

## **Rabbit Breeds**

### **Heavy weight breeds (4-6 kg)**

White giant

Grey giant

Flemish giant



## **Medium weight breeds (3-4 kg)**

Newzealand white

Newzealand red

Californian



## **Light weight breeds (2-3 kg)**

Soviet chinchilla

Dutch



## **Rabbit Farming**

### **Feeding management**

Rabbits relish types of grains (sorghum, bajra and other grains) and legumes.

Green fodders such as Desmanthus, Lucerne, agathi, kitchen wastes such as carrots leaves and other vegetable wastes are also relished by rabbits.

### **Nutrients to be present in the rabbit feed**



## Soviet Chinchilla Breed

Quality White Giant and Soviet Chinchilla breeds are available for sale at Department of Livestock Production and Management, Veterinary College and Research Institute, Palani, Tamil Nadu - 637002, Tamil Nadu. Phone: 0431-266491, 266492

## Rabbit Farming

### Feeding management

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### Nutrients to be present in the rabbit feed

Details of nutrients	For growth	For maintenance	For pregnancy	For lactation
Digestible energy (K.cal)	2500	2300	2500	2500
Protein (%)	18	16	17	19
Fibre (%)	10-13	13-14	10-13	10-13
Fat (%)	2	2	2	2

### Points to be remembered in feeding management of rabbits

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1. The teeth of rabbits are continuously growing. Therefore rearing rabbits with concentrate feed alone is impossible.
2. The time schedule for feeding should be maintained strictly. If there is late in feeding of rabbits, they become restless and which in turn reduces the body weight.
3. Due to the high temperature in the day time the rabbits won't take feed during day time. But they are active during night. Therefore the green fodder fed to rabbits at night time will help the rabbits to consume the green fodder without wastage. Because of this the concentrate feed should be given in the morning time.
4. Concentrate feed can be given in the form of pellets. If pellet feed is not available the concentrate feed mixed with water and made into small balls and given to rabbits.
5. For 1 kg rabbit 40 grams of concentrate feed and 40 grams of green fodder should be given for one day.

6. Rabbits always fed with fresh green fodder. The green fodder should not be put on the floor of the cages but they can be inserted in the side of the cages.
7. Clean fresh water should be provided to rabbits during all times of the day.



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Rabbit type	Approximate body weight	Amount feed/ day (g)	
		Concentrate feed	Green fodder
Adult male rabbit	4-5 kg	100	250
Adult femalerabbit	4-5 kg	100	300
Lactating and pregnant rabbit	4-5 kg	150	150
Yeung rabbits	0.6-0.7 kg	50-75	150

#### Sample concentrate feed mixture

Ingredients	Amount
Broken maize	30 parts
Broken and ground bajra	30 parts
Groundnut oil cake	13 parts
Wheat bran	25 parts
Mineral mixture	1.5 parts
Salt	0.5 part

ing Management of rabbits



## **Breeding Management of rabbits**

### **Breeding age**

- Female rabbits 5-6 months.
- Male rabbits 5-6 months (even though the male rabbits mature at the age of 5-6 months they should be used for breeding at the age of one year to get the quality younger rabbits)

### **Selection of rabbit for breeding**

- Rabbits can be selected at the age of 5-8 months after attaining adult body weight.
- Male and female rabbits should be selected for breeding from the high litter size.
- Healthy rabbits only selected for breeding. Healthy rabbits are active and the feed and water intake is usually normal. Apart from this they keep their body clean. The hair of the healthy rabbits is usually clean, soft and shiny.
- While selecting male rabbits for breeding with the above characters they should have two well descended testes in their scrotum.
- During selection of male rabbits they allowed to mate with a female rabbit know the breeding capability.

## **Oestrous signs or heat signs in female rabbits**

There is no specific oestrous cycle period in rabbits. Whenever the female rabbits allow the male rabbit for mating then the female rabbits in oestrous. Some times if a female rabbit is in heat, its vulva is congested. When a male rabbit is kept near to a female rabbit in heat or oestrous, the female rabbit shows depression of its back and raising of its behind portion of the body. At the same time if the female rabbit is not in heat it will go the corner of the cage and attack the male.

## **Breeding of rabbits**

### Information about the breeding details

Male: female ratio	1:10
Age at first mating	5-6 months. Male rabbits the age of first mating usually at 1 year of age to get a good litter size.
Body weight of the female rabbit during mating	2.25-2.5 kg
Gestation period	28-31 days
Weaning age	6 weeks
Time of mating after kindling	6 weeks after kindling or after weaning of the young rabbits
Age at sale	12 weeks
Body weight at the time of scale	Approximately 2 kg or greater than that

The female rabbits showing the signs or heat or oestrous taken to the male rabbit's cage. If the female rabbit is in correct time of oestrous that used to lift her tail and allow the male rabbit to mate with her. After successful mating the male rabbit fall on

one side and make a specific sound. One male rabbit should not be utilised for breeding not more than 3 or 4 days in a week. Similarly a male rabbit should not be utilised for breeding not more than 2-3times per day. The breeding male rabbits should be given adequate rest and good nutrition. In a rabbit there should be one male rabbit for 10 female rabbits. One or two male rabbits can also be additionally reared in the farm and they can be used if the rabbits used for breeding become sick.

Gestation period in case of broiler rabbits is 28-31 days. Pregnancy diagnosis of can be done by palpating the abdomen of the female rabbit 12-14 days after breeding. Palpation should be done in the abdominal area in between the hind legs. If there is round mass is palpated in between the fingers then the rabbit is pregnant. Those rabbits that are not pregnant after 12-14 days of mating, they again allowed for mating with the male rabbit. If a female rabbit is not becoming pregnant after three subsequent mating, that rabbit is eliminated or culled from the farm.

Twenty five days after mating there is usually increase in the body weight of pregnant rabbits from 500-700 grams. This increased weight can be

identified by lifting the rabbits. If the pregnant rabbits allowed to the male rabbit for mating the won't mate.

## **Care of Pregnant female**

After the pregnancy was done, the pregnant rabbits should be fed with increased quantity of concentrate feed from 100g to 150g excess than the normal feeding. The pregnant rabbit should be transferred to the kindling cage on 25days after mating. Five days before the expected date of mating nest box should be kept in the kindling cage. Dried coconut fibre or paddy straw is used as bedding material in the nest box. The pregnant rabbit pluck the hair in their abdomen and form a nest for the young ones one or two days before kindling. During this period the rabbit should not be disturbed and persons from outside should not allowed near the kindling cage.

Usually kindling takes place at early morning. Kindling usually completed for a period of 15 to 30 minutes. The dam her self clean her young ones in the early morning. Nest boxes should be examined in the early morning. The dead young ones should be removed from the nest box.

During examination of the nest box the dam become restless. So the dam should be removed before examination of the nest box.

### **Care and management of new born rabbits**

During birth new born rabbits eyes are closed and they don't have hair on their body. All new born rabbits are usually lying in the bedding material formed by the dam in the nest box.

Usually the dam gives milk to the young ones one time a day in the early morning. If we compulsorily make the rabbit to feed her young ones there won't be no milk secretion at all. The skin of those new born rabbits received the adequate quantity of milk from their mother is usually shiny. But the skin of those new born rabbits who has not received the adequate quantity of milk from their mother is dry and wrinkled in appearance and their body temperature is low and they look lazy.

### **Step mother feeding**

Generally a female rabbit has 8-12 teats in her udder. When the litter size is more than the number of teats the new born rabbits won't receive adequate quantity of milk and results in death of the young ones. In an addition the other conditions such as

death of dam, lack of maternal care, falling of young ones from the cage results in difficulty in the identification of the dams, the step mother is used for nursing the young ones.

### **Points to be considered while changing the litter to the step mother**

- The age difference between the litters to be changed and the litter of step mother should not be more than 48 hours.
- We should not change more than 3 young one / step mother

### **Weaning of bunnies or young rabbits**

Young rabbits allowed staying for first three weeks of age in the nest box. Later nest box removed from the kindling cage. Weaning of young rabbits or bunnies can be done at the age of 4-6 weeks. While weaning, first dam should be removed from the kindling cage and the bunnies allowed staying for 1-2 weeks in the same cage. Later the sex of the rabbits should be identified and the different sexes are raised in different cages. We should not suddenly change the diet or feed of the weaned rabbits.



## **Reduction of mortality rate in the bunnies**

Up to first 15 days of age the young rabbits are under the dam. During this period the breast milk of the doe or dam is the only food for the young ones. Death of the young rabbits in this period is mainly due to doe or dam. After 15 days of age the young rabbits able to take water and feed supplied to them. In this time they are more susceptible to diseases. Therefore it is advisable provide cooled boiled drinking water to the dam and the young ones. Hydrogen peroxide at the rate of 1 ml per liter of water is added 20 minutes before providing to the rabbits.

## **Advantages of Rabbit Farming**

- By rabbit rearing one can produce a quality protein rich meat for his own family
- Rabbits can be fed with easily available leaves, grains available in the home.
- Growth rate in broiler rabbits is very high. They attain 2 kgs at the age of three months.
- Litter size (Number of young ones born/kindling) in rabbits is high (around 8-12)
- When compared to the other meats rabbit meat contain high protein (21%) and less fat (8%).

So this meat is suitable for all age groups from adults to children.

## **Benefits of rabbit meat**

Rabbit meat is very delicious, healthy, and full of nutrients.

Our body needs many proteins to work usually and rabbit meat has many easy digestible proteins that help our body to function normally.

Rabbit meat contains proteins even higher than beef or chicken.

It is excellent for excellent body metabolism.

Rabbit meat is tastiest if prepared on flat top grill.

Eating rabbit meat is very beneficial as it is very healthy for us.

Let's see some of the benefits of eating rabbit meat.

### **Rich in proteins**

Rabbit meat is extremely rich in proteins.

Usually, when we eat different meats, we get proteins, but we also face digestive problems.

But rabbit meat is easily digestible, so you get all necessary proteins without any digestive issues.

Thirty-three grams of rabbit meat contains 66% of proteins.

### **Low in fats**

Rabbit meat is deficient in fats.

In 100 grams of rabbit meat, there are only 3.5 grams of fat.

It has many health benefits because of low fats.

It reduces weight and cholesterol levels.

A low-fat diet helps to keep us safe against heart disease and high blood pressure.

### **Beneficial for pregnant women:**

Doctors recommend easily digestible and full of nutrients food to a pregnant woman.

Rabbit meat is full of nutrients, fibres, and proteins, and it is easy to chew.

It is also perfect in taste, so rabbit meat is essential for pregnant women and children.

Due to its health benefits, it is given to children in their first feeding.

### **Cure high blood pressure:**

Rabbit meat contains a meager amount of sodium.

A large amount of sodium in our body reduces the ability of the kidney to remove the water, and that results in high blood pressure due to extra fluid.

So with a minimum amount of sodium rabbit meat helps in lowering blood pressure.

### **Healthy Heart**

Rabbit meat is rich in potassium.

A right amount of potassium in our body helps our heart to beat healthy as it improves the elasticity of blood vessels.

The more potassium you take, the more Sodium you release from the body through urine.

A low amount of sodium is very beneficial for our heart.

### **Healthy immune system**

Rabbit meat contains magnesium, and magnesium plays a vital role in the immune system.

Magnesium is used in more than 300 of the body chemical reactions.

It shows the importance of magnesium in our bodies.

### **Healthy bones and teeth**

Rabbit meat is very rich in calcium, and we know calcium is essential to keep our bones and teeth healthy.

Our bones continuously remove calcium and replace it with new calcium, so our body needs calcium to keep our teeth and bones strong.

If we do not have enough amount of calcium, it can lead us to osteoporosis (weakening of bones).

### **Sexual benefits**

Rabbit meat is an excellent source of zinc and zinc plays vital role in the development of male sex organs.

The deficiency of zinc in males reduces sperm count.

Zinc is also useful in producing sex hormones.

### **Reduce the risk of cancer**

Rabbit meat also contains selenium.

Selenium boosts our immune system and destroys cancer cells.

According to a study, people with a higher level of selenium in their bodies have a lower risk of many types of cancer like breast, lungs and prostate cancer.

### **Tastes good**

Rabbit meat is delicious.

The rabbit has a crispy skin with a delightful flavor.

It is even more mouthwatering than chicken.

You will love it in the first bite.

It can be prepared similar to chicken.

### **Nutrients chart of rabbit meat**

If you take 100 grams of rabbit meat, it will have

<b>Nutrients</b>	<b>Amount</b>
Potassium	343 mg (9% of DV)
Calcium	1%
Protein	33g (66%)
Iron	27%
Vitamin	15%
Magnesium	7%
Cholesterol	123 mg (41%)
Sodium	45mg (1%)



Calories	173
Saturated fat	1.1g
Polyunsaturated fat	0.7g
Monounsaturated fat	1g
Total fat	3.5 g (5%)

## **Rabbit Fur**

Rabbit are hunted in the wild and farm-raised for their meat and fur.

The fur of the rabbit is known for its warmth and is best known for use in the lining of coats.

Rabbit fur is also used in dressing to line hats, gloves and shoes.

It is also used for stuffing, bedding and making felt.

## **Clothing**

Clothing is the most common use of rabbit fur.

Rabbit hides, including the fur, are sewn into the lining of coats for warmth or comprise the decorative outside of winter coats.

Because rabbit hides are small, a coat completely made of rabbit fur will require several hides.

The smallness of rabbit hides makes them perfect for lining gloves and winter boots.

Loose rabbit fur can be spun to weave fabric for sweaters or yarn for mittens.

## **Stuffing**

Shorn white rabbit fur is sometimes used in stuffing toy dolls, such as animals.

It can also be used to fill comforters and pillows.

The soft fur is pliable for snuggling.

The fur also gives ample warmth for winters beneath comforters.

## **Bedding**

Blankets and sheets can be made from spun rabbit fur.

Rabbit fur hides can also be sewn together to make blankets or shams.

The fur is thickest and more uniform in winter, however, and limited to the color white.

Summer furs are varied in lengths but can give greater range in color, including browns and reds.

The fur is also dyeable.

## **Rabbit wool**

The term Angora hair or fibre actually refers to a coat produced by the Angora rabbit which is different from mohair and cashmere which comes from angora goat and cashmere goat respectively.

Angora wool is especially known for its extremely soft thin fibres.

This is also called a halo by some knitters referring to its fluffiness.

It is also known for its silk like texture and the fact that it is warmer and lighter than wool due to its hollow core nature.

It is not very elastic in nature so sometimes it is not exactly entirely angora but it is also mixed with normal wool sometimes to give it the perfect texture and floating feel.

Most of the angora wool is produced in China although Europe, Chile and the US produce some of it.

The best part is that the wool is sheared rather than plucked so it is easier on the animals with no harm coming to them as the rate of growth of the hair in these rabbits is quite high so there is a need to get rid of the hair growing on them as the excess

hair might harm them as they ingest a lot of their fur due to excessive growth.

The angora wool is lighter and warmer than normal wool.

The angora wool is good for the skin and has a super soft silk like texture.

Wearing Angora wool clothing improves blood circulation.

Angora wool is three times warmer than the normal wool.

It is beneficial to people with painful joints, sciatica, arthritis, muscle tension as it helps to maintain a warm body temperature.