


Rabbit Health and Nutrition

Recognizing the Normal Rabbit

What does a normal healthy rabbit look like? When you are able to recognize a healthy rabbit you will be more likely to see changes when they occur.

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- Rabbit Skill:** Examine a rabbit and record its behavior
 - Life Skill:** Observing
 - Success Indicator:** Observes and records rabbit behavior. Recognizes abnormal behavior
 - Science Standard:** Characteristics of organisms

“Hop to it!”

Does your rabbit act differently when you come to feed it than when you come to watch it? What does your rabbit spend most of its time doing? Grooming, drinking and eating, sleeping, running around its cage? Does your rabbit’s activities/behavior change depending on the time of day? Early morning, mid-day, evening or night? To best help your rabbit adapt to its surroundings, you need to establish a daily time table. Always feed, water, clean and care for the cage at the same time every day. Observe and record your findings for your rabbit once each week for a month.



Rabbit Chart

| Characteristics | My Rabbit Week 1 | My Rabbit Week 2 | My Rabbit Week 3 | My Rabbit Week 4 |
|------------------------|------------------|------------------|------------------|------------------|
| Stance | | | | |
| Movement | | | | |
| Appetite | | | | |
| Eyes and nose | | | | |
| Skin and hair coat | | | | |
| Body waste & discharge | | | | |
| Pulse rate | | | | |
| Respiration rate | | | | |
| Sounds | | | | |
| Weight | | | | |
| Overall behavior | | | | |

Rabbit Rap

Share What You Did

What did you observe? What are the normal characteristics of a rabbit?

Process What's Important

What is a normal rabbit stance? What is the normal movement of a rabbit? What might cause a rabbit to lose its appetite?

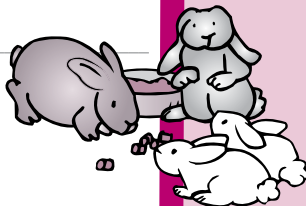
Generalize to Your Life

How are the characteristics of a normal rabbit similar or different to your own health?

Apply What You Learned

What can you do differently to keep your rabbits healthy?

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Rabbit Facts

Care of External Organs

Ears. A healthy rabbit must have highly mobile ears that turn in the direction of each new sound. The inside of the ear must be inspected regularly and cleaned when necessary by wiping gently with a little olive oil or baby oil. Cotton or wool swabs may be used.

Eyes. If the eyes are bright and attentive there is not cause for worry. Dull eyes are a sign of poor health or old age. Discharging eyes are a certain sign that the rabbit is sick. Drafts can cause a rabbit's eyes to water. Infections or injuries to the eyes should always receive professional treatment.

Nose. A healthy rabbit's nose should always be dry. One of the most certain signs of disease is a runny nose, which indicates a respiratory infection. A wheezing or snuffling sound when listening to the chest is often an indication of lung infection. Respiratory infections can also be caused by cold drafts and dampness. The discharge from the rabbit's nose contains disease organisms that can quickly spread to other stock through sneezing, snuffling or coughing.

Nails. The rabbit's nails or claws continuously grow. They must be regularly inspected for over growth, especially in older animals. If the nails grow too long the rabbit has difficulty moving, and if they are not clipped, the toes themselves can become misformed. The nails should be clipped with a nail clipper similar to the type used for cats and dogs. Be careful not to cut the nails back too far.

Feet. The soles of a rabbit's feet should be inspected regularly for signs of injury or accumulations of dirt between the toes.

Bounding Ahead

1. Visit with a rabbit breeder and discuss the procedures used to keep rabbits healthy. Report what you find with your helper.

Sanitation Situation

Practicing sanitation is the best way to control disease in your rabbitry. Your rabbits depend on you to keep them healthy. In this activity you'll outline how to keep everything clean.



Rabbit Skill: Show how to clean rabbit equipment.
Life Skill: Communicating with others
Success Indicator: Demonstrates how to sanitize rabbit equipment and facilities.
Science Standard: Properties of objects and materials

“Hop to it!”

Complete the chart for each of the four situations. Describe how the situation might effect the rabbit and what you can do to prevent it.



| Sanitation Situation | Effect on Rabbit | Prevention |
|--|------------------|------------|
| Algae growing in water bottle | | |
| Matted fur stuck to bottom of hutch | | |
| Piled manure beneath hutch | | |
| Molded, dried feed stuck to side of feed crock | | |



Give an illustrated talk or presentation on cleaning rabbit equipment and facilities. In the space below list 10 things you do to keep your rabbits healthy.

10 Ways I Keep My Rabbits Healthy

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

Rabbit Rap

Share What You Did

What did you include in your talk? How do you keep your rabbits healthy?

Process What's Important

How do you disinfect equipment? How does clean equipment help prevent diseases?

Generalize to Your Life

How did giving a presentation help you learn about cleaning equipment?

Apply What You Learned

How does helping and sharing with others help you learn?

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A pet male rabbit should be neutered to prevent a tendency to spray urine.

Rabbit Facts

Cleaning Equipment

Clean cages and equipment help prevent diseases in rabbits. Sanitize the equipment every month or whenever your rabbit has had a disease. Use a chlorine bleach solution to sanitize.

Put one cup of chlorine bleach in a gallon of water. Use this solution to wash the crocks and feeders. Rinse well. After you have removed the fur and manure from the cage with a wire brush, put some of the chlorine bleach in a spray bottle and spray the entire cage. Let it dry before you return the rabbits to the cage. If the cage has a wooden floor, it needs to be cleaned every day and sanitized every week. Other disinfectants can be used, but make sure they will not irritate the rabbits.

Cleaning Tips

- Clean the feeding and watering equipment daily. Clean the hutches and cages at least once a week.
- Let your equipment dry in the sun. Direct sunlight is also a disinfectant.
- Use a vacuum or a stiff bristle brush to remove loose fur on cages and other equipment before it becomes a problem.
- Disease can also come from using old cages or nest boxes discarded by other breeders or former rabbit enthusiasts. Do not use equipment from these sources until they are disinfected with bleach and direct sunlight.



Bounding Ahead

- 1.** Conduct an experiment by filling a water bottle with fresh water and then examining the quality of water each day and record your findings.
- 2.** Visit a rabbitry and ask about their cleaning and sanitation plan.

Chef Hare

Chef Hare needs your help to prepare meals for his many friends. The only problem is, he is not sure what rabbits need to eat to stay healthy. He does know that a balanced diet consists of the right amount of proteins, carbohydrates, fats, vitamins and minerals, which are contained in a commercially pelleted rabbit feed.



- Rabbit Skill:** Reading and understanding a feed tag
- Life Skill:** Planning and organizing
- Success Indicator:** Interprets feed tag of own rabbit ration
- Science Standard:** Properties of objects and materials



“Hop to it!”

Below are two rabbit feed tags. Read the labels carefully to determine the level of protein, fiber and fat content in each feed.

Manufactured For: XYZ Rabbit Company

GROWER & BREEDER

GUARANTEED ANALYSIS (per pound)

| | |
|-------------------------------|----------|
| Crude Protein, not less than | 17.0% |
| Crude Fat, not less than | 3.0% |
| Crude Fiber, not less than | 12.0% |
| Crude Fiber, not more than | 15.0% |
| Calcium (Ca), not less than | 0.8% |
| Calcium (Ca), not more than | 1.0% |
| Phosphorus (P), not less than | 0.5% |
| Salt (NaCl), not less than | 0.45% |
| Salt (NaCl), not more than | 0.65% |
| Vitamin A | 8,000 IU |

INGREDIENTS

Alfalfa Meal*, Corn*, Wheat Middlings*, Roasted Soybean Meal*, Kelp Meal*, Mechanically Extracted Soybean Meal*, Yeast Culture, Vitamin A Supplement, Vitamin D3 Supplement, Vitamin E Supplement, Choline Chloride, Niacin, Riboflavin, Thiamin, Vitamin B12 Supplement, Dried Lactobacillus Fermentation Product, Dried Aspergillus Oryzae Fermentation Product, Dried B. Subtillus Fermentation Product, Monocalcium Phosphate, Dicalcium Phosphate, Calcium Carbonate, Magnesium Sulfate, Potassium Sulfate, Magnesium Oxide, Zinc Proteinate, Zinc Sulfate, Manganese Proteinate, Manganese Sulfate, Iron Proteinate, Ferrous Sulfate, Copper Proteinate, Copper Sulfate, Cobalt Carbonate, Calcium Iodate, Sodium Selenite, Salt

*Certified Organic Feed Products

FEEDING INSTRUCTIONS

Dry Does and Herd Bucks:

For maintenance 2 oz. per 8 pounds of body weight

Active Bucks: 4 to 6 oz. per 8 pounds of body weight

Lactating Does: Feed ad libitum

Growers (4 to 8 weeks): Feed ad libitum

Net weight 50 pounds (22.72 Kg)

Protein _____
Fiber _____
Fat _____

Cupboard Show Rabbit Pellets

GUARANTEED ANALYSIS

| | | | |
|-------------------------|-------|-------------------------|-------------|
| Crude Protein, min ... | 14.0% | Calcium (Ca), max | 1.2% |
| Crude Fat, min | 2.5% | Phosphorus (P), min ... | 0.5% |
| Crude Fiber, min | 15.0% | Salt (NaCl), min | 0.4% |
| Crude Fiber, max | 20.0% | Salt (NaCl), max | 0.9% |
| Calcium (Ca), min | 0.7% | Vitamin A, min ... | 2,700 IU/lb |

INGREDIENTS

Alfalfa Meal, processed grain by-products, plant protein products; cane molasses, vegetable oil, calcium carbonate, monocalcium phosphate, dicalcium phosphate, salt, vitamin A acetate, D-activated animal steryl (source of Vitamin D3), vitamin E supplement, choline chloride, niacin, vitamin B12 supplement, calcium pantothenate, riboflavin, pyridoxine hydrochloride, thiamine mononitrate, menadione dimethylpyrimidinol bisulfite (source of vitamin K), folic acid, zinc oxide, zinc sulfate, ferrous sulfate, manganese sulfate, manganous oxide, copper sulfate, ethylenediamine dihydriodide, calcium iodate, cobalt carbonate, sodium selenite, yucca schidigera extract, propionic acid (a preservative), sorbic acid (a preservative), mono- and di-esters of 1,2, propanediol, butylated hydroxyanisole (a preservative), butylated hydroxytoluene (a preservative).

FEEDING INSTRUCTIONS

Feed Show Rabbit Pellets to adult show rabbits as follows:

Small Breeds – feed 3 to 4 oz. daily

Large Breeds – feed 4 to 6 oz. daily

IMPORTANT NOTE: Feeding recommendations can be adjusted as needed for body and fur condition.

FEEDING TIPS: Provide plenty of fresh, clean water at all times. Never feed any feedstuffs that are moldy, musty or suspect in any way. Show Rabbit Pellets are a complete feed. Additional hay or other feedstuffs are not required and may dilute the nutrient levels resulting in depressed performance. Rabbits should be changed slowly from one feed program to another over a 5- to 7- day period. The new feed should be mixed with the old feed to allow the rabbit to adjust smoothly to the new food.

CUPBOARD MILLING COMPANY

General Office
Clover, Ks 99999-9999

Protein _____
Fiber _____
Fat _____

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Using the feed tag on the left, determine the feed ingredient with the highest volume.

Rabbit Rap

Share What You Did

What feed ingredients are in most rabbit feeds?
Which ingredient had the highest percent (%) of total?

Process What's Important

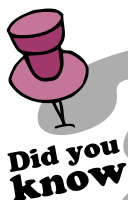
What are the five nutrients a rabbit needs in its diet?
Did your feed tag have any content with a withdrawal time?

Generalize to Your Life

How do your parents use the five nutrients to prepare meals for you?

Apply What You Learned

What will you feed your rabbits to be sure they have a "balanced" ration?



Contrary to popular belief, rabbits cannot live on lettuce and carrots alone!

Rabbit Facts

Rabbit Feed and Feeding

Feed is the largest expense in raising rabbits. Rabbits need a well-balanced ration that meets their nutritional needs and tastes good. A commercially prepared rabbit ration from a reputable feed company usually supplies the right amounts of protein, energy, fiber, minerals and vitamins to meet your rabbits needs. Most commercially prepared pellets are round and about $\frac{1}{4}$ inch long.

Different rabbits need different amounts of feed. In general, 2 to 3 ounces of pellets daily are enough for small breeds, $3\frac{1}{2}$ to 4 ounces for medium breeds and 4 to 8 ounces for the larger breeds. Adjust feed to meet the needs of the individual animal.

A regular feeding schedule is important. Try to feed at about the same hour each day. Some breeders feed both at night and in the morning.

Store feed in a container with a tight-fitting lid (like a garbage can, for example). Do not store feed for longer than 3 or 4 weeks. Feed stored for longer periods will deteriorate and lose its nutritional value and taste.

Bounding Ahead

1. Find rabbit feed tags from three different companies and review the feed ingredients to see how they differ. Give a talk on your findings.
2. Review the Food Guide Pyramid and determine if your diet is balanced.