

BACKYARD RABBIT FARMING



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Preface

Backyard rabbit farming can be a great idea for having healthy meat and an additional source of income for the family without much involvement. As a backyard animal rabbit is quiet, odorless and docile animal. They can be raised conveniently in residential area with minimum expense. It is easy to up keep the animal even children may carry out the farming operations starting from breeding to the fryer production. Only basic understanding of rabbit farming is needed to start with. The information presented in this booklet provides basic knowledge to run a backyard rabbitry.

A small backyard rabbitry may consisting of about four breeding females (does) and one breeding male (buck) to produce two fryers per week the year-round. The unit can provide nutritious and wholesome meat for the family, enjoyable occupational activity, rich manure for garden and may also supplement house hold income. The meat from backyard rabbit is considered as white meat with high in protein and low in fat, sodium and cholesterol as compared to other common meats available in North-East such as beef, lamb, pork and poultry. I hope this booklet will be able to buildup confidence in farmers so they may take initiative to start back yard rabbitry.

(C. Rajkhowa)

Rabbits can be raised in any type of environment, whether be it rural, suburb, or city. It is a small sized, friendly and low- maintenance family pet animal for children as well as adults to care for. This booklet will guide you to raise healthy and happy rabbits.

BACKYARD RABBIT FARMING

Raising rabbit is a fun. It can be one of the important micro livestock enterprises which have high potentiality in the North-Eastern hill region of India as meat is considered an important part of the usual diet of the people of this region and they consume almost all kind of meat. Livestock farming is one the major occupation of the local inhabitants but still this region is not self-sufficient in meat production. About 45% of the total requirement of the region is met by importing the meat animals from other states. In this context, exploration of non-conventional animal species like broiler rabbit can provide better scope to fulfill meat demand of the region to certain extent. Moreover, the meat value of rabbit is almost same as chicken. In addition to meat production, rabbit fur and skin can be utilized for making purse, hand-gloves, shawl, toy etc.

Table 1. Nutritional Value of Rabbit and Other Common Meats.

Skinless Meat	Protein (%)	Fat (%)	Calories (per g.)	Cholesterol (mg per g.)
Rabbit	22.8	6.3	1.55	1.94
Beef	29.9	10.1	2.15	2.57
Catfish	22.3	5.9	1.41	0.70
Chicken	28.9	7.4	1.90	2.82
Lamb	28.1	9.5	2.04	2.75
Pork	27.7	14.8	2.11	2.53
Turkey	28.9	4.9	1.69	2.29

Source: USDA.

There are several advantages that make rabbit an important meat producing animal:–

1. Small body size makes it easier to maintain in backyard and a small unit requires limited space.

2. Rabbit is a prolific breeder and can be bred at any time of the year. With shorter gestation period of 30 days only, 4-5 crops can easily be obtained in a year from a single female rabbit.
3. Rabbit matures at an early age and becomes ready for production by 6-7 months.
4. Rabbits do not compete with food for human consumption. A small unit of rabbitry can be maintained in backyard with kitchen/vegetable waste, grasses, tree leaves, etc.
5. Rabbit grows fast and attains a body weight of 1.5-1.8 kg within 12-14 weeks and provides nutritious and wholesome meat.
6. Backyard rabbitry provides enjoyable occupational activity for children and rich manure for garden. It is also a potential source of extra income for house hold.

Selection of Breed:

There are about 38 breeds and 89 varieties of domestic rabbits as recognized by American Rabbit Breeders Association. However, 2 broiler breeds New Zealand White and Soviet Chincilla were found to be suitable for NEH region as they are well adapted to the agro climatic condition of this region. ICAR Regional Center for NEH region Barapani is maintaining both of these breeds in its farm.



Housing:

Rabbit house should be constructed in an elevated area for easy drainage and shaded area for reduction of heat stress is preferred. Location should be free from dust, fumes, smoke, predator animals, etc. and should have easy access to water and electricity. Rabbits can be reared in following three kinds of housing systems:

a) Cage system: Cages can be kept on wooden or concrete racks inside a shed. The shed may be permanent type which is half walled with brick and iron wire netting above it and cemented floor with proper drainage system. The roof may be made with CGI sheet or asbestos. Semi-permanent type shed can be constructed with locally available materials like wooden posts, plank, bamboo, thatch, etc. Here the floor may be kutcha type or cemented but proper drainage should always be there for easy cleaning. The cages are to be kept on racks inside the shed by keeping a common passage between the rows. Cages can vary in size but generally they are of 3 feet by 2 feet by 15 inch height and made with welded wire mesh (16-18 gauge) with a hole size 3 by 4 inch. Cages should not be made with wood as rabbit chews and consumes it and also difficult to clean as it absorbs urine, water, etc. Cages can also be kept in tier system inside the shed for efficient space and labour utilization.



b) Hutch system: The hutches can be made with iron, bamboo or wood. Roofing can be either of CGI sheet or thatch. Flooring should be made of wire mesh for easy cleaning, the size of each compartment should be 3 ½ inch X 3 inch X 3 ½ inch. Few numbers of compartments can be constructed together in a hutch which can be shifted from one place to another. Partition between compartments may be made with wooden plank, bamboo or wire mesh. Hutches can be kept in shady place during summer to reduce heat stress or thatch may be given over the CGI sheet roof to keep it cool.

c) Floor system: This system is similar to deep litter system of poultry rearing where rabbits are kept on the floor in a house. The floor space requirement per rabbit is 4 square feet and the house may be partitioned to keep rabbits of different categories like grower, fryer, adult male and female, etc. separately.

General management of rabbits:-

Breeding:

Rabbits of both sexes attain sexual maturity at 6-7 months of age. Female rabbit is taken to the male rabbit cage for breeding and it is done either in the morning or in the evening. Successful mating is generally over within seconds and the male will fall down from the female making a characteristic sound. It is better to mate the female twice in the same day, once in the morning and another in the evening to get better conception rate and higher litter size at birth. The gestation period of rabbit is 30 days and around 20 days after mating, doe should be kept separately in nest box. Before kindling (act of giving birth by rabbit) the doe plucks fur from her body to make a nest for the young ones. However, extra bedding material like gunny bag, paddy straw or saw dust is necessary to put within the nest.

Care of new born:

Kindling in most cases takes place at night and generally no assistance is required. A doe gives birth to 6-12 nos. of young ones with an average of 6nos. in one kindling. Rabbits are born blind and naked. They start developing hair 4 days after birth and open eyes after 10days. For the first 20 days the baby rabbits' only food is their mother's milk. Does nurse their kits only once a day, usually in the early morning hours for about 3 to 4 minutes. It may happen, especially in a large litter that some of the young ones are weaker and are not able to compete with others in suckling milk. Here the farmer can check every baby rabbit and those underfed can be exclusively made to suckle again. In certain cases, the doe does not allow her babies to suckle at all. In such cases the farmer can feed the young ones on cow's milk with cotton or dropper. The baby rabbits start coming out of the nest after 15-16days and show fondness for green grass and concentrates while they continue suckling the doe. Gradually they start eating more solid food and suckle less from the doe.

Weaning:

After 42-45 days the litter is separated from the doe. Preferably the doe should be taken away and the litter should be kept in the same cage so that they don't have much separation shock. After weaning the rabbits can be fed on green fodder, vegetables and concentrates.



Young kits



Kits being fed green fodder

Management after weaning:

The young rabbits are tagged at 8-10 weeks of age and the growers should be housed separately. The selected breeding does and bucks should be fed well so that they grow faster. The does are ready to mate when they attain 60% of the total adult body weight.

Feeding and watering:

Feed requirements of the rabbits differs with the stage of growth. The average intake of balanced concentrate feed by an animal ranges from 120-150 grams per day which should be given twice daily, in the morning and in the evening. The pelleted feed fortified with mineral mixture, vitamin and salt can be supplemented with green fodder or hay. Greens are preferably offered in the evening because rabbits are most active during this period.

A small unit of rabbit in backyard system can also be well maintained with kitchen and vegetable waste along with some selected grasses, tree leaves and root crops.

Clean and fresh water should be provided *ad libitum* throughout day and night.

Health coverage:

Health coverage is one of the important aspects of profitable rabbit farming. Some of the important diseases of rabbit, their symptoms and preventive /control measures to be taken are mentioned below:-

1) Coccidiosis: It is characterized by loss of appetite, pendulous and distended abdomen followed by progressive weakness, constipation and diarrhea, rough hair coat and lies in the cage

with sleepy eyes. For prevention of this disease, 30 ml of Sulmet is mixed in 4 lt of water and given for 2 days followed by 15 ml of medicine in 4 lt of water for 4 days once in a month. For curative purpose some medicine can be given @ 1.5 ml per kg body weight for 2 days followed by 0.75 ml per kg body weight for another 4 days.

2) Ear canker or mange: It is caused by mites which attack the inside of the ear causing inflammation and severe irritation. Animal feels restless due to constant itching of the ear. Necrotic tissues may be found inside the ear. As treatment, crusts and scales are removed with the help of wool and Butox or Loraxen lotion can be applied. Ascabiol is also effective against body mange and ear canker.

3) Pasteurellosis: *Pasteurella multocida* causes a variety of diseases in rabbits – snuffles, pneumonia, otitis, conjunctivitis and abscess. The main symptoms of snuffles are thick sticky white discharge from nose with constant sneezing. The animal wipes away the discharges with its fore legs. It is not a fatal disease but can lead to the development of pneumonia if not treated. Snuffles and pneumonia can effectively be treated by a combination of 400000 IU of Penicillin and 0.5 grams of Streptomycin administered intramuscularly. Conjunctivitis and abscesses can also be treated effectively with suitable antibiotics.

4) Aflatoxicosis: It occurs mostly due to feeding of concentrate feed stored for long time, preferably in damp or moist places. The disease is characterized by loss of appetite, distended abdomen and abortion in pregnant animals. It causes high mortality. When the affected animal is shaken with both hands it gives a distinct gurgling sound. For prevention of this disease fresh and dry feed

should be offered to the animals. Feed should not be stored in damp places and molded feed should be discarded.

Predator Control

In backyard rabbit production, predator attacks are more emotionally disturbing than causing direct loss to the stock. The predator can be the pets; snakes; or even insects like ants and wasps. So careful management is essential to prevent losses from predators. Many times predators gain entry through the gate or they break open the cage, so the cages or hutches should be strongly built and the gates should be well secured and locked. Sometime even the predator may not succeed in breaking the cage or hutch, but due attack may cause serious injuries to rabbits. The best strategy for this is to keep large predators away from the rabbitry by placing the cages or hutches inside a fence. Snakes may create trouble for young kits so they must be watched properly during 1st two weeks of age.

Insect some time creates problem but it can be controlled by regular inspection of the nests and removal of dead kits after birth from the nest box soon after kindling. Nest box should be checked regularly and all the young dead kits should be removed regularly. These dead young kits if not removed timely they attract ants. Kits must be kept covered with fur as one hand it keep them warm and on other it protects the kits from the bites of the flies and mosquitos. Commercial insecticides, if used, should be used only according to the labeled directions. Insecticides must be kept in a safe place and away from the nests, feed and water of the rabbits. Predators causes direct harm, whereas insects including house fly increases the chance of diseases so sufficient care to control both should be taken to enhance the productivity and reduce the spread of disease.

Slaughter for meat purpose:

Rabbits are generally slaughtered for meat purpose at the age of 90 days when it weighs about 1.8-2.0 kgs. The dressing percentage of fryer is about 65 % and the skin obtained after slaughtering can be processed for making shawl, hand gloves, jacket, bag, etc.



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