



# Rabbits

## Feed Formulation Guidelines

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*– Feed Formulation Guidelines –*

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*Zambia Agribusiness Society*

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## Introduction

### Feed Requirements of Rabbits

The nutritional requirement of rabbits, as is the case in other mammals, varies according to age and productive performance. To obtain effective feeding efficiency, diets should be formulated to meet the needs of animals of a particular age or stage of production. Most rabbit farms are not large enough to justify the use of several different feeds, so it is a common practice to use just one diet for the entire herd. Since rabbit farming is becoming more intensive, it is suggested that rabbit producers should use at least two diets, a grower diet for fryers and a lactation diet for does.

#### (a) Nutrient Requirements for Growth

**Creep diets.** Creep diets are those diet which are fed to babies since requirements for growth are highest in them. This is decreased with increase of age. The baby rabbit is capable of a much greater growth rate as is commonly observed with this diet. In view of the high cost of creep diet, creep feeding does not appear to be an economically sound practice in rabbit production nowadays.

#### Composition of a 22% Crude Protein Creep Diet

Ingredients	Composition %
Oats (ground)	19.0
Wheat (ground)	10.0
Barley (ground)	10.0
Wheat bran	6.4
Soybean meal	12.0
Rapeseed meal	2.5
Fish meal	3.2
Dehydrated alfalfa meal	23.7
Dried brewers yeast	3.0
Dried distillers solubles	4.0
Dried whey	4.0
Molasses	1.0
Salt, iodized	0.5
Vitamin, mineral premix	0.775
DL-methionine	0.07
Feed flavour	0.05

#### (b) Nutrition Requirement at Weaning

It is the period when an animal's diet changes from milk to solid feeds. It is suggested that at weaning, a high-fibre, low-starch diet would be beneficial, followed by a switch two weeks later to a high-starch diet; at which time the capacity of the animal to digest starch would be higher. For maximum production efficiency, a feeding system using a highly palatable, high-fibre diet at weaning with a switch to a high carbohydrate fattening ratio would be beneficial.

### (c) Requirement of Diets at Gestation/Lactation

Lactating does have a higher requirement for protein, energy, calcium and phosphorus than do fryers. For maximum production at least 18% CP is required. Since, does in commercial leads are simultaneously pregnant and lactating, the same diet can be used for both gestation and lactation. During periods when does are not with litters, restricted feeding should be practiced to avoid obesity. Peak lactation in rabbits occur 21 days post kidding. In does bred 24 - 48 hours postpartum, milk production declines rapidly after 21 days of lactation, and the mammary glands prepare for the initiation of a new lactation period.

### (d) Lactation Diets in Rabbits

Ingredient	Composition %
Alfalfa meal	40.0
Ground barley	20.25
Wheat mill run	20.0
Soybean meal	14.0
Molasses	3.0
Fat	1.5
Dicalcium phosphate	0.75
Salt (trace, mineral)	0.5
Alfalfa meal	30.0
Ground oats	26.5
Ground barley	23.0
Soybean meal	16.0
Molasses	3.0
Dicalcium phosphate	1.0
Salt (trace, mineralized)	0.5

### (e) Complementary Diets

In certain situations, particularly in small-scale rabbit production, it would be desirable to free feed hay or greens and supplement this diet with a restricted quantity of high energy, high protein concentrate.

#### Feeding Schedule

A pregnant doe may consume 200 to 250g of balanced pelleted feed combined with good green grasses. Grass can be provided at 100g/day.

#### 1. Feed Consumption

Daily feed consumption is about 5% of body weight. Daily water consumption is about 10% of body weight. Lactating does will require more water and food. A rabbit keeper should make the diet schedule accordingly. Clean fresh water should be made available at all times.



## 2. Feeding of Rabbits

Milk is the only food for the baby rabbit up to the age of 15 to 21 days. Those that suckle survive and non-suckers may die. The rabbit keeper should ensure milk production in does by providing plenty of water and food. The young rabbit will start to eat solid foods (grass, concentrate) along with mother's milk from 15 to 21 days. After 21 days or so they eat more solids and suckle less. From weaning time onwards, the rabbits should be provided with more green food, vegetables and concentrates.

## 3. Time of Feeding

It will be a wise proposition if the food is offered at a particular time of the day. All concentrate rations should be provided at 7 a.m. and 5 p.m. Fresh bulky feeds should be offered in the evening since the rabbit is more active during that time. Food should be fresh, clean and free from dirt.



**Figure 1.** Feeding Rabbit

## 4. Some Consideration on Feeding

- Fresh grasses or legumes should be included in the ration to a level of 70%.
- 50% legumes plus 50% grasses may afford minimum dietary requirement for resting does and bucks.
- Dustiness of mash should be avoided by adding water to moisten the feed slightly.
- Prevent feed from becoming sour, since sour feed is not liked by rabbit.
- Clean and fresh water should be made available at all times.
- Does should not be fed with heavy diet right after kidding.
- Feed of does should be increased after 5 - 7 days after kidding.
- Abrupt change in the quality or quantity of feed should be avoided.

- Molasses at the rate of 5% should be added to the diet to increase acceptability of the diet.
- A small quantity of hay/straw should be fed in addition to the compound feed to prevent boredom and to provide bulk.
- Rapeseed oil meal should be heated before inclusion in the diet. It should be fed below 15% levels in diet.
- High calcium diet may interfere with the acceptance of does to the offspring and thus may affect the growth of the litters, therefore diet should not contain excess calcium.
- Dry does, bucks and replacement stock should be fed once a day at the rate of 100 - 120gm of pellet feeds.
- Young rabbits in growing stages and lactating does should be free fed by keeping grain/pellets in the feeder at all times.
- Good quality legumes should be kept before the rabbits in addition to pellet ration.
- Carrots, Green grass, Spinach, Turnip, Lucerne, barseem etc. should be provided as is a good succulent feed for rabbits.
- Other feed stuffs such as kitchen wastes, spoilt milk, damaged fruits may be fed by small-holder farmers, but they should be fed with caution considering their deleterious effects.

### 5. Utensils for feeding

A good number of watering utensils and feeders are used in the rabbit cages. The feeders should be attached to the rabbit cages so that feed can be put from outside. The feeder should be kept at a height of 5 - 8cm, so as to minimize contamination of feed by faeces, urine or water. Open food and water bowls are less hygienic than hoppers and water bottles. Earthen and aluminium bowls could be used since they are cheaper from an economic stand point. Hoppers should be made in such a way that food cannot spill out. The water bottles if used should be cleaned properly. Filling and cleaning of water bottles on a large-scale farm may require considerable time, therefore, automatic watering systems are gaining importance on big Rabbitries. The feeder, whatever the nature should be cleaned properly each day before use. There are various types of feeders, hoppers, water bottles and hay racks available.

**Source:** Namakkal KVK, Rabbit Farming

### Composition of Two Rabbit Feed Mixture

Bengal gram	14 parts
Wheat	30 parts
Groundnut cake/Gingelly cake	20 parts
Meat cum bone meal	10 parts

Black gram husk	24 parts
Mineral and vitamin mixtures	1.5 parts
Salt	0.5 parts
	<b>100</b>
Bengal gram	10 parts
Groundnut cake	20 parts
Gingelly cake	5 parts
Rice polish	35 parts
Wheat	28 parts
Mineral and vitamin mixtures	1.5 parts
Salt	0.5 parts
	<b>100</b>

### Feeding Schedule for the Different Categories of Rabbits

Item	Approximate body weight	Quantity to be fed per day	
		Concentrates	Green grass
Bucks	4 - 5 kg	150 g	600 g
Does	4 - 5 kg	150 g	600 g
Lactating does	-	200 g	700 g
Weaner (6 weeks)	600 - 700 g	50 g	200 g

Leaves of Murukku, Agathi and cultivated fodder grasses like Guinea, Napier and Para grass are palatable to rabbits apart from the leguminous fodder such as Cowpea, Lucerne, Stylosanthes etc.

The rabbits should be supplied adequate quantity of fresh clean water (they drink approximately 10ml/100g body weight per day and up to 90ml/100g body weight if lactating).

### Reference

<https://www.vuatkerala.org>