

## **FEEDING THE PET RABBIT**

Rabbits can be excellent pets. They are generally friendly and fairly easy to care for. A pet bunny can be a good companion and bring its owner lots of joy. In return, you must give your pet the care it needs to stay healthy and happy. The importance of the right diet cannot be stressed enough. A rabbit has a very different digestive system from a human and it needs the right foods to keep it working properly. The right amount of foods is important, also. Too much of a good thing can still lead to obesity; a condition all too common in pet rabbits that also leads to health problems. This article will outline the proper diet you should provide for your rabbit to reduce its chance of becoming seriously ill.

Digestion in rabbits is not the same as in humans because rabbits are hindgut digesters. This means that some of the foods they eat are not broken down in their stomach but in an organ called the cecum; an organ that can be compared to the human appendix. Food enters the rabbit cecum after it passed through the rabbit's stomach and small intestine. In rabbits, just like humans, most foods are broken down by the stomach and absorbed in the small intestine. Plant fiber, however, is a substance which cannot be broken down by the stomach. Rabbits utilize plant fiber as a food source anyway, because they can break it down in their cecum.

In the cecum there are bacteria, harmless to the rabbit, which break down the plant fiber and use it to make vitamins and proteins. Every so often, usually at night, the cecum empties its contents into the rabbit large intestine to be eliminated from the body. The cecal contents emerge from the bunny just like other feces except they are dark, softer, and often unpleasantly aromatic. The rabbit does not let these nutrient rich cecals go to waste. They are often eaten by the rabbit as they leave the body. On this second trip through the digestive tract, the rabbit's digestive system can now absorb the vitamins and proteins that were produced by the cecal bacteria. This process of digestion in rabbits is a delicate balance and can easily be disturbed by an improper diet. It is important to follow the guidelines within

to ensure your bunny's health. Diet related illnesses can include gastrointestinal "shut-down", improper tooth wear leading to the formation of jaw abscesses, gastroenteritis with life threatening diarrhea, and obesity.

Obesity has become an all too common problem seen in bunnies. Often the presenting problems are not correlated to obesity by the owners. Problems may include: soft stools that become stuck to the bunny's bottom causing irritated, "scalded" skin; dry, flakey skin and unkempt hair coat in the back or rump area; or in some extreme cases, splayed front or rear legs. While this list is not all inclusive and each problem may not be related solely to obesity; a significant number of these rabbits are way too fat!

The soft stool may be a reflection of an improper diet (discussed below) the fact that the stools are clumping to the rabbits rear-end can be due to the rabbit being too fat to affectively lift its rear high enough to avoid soiling itself while defecating. In addition, the rabbit may be too fat to bend and clean itself properly. The resulting clumped fecal matter then remains in close contact to the bunny's skin and causes fecal scalding which can be very painful to the rabbit. Dry, flakey, and unkempt hair located on the rabbit's rump can also be a result of a fat bunny not being able to reach that area to groom itself. The underlying cause of splayed legs is not totally due to obesity but can be partially attributed to heavy bunnies without sufficient muscle mass to hold up there increased bulk.

Feeding guidelines below address proper foods to maintain a healthy digestive system. In addition, their relative amounts address maintaining a healthy weight. Too much of any proper food, in combination with a pet rabbits sessile lifestyle, can still lead to obesity.

Pellets have often been the "staple" of a pet rabbit's diet. They are made from alfalfa meal, grains for energy, a protein source like soybean meal, and small amounts of needed minerals. All of these things are important to the rabbit. However, the pellets sold in most pet stores and pet supply stores contain more protein and energy foods than what is healthy for mature, non-breeding rabbits. Although they are not labeled as such, commercial pellet diets are made for rabbit breeding and growth purposes and contain about 17 percent protein with only about 14 percent fiber. A mature, non-lactating pet bunny should receive less than 13 percent protein in its diet and over 18 percent fiber to stay healthy. Therefore once a young rabbit's growth slows (about six months of age) it should be switched to a pellet

formula that is specifically labeled as a high-fiber maintenance diet. Otherwise, the high protein and low fiber content of the commercial diet can create conditions in the pet rabbit's hindgut which encourage the growth of harmful bacteria. This circumstance, called enteritis, usually results in life threatening gastrointestinal "shut-down" or severe diarrhea. In addition, the extra energy contained in these diets often results in an overweight bunny.

It is also important to discuss the amount of pellets that should be offered to the pet bunny. Even the high-fiber maintenance diets should not be feed "free-choice". They should make up only a small portion of a rabbit's daily intake. Starting guidelines for high-fiber maintenance pellets are: small rabbits such as dwarves – 1/4 cup daily; medium-sized rabbits such as mini-lops or rexes – 1/3-1/2 cup daily; larger breeds such as New Zealands or Giants – 1/2 cup daily. These are guidelines and should be dependant on the amount consumed of the following two types of foods.

Although the alfalfa meal in pellets is a good source of small fiber particles, rabbits also require daily amounts of bulk fiber from grass hays. These include Fescue, Timothy, Bermuda, Orchard, Brome, and Oat hay. The large fiber particles these hays provide moves quickly through the rabbit's digestive tract, stimulating needed gut motility. Without grass hay to aide this process, the gut can become stagnate or "shut-down" and encourage the growth of harmful bacteria that may lead to enteritis. High protein hays like alfalfa can also lead to enteritis and/or obesity. Grass hays should be fed "free-choice" and selections should not be brown, yellow, or smell like dust. The most common reason for pet bunnies to refuse grass hay is the hay is not fresh. Large pet supply stores may unintentionally allow their hays to sit around in a warehouse or storeroom for months. By the time the consumer purchases the hay it could be months old!

Fresh vegetables and fruits should make up a significant percent of your pet rabbit's diet. Fresh foods and hay mimic the types of foods that wild rabbits forage for on a daily basis. It is important to select foods from this group that your pet not only enjoys, but also has proper nutritional content. Foods such as celery and lettuce are not good choices because they are mostly water. Rabbits may fill up on these foods and not eat foods that are better for them. Recommended fresh foods are dark, leafy greens such as kale, parsley, turnips, collards, dandelion, carrot and beet tops, and cilantro. Offer a nice handful of greens daily. Your bunny will let you know what its favorites are! Carrots, apples, and

bananas can be natural favorites of some rabbits. Just ask any bunny aficionado that has had to leave the room to eat a banana so as not to be swarmed by a banana-junkie bunny! These fruits should be fed in strict moderation as the high sugar content can unbalance the delicate nature of rabbit digestion or lead to obesity. Most obese bunnies are being fed way too many treat-foods. However, a rabbit accustomed to fruit treats may be easier to medicate when the need arises as bunnies will often take medications offered to them hidden in their favorite fruits.

As you can see, your pet rabbit has very specific dietary needs. However, none of the requirements are difficult to meet. You must simply provide the right type of pellets in the right amount, the proper hays, and some healthy fresh foods daily. By following these guidelines, you can keep your bunny fit, trim, and healthy for life.

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