

Sand and Sage Round-Up
RABBIT STUDY GUIDE
Senior Division
(14 years of age & up as of December 31)

Questions will come from:

Colorado 4-H Ethical Care of Rabbits handout
Meat Quality Assurance
Rabbit Study Guide

You should know the meaning of the following terms.

Agouti - A rabbit fur color pattern that has three or more bands of color with a definite break between each color.

Blemishes - Flaws or defects, especially those that affect appearance.

Breeder - One who breeds or raises a special variety or varieties of rabbits.

Buck - An unaltered male rabbit.

Coccidiosis - A disease caused by protozoan parasites or one-celled animals that injure the lining of the bile ducts of the liver, intestines.

Condition - The physical state of a rabbit; its health, cleanliness, texture, moult or fur and grooming.

Conjunctivitis - The inflammation of inner membrane of the eyelid. Also called Weepy Eye.

Conformation - Body structure conforming to the standard type of the breed represented.

Disqualification - One or more permanent defects, deformities or blemishes that make a rabbit unfit to be registered, to win an award in competition or to take part in an exhibition.

Doe - An unspayed female rabbit.

Elimination - The taking of a rabbit out of the show. One or more defects presumed to be temporary and curable.

Four Class Rabbits - Rabbit show category for all breeds having ideal adult weight under nine pounds. The four show classes are: senior bucks, senior does, junior bucks and junior does.

Fryer - Young meat rabbit under five pounds.

Gestation - The period of time that a doe is pregnant (carries her young) from breeding to kindling (28-32 days).

Kindle - The process of giving birth to young rabbits.

Kit - A baby rabbit under 16 ounces.

Lapin - French work for rabbit. In the fur trade, it is dyed rabbit fur.

Moult - Process of shedding or changing the fur, one to four times yearly depending upon genetic inheritance.

Luster - Brightness and brilliance of fur.

Pair - A male and female rabbit.

Rabbitry - The area or building in which a group of hutches and rabbits are kept.

Service - Mating act of the buck with the doe.

Six Class Rabbits - Rabbit show category for all breeds having ideal senior weight of nine pounds and over. The six show classes for these rabbits are: senior bucks, senior does, intermediate bucks, intermediate does, junior bucks and junior does.

Snuffles - Contagious infection of the nasal passages and respiratory organs, usually terminating in chronic illness.

Tattoo - The permanent identification mark of a rabbit which is placed in the left ear. The A.R.B.A. number goes in the right ear.

Weaning - The process by which young rabbits are removed from the doe to prevent nursing. A young rabbit is weaned when it is between four to eight weeks old, depending on breeding schedule and breed of rabbit.

You should be familiar with the Colorado ethical care of rabbits guidelines.

You should know how to dress for the show ring.

1. Shirt with collar, No tank tops
2. Pants with a belt
3. No cap or hat
4. Hair combed

You should know how to figure:

Profit or loss on your project.

Total income minus total expenses

$$\$100 \text{ per pen minus } \$66.00 \text{ (total expenses)} = \$34.00 \text{ (total profit)}$$

You should know:

- 1) The most important element in a rabbit's diet is water.
- 2) An all-wire cage for a 6-7 lb. Rabbit should be at least 2' wide by 18" high by 2' long.
- 3) Outside cages need a shady roof and protection from rain, wind drafts, dampness and direct sun during the hot summer months.
- 4) Remove all droppings from the cage every day.
- 5) Rabbits need a balanced diet to grow and reproduce. Feed them commercially prepared 14%-16% protein rabbit pellets daily.
- 6) Uses of Rabbits:
 - Breeding Stock - Success depends on your ability to breed and raise top-quality animals, and to keep accurate, complete records.
 - Meat - If you are sure you can comply with the processing laws and can provide a steady supply, check out locally owned grocery stores, neighbors and friends to see if they have a need for rabbit meat.
 - Fur - The cash market for tanned fur is limited, however hides can be tanned for use in making novelty and craft items.
 - Wool - The Angora rabbit is one breed raised for its wool. If you want to raise Angoras, you should first learn where the wool can be marketed for a profit.
 - Laboratory Use - You will need to check in your area for research facilities that buy rabbits. A license for this is required in most states.
 - Pets - Pet stores may be a good place for you to sell extra rabbits or rabbits that do not have proper color or markings. Again, you will need to check the legal and health requirements.
- 7) An average rabbit will eat four pounds of rabbit pellets to gain one pound of weight. This is called feed conversion.
- 8) A rabbit hide is called a pelt.
- 9) A rabbit has five toes and the front feet and four on the back feet.
- 10) A doe can have four or five litters a year. Rabbits can be bred all year round.
- 11) A rabbit kit's eyes open when it is about ten days old.
- 12) A rabbit's ears help cool the rabbit and regulate its temperature.
- 13) Your rabbit needs a well-balanced diet. The five nutrients your rabbit needs are: proteins, energy, minerals, vitamins and water.
- 14) Rabbit Conditioning Tips:
 - A. Feed and water your rabbit at the same time every day.
 - B. Do not let your rabbit get too fat. Feed a measured amount each day.
- C. Rabbits will take a treat such as bread or an apple. Give them this only occasionally; too much may make your rabbit sick.
 - D. Does with litters need to be full fed (feed before the rabbits at all times).
- 15) Diseases and parasites are common and natural for all living things, so expect some in your rabbits. Watch for any unusual action or appearance in your rabbit that may be a sign of disease. Well-cared-for rabbits in clean, roomy hutches are the least likely to have diseases.
- 16) There are over 40 recognized breeds of rabbits.
- 17) At eight weeks of age a commercial meat type rabbit should weigh four pounds and be ready for fryer marketing.

RABBITRY SANITATION IS CRITICAL TASK

- 1) What are some characteristics of the proper environment for housing rabbits?
Hutches should be clean, comfortable, and safe.
- 2) Which is harder on your rabbits - cold weather or extreme heat?
Rabbits can tolerate cold temperatures, but extreme heat will kill them. So, in the summer, locate your hutch in a shady spot.
- 3) Do drafts affect your rabbits?
Yes - wind and drafts can cause snuffles and other illnesses.
How can you prevent drafts?
Locate the hutch in an area not affected by wind and install the proper roof and sidewalls.
- 4) How often should feeding and watering equipment be cleaned?
Clean water bottles twice a week, and feed and water crocks daily. Use hot, soapy water and a disinfectant. Allow the feed crocks to dry completely before replacing the feed.
- 5) How often should the entire hutch be cleaned?
Clean the entire hutch at least twice a year with hot, soapy water and a disinfectant. Allow the hutch to dry completely before returning the rabbits to their cages. (Note: Always remove rabbits before attempting any type of cage cleaning or disinfecting.)
- 6) What should you do with dead rabbits?
Remove dead animals from the rabbitry immediately and burn the carcass.
- 7) How do you properly manage manure accumulation under a self-cleaning hutch?
Remove and compost manure weekly. Sprinkle lime over the manure to reduce odor; sprinkle a pelleted fly control over the manure to reduce the number of flies.
- 8) Describe a method of removing fur and waste clinging to the bottom of the hutch.
Remove fur and waste by using a propane torch to remove any stubborn buildup. Brush away remaining ashes and clean entire compartment with a solution of bleach and water. (Note: Always remove rabbits before attempting any type of cage cleaning or disinfecting.)
- 9) How do you keep strange animals out of the hutch?
Enclose or fence in the hutch.

RABBIT SAFE HANDLING AND CAGING

- 1) What clothing is appropriate to wear when handling rabbits?
Wear clothing that will prevent scratches such as a long-sleeved shirt or gloves.
- 2) Where should you position feeding and watering equipment in a rabbit's compartment?
Depending on the type of equipment - it may be placed inside the compartment on the floor at the front corners, or hung outside on the front of the compartment.
- 3) What is the purpose of the nesting box?
It provides seclusion for the doe during kindling and comfort for the litter afterwards.
What materials should you place in the nesting box?
Cover the bottom of the nesting box with sawdust or wood chips; then add a little dry grass or straw. Immediately before kindling the doe will pull fur from her breast to also place in the box.
Where should you place the nesting box in the doe's compartment?
Place it at the rear of the compartment and away from the doe's latrine area and watering source.

4) Describe the proper method for picking up a rabbit.

Gently stroke the rabbit and speak calmly and quietly. Next, place one hand under the rabbit just behind the front legs; place the other hand under its rump. Use the hand near the rabbit's front legs to lift, and the other hand to support the rabbit's weight. Next, hold the rabbit next to your body and direct its head toward the corner formed by your elbow. Your lifting arm and body support the rabbit - just like tucking a football - and your other hand is free and rests on the rabbit's back to provide extra security.

How do you provide extra control when picking up a rabbit?

With one hand, grasp the loose skin over the rabbit's shoulder and enclose its ears. Then place the other hand under the rabbit's rump and lift the rabbit while pulling it toward your body. Now, resting the rabbit on your forearm, place one hand underneath the rabbit's body and one hand on the back of its neck. (Note: this method may damage the fur and flesh over the rabbit's back, and is especially harmful to the more delicate coats of Rex and Satin rabbits.)

5) Why should you cage a pregnant doe / doe and litter away from strange or potentially aggressive animals?

If disturbed, the doe may stamp her feet and accidentally injure or kill some of her kits.

6) Why should you move the breeding doe into the buck's compartment?

Rabbits are territorial and the doe may be more interested in defending her compartment than in mating with the buck.

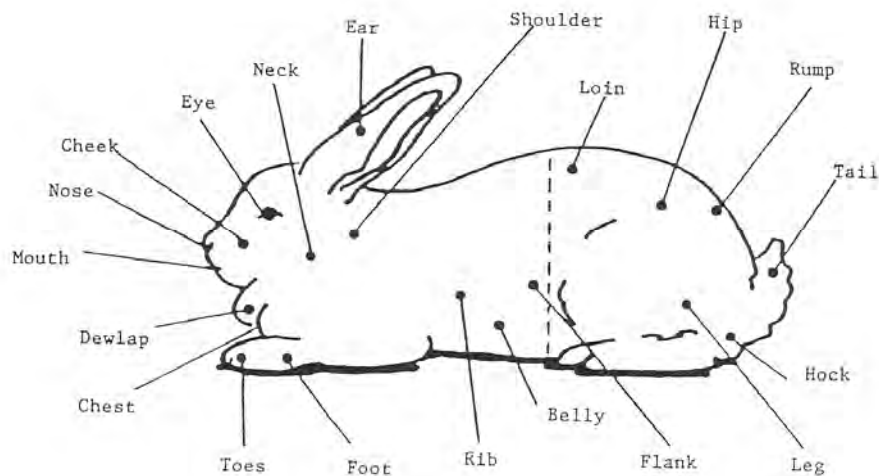
How should place the doe into the buck's compartment?

Place the doe into the buck's compartment hindquarters first.

7) How do you know if mating has taken place?

If the male mounts the female and then falls to one side, mating has taken place. If the rabbits do not mate within 5 minutes, repeat this process the next day.

PARTS OF A RABBIT



Rabbit Hunt

Breed	Variety	Pounds Ideal Mature Weight		# in Show	Primary Use			I'd like to own	
		Buck	Doe		Meat	Fur	Show	Yes	No
American	Blue, White	9-12	10-12						
Angora, English	Colored, White	5-7	5 to 7-1/2						
Angora, French	Colored, White	7-1/2 to 10-1/2	7-1/2 to 10-1/2						
Angora, Giant	White	8-1/2+	9+						
Californian		8-10	8-1/2 to 10-1/2						
Cinnamon		8-1/2 to 10-1/2	9-11						
Champagne D'Argent		9-11	9-1/2 to 12						
Checkered Giant		11+	12+						
Chinchilla, American	Black, Blue	9-11	10-12						
Chinchilla, Giant		12+	13+						
Chinchilla, Standard		5-7	5-1/2 to 7-1/2						
Creme D'Argent		8 to 10-1/2	8-1/2 to 11						
Dutch	Black, Blue, Chocolate, Gray, Steel, Tortoise	3-1/2 to 5-1/2	3-1/2 to 5-1/2						
English Spot	Black, Blue, Chocolate, Gold, Gray, Lilac, Tortoise	5-8	5-8						
Flemish Giant	Black, Blue, Fawn, Light Gray, Sandy, Steel Gray, White	13+	14+						
Florida White		4-6	4-6						
Harlequin	Magpie, Japanese	6-1/2 to 9	7 to 9-1/2						
Havana	Chocolate, Blue, Black	4-1/2 to 6-1/2	4-1/2 to 6-1/2						
Holland Lop	Colored, Broken	To 4	To 4						
Jersey Wooley	Agouti, Pointed White, Selfs, Shaded, Tan	To 3-1/2	To 3-1/2						
Lilac		5-1/2 to 7-1/2	6-8						
Lop, English	Broken, Colored	9+	10+						
Lop, French	Broken, Colored	10+	11+						
Lop, Mini	Colored, Broken	4-1/2 to 6-1/2	4-1/2 to 6-1/2						
Netherland Dwarf	Agouti, Patterned, Selfs, Shaded, Tan, any variety	To 2-1/2	To 2-1/2						
New Zealand	Black, Red, White	9-11	10-12						
Palomino	Golden, Lynx	8-10	9-11						
Polish	Black, Chocolate, Blue-eyed White, Ruby-eyed White	To 3-1/2	To 3-1/2						
Rex	Black, Blue, California, Castor, Chinchilla, Chocolate, Lilac, Lynx, Opal, Red, Sable, Seal, White	7-1/2 to 9-1/2	8 to 10-1/2						
Rex, Mini	Broken, Castor, Opal, White	3 to 4-1/2	3-1/2 to 4-1/2						
Rhinelander		6-1/2 to 9-1/2	7-10						
Sable, American		7-9	8-10						
Satin	Black, Blue, Californian, Chinchilla, Chocolate, Copper, Red, Siamese, White, Broken	8-1/2 to 10-1/2	9-11						
Silver Fox	Black, Blue	9-11	10-12						
Silver Marten	Black, Blue, Chocolate, Sable	6 to 8-1/2	7 to 9-1/2						
Tan	Black, Blue, Chocolate, Lilac	4 to 5-1/2	4-6						



COLORADO 4-H ETHICAL CARE OF RABBITS AND GUINEA PIGS

Rabbits and guinea pigs are fun to watch. They rely on you for their food, water, housing and health care, because they live in small cages or containers. Pay careful attention to the special needs of rabbits and guinea pigs.

Housing

Cages for animals must be large enough to provide for normal postural adjustments. In general, this means the top is above the head when the animal stands normally, and floor space must be at least 1½ to 2 times the body length for cage width and length for each animal enclosed.

Cages and furnishings must be free of sharp edges or potentially damaging features. Floor grates must be smooth and comfortable.

Ambient temperatures should not exceed 90 degrees Fahrenheit to avoid heat stress. Acclimate animals gradually to cold. Do not subject them to drafts. If housed outdoors, animals must have protection against sun, wind and precipitation.

Maintain a normal, regular light cycle. Do not keep animals in complete darkness or light for longer than 16 hours.

Rabbits

Provide nest boxes for does about to kindle. Maintain them until the young are well-furred and moving about freely.

If cages are not in a building, they must provide shelter from precipitation, wind, cold and heat. One way to provide this protection is to place the cages in shade with the roofs and solid sides to the north. Removable panels can cover open wire sides as needed.

Hygiene

Thoroughly sanitize all cage surfaces and furnishings. At least once a month, clean with detergent and water and then rinse. Sanitize floor grates more often if visibly soiled.

Sanitize water bottles and feed containers at least every two weeks or more often if they become visibly dirty. Disinfect cages and furnishings between animals.



**Colorado
State**
University
Cooperative
Extension

Rabbits

For bacterial disinfection, soak or wipe down cages with 10-percent household bleach after removing all dirt and debris. Effective contact is three minutes. Rinse thoroughly. Sanitizing will partially remove coccidial oocysts, but flame or treat the cages with 10-percent household ammonia to kill all. Rinse thoroughly.

Guinea Pigs

Change contact bedding at least once a week or as it becomes soiled, damp or when it smells of ammonia.

Disinfect surfaces by soaking in or wiping down with a 10-percent solution of household chlorine bleach. Effective contact time is three minutes. Rinse thoroughly.

Feed and Water

Check animals for feed available at least daily. Remove powdery fines from the feeder. Rabbits or guinea pigs cannot eat them effectively. Discard any food or water contaminated by the animals' urine or feces.

Rabbits

Feed rabbits a diet of complete-diet rabbit pellets or clean alfalfa hay with salt available. Clean supplementary vegetables thoroughly.

Rabbits must have access to clean, fresh water at all times. Change water at least every other day.

Do not offer dirty or dusty feed to animals. If rabbits are housed outdoors and water freezes, offer fresh water at least once a day.

Guinea Pigs

Feed a basic guinea pig feed. It should be fresh to guarantee adequate vitamin C level. If you supplement vitamin C in the water, change water daily. If you feed greens or vegetables as treats or for vitamin C, they must not accumulate in the cage to wilt or mold. Clean thoroughly before feeding.

Animals must have access to clean, fresh water at all times. Change water at least every other day. Water should be accessible to all animals without standing on hind legs. If animals are housed outdoors and water freezes, offer fresh water at least twice a day.

Handling

Rabbits

Never lift a rabbit by the ears. Support a mature rabbit and hold to prevent uncontrolled kicking with its hind legs.

Guinea Pigs

Pick up and handle animals so that you provide support to the entire torso.

Veterinary Care

Isolate sick animals from well animals and provide with veterinary care.

Rabbits

A veterinarian should recommend any medications given. Withdraw for the recommended time before slaughter.

Guinea Pigs

Any medications administered to guinea pigs should be given only on the advice of a veterinarian.

Transportation

Provide animals water if transport time exceeds six hours, especially if temperatures are high. Transport containers or cages may be smaller than normal cages.

Rabbits

Remember rabbits generate a great deal of body heat. Closed containers may cause heat stress even at "safe" temperatures. Heat stress may be fatal to rabbits. It is imperative to avoid temperature extremes.

Guinea Pigs

Cages must allow animals to stand or lie down normally. Avoid extremes of temperature during transport. Heat stress may be fatal to guinea pigs. Change bedding if wet or excessively soiled.

Showing

Rabbits and guinea pigs will be rejected for exhibit for the following health reasons: discharges from the eyes, nose or mouth; signs of diarrhea; signs of excessive itchiness or self-inflicted scratches or other wounds; depression or lack of responsiveness; skin lesions such as flaking, thickening or cracking; or widespread broken hair shafts or loss of hair.

Animals also will be rejected for exhibit for any alteration or enhancement of natural coat color. Provide feed, water and other considerations as outlined in the section about housing. Clean exhibit boxes and cages, disinfect between animals, and as needed throughout the exhibit period.