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Popular Article

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Rabbit Farming

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Introduction

Rabbits are found in wild and domestic state in all parts of the world. They are used for meat, fur and wool production. They are also reared for show and fancy purpose. They are also used as laboratory animals. Rabbit farming is profitable and is less laborious comparable to other livestock farming. Rabbit farming gives a valuable extra source of income mostly in the hilly areas. It provides employment opportunities to young people. Its manure is excellent manure for fertilizing the agriculture fields due to its suitability for vermicomposting. Rabbit farming also provide income from manure.

Advantages of Rabbit farming:

- Investment of rearing is cheaper than other livestock. They require less space and food than other livestock.
- Rabbits are suited for both small scale production and large scale production. It can be reared both in rural and urban areas.
- Rabbits has faster growth rate. The gestation period for rabbits is about 32-35 days.
- It can be bred anytime of the year and can produce 20-40 young ones/year.
- Rabbit meat is lean and rich in protein. There is no religious taboo about consuming its meat. Young rabbit attain 2kg live weight within 12-14 weeks of age on high concentrate diet.
- There is low nutrient requirement. Females with 16 offspring requires less than 1/3 the feed energy than a cow with 0.9 calves.
- Rabbits can utilize forage protein more efficiently than other livestock's.
- Rabbits are adapted to any flexible environment.
- Feed unfit for human consumption and other livestock species can be efficiently utilized by rabbits. It can be reared on grain free diets or high forage low cereal diets.
- Small number of rabbits can be reared with kitchen waste. These small number of rabbits can have reared adequately by family labors, so the labor cost become minimal.

Constraints of rabbit farming:

- The biggest constraint being availability of germplasm. Germplasm available at central sheep and wool research institute (CSWRI), Avikanagar, Rajasthan are quite low for broiler type of rabbit.
- Lack of technical known how at farmer's level of farming.
- Organized market not available.
- Proper slaughter houses for rabbits unavailable.
- Good availability of wild rabbit plays vita role in low slaughter of rabbit.
- Most meat consumers recognize rabbit as toy/fancy/fur animal.

- Low consumer demand due to insufficient promotions and unsteady supply are major constrains leading to high prices and lack of product diversification.

Common breeds used in rabbit farming:

- Large breeds:
  - Flemish giant
  - White giant
  - Grey giant
- Medium breeds
  - New Zealand white
  - New Zealand red
  - California
- Small breeds
  - Dutch
  - Himalayan
  - Soviet chinchilla

Sexing in rabbit

Sexing is generally done along with weaning and with ear tattooing for identification. The vent area is pressed if a small slit like aperture appears then it's a female and a male will show slightly raised cylindrical round tip.

How to choose a good breeding stock?

1. Choose rabbits that have a good body confirmation and free from disease.
2. Do not move the purchased rabbit directly into rabbitry without quarantine.
3. Choose stock that have been productive for a long period of time.
4. Purchase a rabbit whose breeding records are kept.
5. Always see the record of parents. Does {females} with good mothering ability, high milk production and large litter size. Bucks {males} pass on good meat qualities.
6. Always select the animals that are strong and has good health appearance.

Feeding of Rabbits

- Since rabbits are mono gastric animals, they mostly consume grains and pulses, legumes, green fodders and even kitchen waste
- Dams imposes feeding patterns. A doe feeds her young only once in 24 hours
- Young rabbits start feeding grains within 3-4 weeks of age
- Rabbits normally feed throughout the day but nocturnal feeding is also most commonly seen
- These consume dry matter at the rate of 6-8% of their body weight out of which roughage can be up to 60%
- *Coprophagy* is the unique phenomenon in rabbits which enhances the digestibility of feed stuff and nutrients. The soft feces are rich in protein and B-complex

Housing of rabbits

- Type of Housing is dependent upon various factors like climate, location, size of rabbitry and space availability
- The major cause of mortality is due to high temperature caused due to poor ventilation.
- There are two major types of housing systems.
  1. Hutch system
  2. Shed system

Hutch System:

- Self-contentained cage \nest box.
- Can be moved around as per the need.
- Used for small scale rabbit farming and backyard farming.
- Floore space 50cm x 80cm and height should be 55cm.

Shed System:

- It is also called as indoor system.
- In this system cages are arranged inside the shed in single two or 3 tires
- Proper feeding should be provided
- Cage measurements can be
  Single cage: 60cm x 75cm x 45cm
  Kindling cage: 75cm x 90cm x 45cm
  Colony cage: 90cm x 120cm x 45cm

Common diseases of rabbits in India

Bacterial diseases:

1. Rhinitis [snuffles]: The mucous membrane of nasal sinus become infected by bacteria from inspired air or by direct contact with infected animal or contaminated objects.

2. Pneumonia: upper respiratory disease may spread to the lungs and cause pneumonia. Signs of pneumonia are depression, labored breathing,
bluish eye color in albinos and a nasal discharge.

3. Pyometra: It means pus in the uterus. The wall of uterus usually is dilated and the organ is filled with pus. Affected females will not produce and therefore are culled and often slaughtered. Treatment of this disease is attempted because the disease usually is not noticed until the female is slaughtered. Pets sometimes can be saved by ovariohysterectomy.

4. Orchitis: It is an infection in testicles. The testicles become enlarged and usually contains an abscess. Balanoposthitis [infection is limited to membranes covering the penis] appears as a reddening and swelling of the membrane covering the penis and white pis is present on these membranes. Treatment is attempted. However, balanposthitis is treated by applying antibiotic ointment.

5. Otitis media: It is the infection of middle ear of one or both ears. It causes filling of tympanic cavity with a purulent pus. If the infection spreads to inner the ear, then it will disturb the equilibrium of the animal.

6. Coccidiosis: It is the enteric disesase. It is caused by microscopic protozoal parasite that invades the intestine or liver. Treatment has only a temporary effect during early stages.

7. Mastitis: The breast become swollen and may become bluish in color {bluish breast}. It results from abrasions to the teats or insufficient removal of milk when too young are left with doe.

8. Tularemia: Sometimes called Rabbit Fever or Deer Fly Fever. It can be carried by many wild and domestic animals. This disease might be transmitted from rabbit tissues to humans.

Viral diseases:

1. **Myxomatosis**: The myxoma virus was isolated first in South America from diseased laboratory rabbits; the virus later was found to be a widespread natural infection in wild cottontail rabbits.
2. **Rabbit pox:** This rare disease can occur with or without manifestation of clinical disease.
3. **Rabbit papilloma:** Rabbit papilloma virus has been identified as the causative agent of wart like growth on the skin of cottontail rabbits.
4. **Fibroma**: Rabbit fibroma virus was isolated from nodules beneath the skin of wild cottontail rabbits. These viral fibromas (firm growths) were transmitted to domestic rabbits.
5. **Herpes virus infection Virus III or Herpesvirus funiculi:** of rabbits exists as a latent infection in some stock lines of domestic rabbits. The virus does not produce a natural disease, nor are other species of animals susceptible.
6. **Oral papilloma:** Wartlike growths in the mouth, especially on the lower surface of the tongue, are caused by a virus (one of the papovaviruses) different from the rabbit papilloma virus.
7. **Viral enteric diseases:** During the past decade, several viruses have been isolated from rabbits with diarrhea. Rotovirus, coronavirus, and adenovirus all have been incriminated in enteritis outbreaks.
8. **Viral hemorrhagic disease (VHD):** first was reported in China in 1984. Since then, it has occurred in many European rabbit-raising countries, in Mexico and in the United States.

Fungal diseases

Two main groups of fungi, Trichophyton and Microsporum, are found on rabbits and produce disease of the skin and fur under certain conditions.

Not only can rabbits serve as reservoirs for human infection, but humans can transmit their fungus infection to rabbits. Because they produce a similar disease known as ringworm, the two organisms are discussed together in this section.

Parasitic diseases Rabbits are susceptible to a number of parasites, but only a few are of economic importance. The problems caused by all of these parasites are greatly influenced by methods of feeding handling, and housing. If these are satisfactory, and if recently acquired animals are quarantined for a few days and checked for disease, most economically important parasitisms can be avoided.

External parasites

- Ear mites
- Fur mites
- Fleas and ticks

Internal parasites

- Roundworm
- Tapeworm
- Toxoplasmosis

Hereditary diseases:

1. **Glaucoma (buphthalmia)** occurs in both laboratory and commercial rabbit colonies. This condition is of interest to ophthalmologists because of its similarity to congenital glaucoma in humans, and rabbits may serve as a useful animal model.
2. **Splay leg and ataxia** in rabbits is due to one or more recessive genetic factors. The condition might be similar to the hip dysplasia found in certain breeds of dogs.
3. **Malocclusion** and tooth overgrowth, or "wolf teeth," have long been recognized as common problems in rabbit colonies.

Nutritional diseases

1. **Pregnancy toxemia** also known as "ketosis," this disease is a toxemia of pregnancy that is most common in first litter females. Signs of ketosis are dullness of the eyes, sluggishness, respiratory distress, prostration, and death after 1 to 4 days.
2. **Vitamin A deficiency:** Low-grade vitamin A deficiency adversely affects their productive performance of females, often before other signs are noted.
3. **Vitamin E deficiency: i**nfant mortality, characterized by death of entire litters at 3 to 10 days of age without clinical signs prior to death, has been associated with vitamin E deficiency.