

Feeds and Feeding



Introduction

Rabbits are **monogastric** (they have a single stomach) and **herbivorous** (they eat plants). They need to receive nutrients in specific amounts to grow and perform at their best. Some examples of important nutrients you should provide for your rabbit include proteins, carbohydrates, lipids (or fats), minerals and vitamins. In the wild, rabbits eat a variety of grains, greens, roots and roughages to obtain the nutrients they need. Most domestic rabbits are given a pelleted feed that provides essential nutrients. Rabbit pellets consist mostly of ingredients from plants, primarily alfalfa meal and wheat middlings. Easy to feed and store, pelleted rabbit feeds are available from many companies and at most local feed stores. Feed is an important aspect of raising rabbits because it accounts for about 75 percent of your production costs.

Some rabbit raisers prefer to **formulate**, or mix, their own rabbit ration at the local grain elevator. The following feedstuffs are commonly used in rations for rabbits:

- ▶ **Green feeds** – growing plants such as grasses, weeds and leafy vegetables
- ▶ **Root crops** – sweet potatoes, turnips and beets
- ▶ **Cereal grains** – oats, wheat, barley, grain sorghums, corn and rye
- ▶ **Milled feed** – bran, middlings and shorts
- ▶ **Hays** – alfalfa, lespedeza and timothy
- ▶ **Protein supplements** – soybean meal, peanut meal and dried products
- ▶ **Salt**

When formulating a rabbit ration, make sure it will supply the rabbits with adequate amounts of the required nutrients.

Rations for dry does, herd bucks and growing young should contain:

- ▶ 12 to 15 percent crude protein.
- ▶ 2 to 3.5 percent fat.
- ▶ 20 to 27 percent fiber.
- ▶ 43 to 47 percent nitrogen-free extract (carbohydrate).
- ▶ 4 to 6.5 percent ash or mineral.

Rations for pregnant and nursing does should contain:

- ▶ 16 to 20 percent crude protein.
- ▶ 3 to 5.5 percent fat.
- ▶ 15 to 20 percent fiber.
- ▶ 44 to 50 percent nitrogen-free extract.
- ▶ 4.5 to 6.5 percent ash or mineral.

Although protein is an expensive part of the ration, rabbits can be fed higher levels of protein than those required for the type or stage of the rabbit if the ration is adequate in other nutrients. Therefore, it can be easier to use a single ration for all stages of rabbit production.

When you formulate a ration or diet for your rabbits, you must know about their nutritional needs. Also, if you want a rabbit ration that is economical, you need to know the composition, cost and availability of feedstuffs.

Feeding Systems

Two types of feeding methods, **limited feeding** and **free-choice feeding**, are typically used when feeding rabbits. Limited feeding involves placing a measured amount of feed (slightly less than the animals would normally consume) in a dish or crock for the rabbits each day. Free-choice feeding allows unlimited feed to be available to the animals at all times. Cocks or



feed dishes can be used for free-choice feeding but may result in quite a bit of wasted or contaminated feed. Using a hopper or self-feeder reduces the amount of wasted feed in free-choice feeding.

Keep rabbit feed in a dry place. Do not store feedstuffs for long periods. Over time, the nutritional quality will deteriorate and will be less beneficial to your rabbits. Keep the feed free of any type of contamination, especially from rodents. Keep feed ingredients and open bags of pellets in sealed containers at all times.

The amount of feed required by a rabbit will depend on many factors. Things to be considered are:

- ▶ The composition of the ration.
- ▶ The environment's temperature.
- ▶ The breed of rabbit.
- ▶ The size and age of the rabbit.
- ▶ The stage of the rabbit's life cycle.

Rabbits generally eat more at night than during the day. Weanling meat-type rabbits will eat about 4 to 6 ounces of food per day, depending on their size. As a general rule, a New Zealand doe and her litter will eat about 100 pounds of feed from breeding to weaning. Commercial meat-type weanling rabbits that eat a good balanced ration should achieve a feed conversion ratio of about 3:1 (3 pounds of feed to produce 1 pound of weight gain). An unbalanced ration or too much wasted feed can harm this important part of rabbit production.

Fresh Water

Water is the most important nutrient for rabbits. Be sure to provide your rabbits with clean, fresh water at all times. The amount of water a rabbit requires depends on its feed intake, feed composition and the temperature of its environment. When it's hot out, rabbits will drink large amounts of water quickly. For example, a medium-sized doe and her 8-week old litter can drink a gallon of water a day. When the temperature is below freezing, you will need to check your rabbits' water two or three times a day to make sure that they have access to unfrozen water at all times.



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Coprophagy

Rabbits are unique in that they produce two types of fecal material: a hard, dry fecal pellet and a soft or "night" feces known as **cecotropes**. The soft feces are produced in the **cecum** (a pouch located between the small and large intestines) and are consumed by the rabbit directly from its anus as they are excreted. This practice is called **coprophagy** (ka-prof-a-gee) or **cecotrophy** and usually takes place when the animal is alone. Some feces contain a mucus coating and are excreted in a cluster rather than as single pellets. This is the type referred to as hard feces. Coprophagy is a natural process that provides the rabbit with B vitamins and protein, both of which are excreted in the soft feces. Night or soft feces are much higher in protein and water and lower in fiber than hard feces. By ingesting this mixture, the animal recirculates the components, and they remain within the body.

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