted and cured rabbit meat for the public. Also being studied is the possibility of making sausages and "corned beef" from rabbits. These are being made in an effort to raise the acceptability of rabbit meat in Ghana.

RABBIT SKINS AS BY PRODUCT

The most important by product of the rabbit is its skin. Traditionally in Ghana animal skins are stretched on the ground or on a board by nailing them from all sides to the board for sun-drying.

When fully processed rabbit skins can be used for making ladies bags, pocket books or other articles of tourist attraction. It is also said that there is a good export trade in rabbit skins. Experts suggest that for this purpose the skins may be sprinkled with crystals of naphtha before being packed, stored or consigned for shipment. Under no circumstances, however, should rabbitskins be cured, processed or treated with salt.

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