



Rabbit Raising- A Case Study

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ABSTRACT

In this study we looked at the culture, rearing, housing systems, health problems and economical factors affecting the rabbit production in rural areas as well as in urban areas. The rabbits are susceptible to nature and the climate and the surrounding in which they are kept, hence in this case study we have discussed the keeping of rabbits so that maximum productivity can be obtained from them leading to maximum profit. Rabbits are very profitable in the commercial sector and hence people living near any medical laboratories, etc. used to rear rabbits as a major part of their business. Yield from rabbit business has grown over years making it a very attractive business proposition.

Key words: Breeding, Cage system, Floor system, Hutch system, ICAR.

INTRODUCTION

Rabbits are vastly used for many purposes like meat, wool, fur and pelts as well as their nitrogen rich manure and their high-protein milk. Many of the breeds of rabbits are available in this world but the production industries have developed a very different breed which can be domesticated (Angora Rabbit) which can efficiently fill these needs.

Even in America at least 25 to 30 million pounds of these domestic rabbits are been utilized for meat purpose. These rabbits are been taken from several rabbitries available either on small scale like hutches or on large commercial based producing areas. The meat of rabbits is white like pearl colour, full of nutrition, palatable finely grained.

Rabbits are also reared for their skin as their skin is of many uses like making slippers, glove linings, toys, etc. by dressing, dyeing and shredding the better grades of skins. There are several advantages that make them an important meat producing animal.

They are easier to maintain in the backyard due to their small body size and a small unit needs less room. They are prolific breeders that can be bred throughout the year. With a shorter gestation period of only 30 days, a single female rabbit can easily produce 4-5 kittens per year. Rabbits mature quickly and are ready for harvest in as little as 6-7 months. They are not in competition with humans for food. A small rabbitry can be kept in the backyard using kitchen/vegetable waste, grasses, tree leaves and other natural materials. They develop quickly, gaining 1.5-1.8 kg of body weight in 12-14 weeks and providing healthy and wholesome meat. Backyard rabbitry is a fun way for kids to get some exercise while still providing valuable fertilizer for the garden. It may also be a source of additional income for a family.

Selection of breed

Domestic rabbits come in 38 different breeds and 89 different types, according to the American Rabbit Breeders Association. Two broiler breeds, New Zealand White and Soviet Chincilla, were found to be ideal for the NEH region because they are well suited to the region's agroclimatic conditions. Both of these breeds are held in the ICAR Regional Center for NEH Region Barapani's Farm.

Housing system

Rabbit houses should be built on an elevated platform for easy drainage and in a shaded area to reduce heat stress. Dust, fumes, smoke, predator animals and other contaminants should be avoided and water and energy should be readily available. Rabbits can be housed in one of three different housing systems

Cage system

Cages may be stored inside a shed on wooden or concrete shelves. The shed may be a permanent structure with a half-wall of brick and iron wire netting above it, as well as a cemented floor with good drainage. The roof may be made of CGI or asbestos. Wooden posts, planks, bamboo, thatch, and other locally available materials may be used to build a semi-permanent shed. The floor here could be kutcha or cemented, but proper drainage is needed for easy cleaning. The cages should be stored on racks within the shed, with a typical passage running between the rows. Cages come in a variety of sizes, but most are 3 feet by 2 feet by 15 inches tall, and are made of welded wire mesh (16-18 gauge) with 3 by 4-inch holes. Cages made of wood should not be used because rabbits chew on it and it is difficult to clean because it absorbs faeces, water and other contaminants.

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Cages may also be organized in a tier structure within the shed to save space and labour.

Hutch system

Hutches are available in iron, bamboo and wood. Roofing materials include CGI sheet and thatch. Wire mesh flooring should be used for quick washing and each compartment should be 3 ½ inch X 3-inch X 3 ½ inch in size. A hutch with a small number of compartments that can be moved from one location to another can be built. Wooden planks, bamboo, or wire mesh may be used to create a partition between compartments. During the summer, hutches can be kept in a sunny location to avoid heat stress, or thatch can be applied to the CGI sheet roof to keep it cool.

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.

Source: https://www.researchgate.net/publication/273886912_BACKYARD_RABBIT_FARMING.

Floor system

Rabbits are stored on the floor in a barn, similar to the deep litter system used in poultry farming. Each bunny needs 4 square feet of floor space and the house can be partitioned to separate rabbits of various categories such as grower, fryer, adult male and female and so on.

Genral Management of Rabbits

Breeding

Rabbits of both sexes reach sexual maturity at the age of 6-7 months. The female rabbit is taken to the male rabbit cage for mating, which can be accomplished in the morning or evening. In most cases, successful mating takes just a few seconds and the male will fall down from the female, making a distinctive sound. To increase the likelihood of pregnancy and the size of the litter at birth, it is preferable to mate the female twice on the same day, once in the morning and again in the evening. Rabbits have a 30-day gestation period, and doe should be kept separate in the nest box about 20 days after mating. The doe plucks fur from her body to build a nest for the young before kindling (the act of giving birth by rabbit). Additional bedding material, such as gunny bag, paddy straw, or saw dust, is required to be placed inside the nest.

Care of new born

The majority of kindling occurs at night, and no assistance is usually needed. A doe gives birth to 6-12 young per kindling, with an average of 6 young per kindling. Rabbits are born blind and naked. They begin to grow hair four days



New Zealand White Rabbit



Soviet Chincilla Rabbit



Cage house



Rabbit Hutch

Source: https://www.researchgate.net/publication/273886912_BACKYARD_RABBIT_FARMING.

after birth and open their eyes ten days later. The baby rabbits' only source of nutrition for the first 20 days is their mother's milk. Does only nurse their kits once a day, for around 3 to 4 minutes in the early morning.

It's possible that some of the young ones are weaker than others and are unable to compete for suckling milk, particularly in a large litter. Every baby rabbit can be checked here, and those who are underfed can be made to suckle again exclusively. In certain situations, the doe refuses to let her babies suckle at all. In such situations, the farmer may use cotton or a dropper to feed the young one's cow's milk. After 15-16 days, the baby rabbits emerge from the nest and display a preference for green grass and concentrates while continuing to suckle the doe. They gradually begin to eat more solid food and rely less on the doe for nutrition.

Weaning

The litter is separated from the doe after 42-45 days. Ideally, the doe should be removed and the litter should be held together in the same cage to avoid separation shock. The rabbits can be fed green fodder, herbs and concentrates after they have been weaned.

Management after weaning

At 8-10 weeks of age, the young rabbits are tagged and the growers should be housed separately. The breeding does and bucks should be well fed in order for them to develop quickly. When the does reach 60% of their total adult body weight, they are ready to mate.

Feeding and watering

The rabbits' nutritional needs vary depending on their stage of development. An animal's average daily intake of balanced concentrate feed is 120-150 grammes, which should be given twice daily, in the morning and evening. Green fodder or hay may be added to the palletted feed, which is fortified with a mineral mixture, vitamin and salt. Greens are best served in the evening since this is when rabbits are most busy.

Kitchen and vegetable waste, as well as some selected grasses, tree leaves and root crops, can be used to sustain a small rabbit in backyard system.

Throughout the day and night, clean and fresh water should be available *ad libitum*.

Health coverage

One of the most crucial elements of effective rabbit farming is health insurance. The following are some of the most common rabbit diseases, as well as their symptoms and preventative and control steps.

Coccidiosis

It has a lack of appetite, a pendulous and distended belly, gradual fatigue, constipation and diarrhea, a rough hair coat, and sleepy eyes as it lies in the cage. To avoid this disease, 30 ml of Sulmet is mixed in 4 liters of water and given for two days, then 15 ml of medicine in 4 liters of water is given once a month for four days. Some medication can be given at 1.5 ml per kg body weight for 2 days, then 0.75 ml per kg body weight for another 4 days for curative purposes.

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 Loraxnelotion can be applied. Ascabiol is also effective against body mange and ear canker.

Financial Problems of the Rabbit Entrepreneurs

On all farms, 92.31 percent of rabbit entrepreneurs indicated that credit was not available at the required time. The most extreme response to this issue was Large farms accounted for 96.77 percent of the total, with small farms accounting for the rest 93.55 per cent of farms and 86.67 per cent of medium farms. Since then, in Himachal Pradesh, the rabbit industry is in decline. Banks only lend to entrepreneurs who are low-risk. It has a high bearing capacity and repayment

FINANCIAL PROBLEMS OF THE RABBIT ENTREPRENEURS

Sr.		Farm Size			
No.	Particulars	Small	Medium	Large	All farms
1.	Credit not available at appropriate time	93.55	86.67	96.77	92.31
2.	Credit given not supervised	95.70	93.33	96.77	95.27
3.	Available credit is inadequate	93.55	86.67	96.77	92.31
	Total number of farms	93	45	31	169

Source: https://globaljournals.org/GJSFR_Volume10/5-Problems-And-Constraints-of-Rabbitry-In-India-A-Study-of-Himachal-Pradesh.pdf

capacity. Rabbit, small entrepreneurs lack the confidence to take out a loan at this time when the rabbit business is going through a tough patch saunter. Approximately 95% of rabbit entrepreneurs on all farms indicated that credit is not properly monitored once it is provided. On broad, he got the best answer tiny and medium rabbits (96.77%), farms (96.77%), farms (96.77%), farms (96.77%), farms (96.77%) entrepreneurs and so forth). According to the rabbit entrepreneurs, that the credit given is insufficient Rabbits made up 92.31 per cent of the population. Accessible credit was stated to be scarce on all farms by entrepreneurs insufficient Among rabbit entrepreneurs of various sizes, the large farms had the highest response rate of 96.77 per cent, followed by small farms with 93.55 per cent. On small farms, its 86.67 per cent and on medium farms, it's 86.67 per cent.

CONCLUSION AND RECOMMENDATION

It can be seen that rabbits are very useful in commercial markets and are raised for several commercial purposes. There are several different tactics which people are accepting to culture or rear these animals. No any system can be said as best because as beautifully and consistently

one is using any one system, it will be beneficial for the herd and the farmer.

Learning by the habitation of the rabbit and providing a clean system will be helpful and make the herd healthy and productive.

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