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# Rabbits

**A  
4-H  
PROJECT**



4-H CIRCULAR 141  
MAY, 1957  
UNIVERSITY OF MISSOURI  
COLLEGE OF AGRICULTURE  
AGRICULTURAL EXTENSION SERVICE  
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# RABBITS

A

4-H

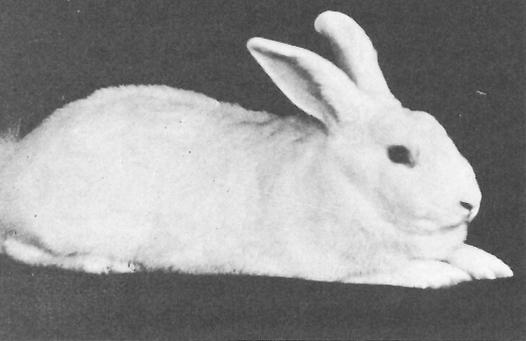
PROJECT

*By Arthur C. Ausberman*

The production and marketing of rabbits is an ideal project for many 4-H members. It is especially adapted to urban areas and small farms where facilities and limited space make other livestock projects impractical. Many Midwest producers have developed good local markets for the pearly white, fine-grained, nutritious and palatable meat. Pelts, although of value, are usually difficult to market in small quantities.

## Here's Your Opportunity To---

- own and work with live animals especially where other animals may not be practical.
- apply a complete set of husbandry approved practices.
- acquire marketing experience.
- get experience in keeping records.
- develop initiative and resourcefulness.
- assume individual responsibility.
- provide nutritious and palatable meat for the family table.
- make a profit.



## SELECTING

## A BREED

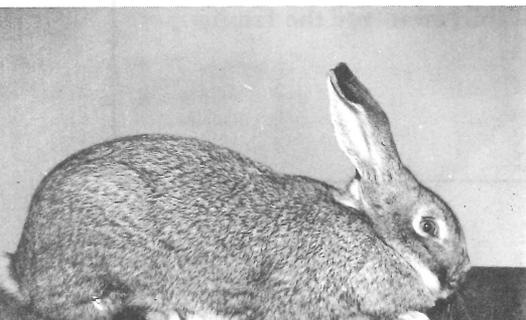
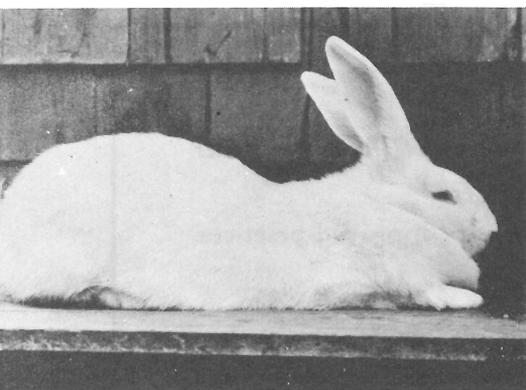
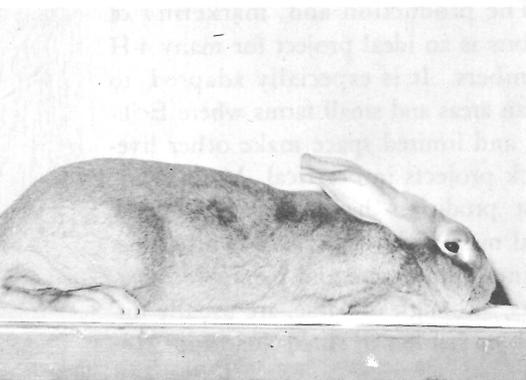
The breed of rabbits to select depends upon the uses to be made of the project. Rabbit fanciers or breeders for show or pet purposes might select from a large number of breeds. When profit from meat sales and maybe pelts are of most importance as it is in most 4-H projects, the more common meat breeds are advisable selections.

The **New Zealand White** is a popular breed for both meat and fur. White furs bring higher prices than colored ones.

The **New Zealand Red** is a very good meat rabbit and is preferred by many producers. Either of these New Zealand breeds will produce fryers averaging 4 pounds live weight at eight weeks of age and 10 to 11 pounds at maturity.

The **White Flemish Giant** is another very popular meat rabbit and good fur producer. Matured animals of this breed will weigh 18 to 20 pounds. They require a larger hutch than other rabbits since they are the largest of all breeds.

The **Chinchilla**, although produced for meat, is also an excellent fur producer. Mature chinchillas weigh up to 12 pounds.



### From top to bottom:

1. New Zealand White doe
2. New Zealand Red buck
3. White Flemish Giant doe
4. Giant Chinchilla buck

# HUTCHES AND EQUIPMENT

## HUTCHES

Many types of hutches are used to house rabbits, but the most successful ones meet several essentials. These are: 1. **Dryness**—protection from rain and snow with a tight roof. 2. **Ventilation**—plenty of air and protection from summer heat. 3. **Sunlight**—construction so that sunlight reaches all parts sometime during the day to help control diseases and aid in sanitation. 4. **Convenient**—easy to clean and arranged so that feeding, watering and caring for rabbits can be done quickly. 5. **Economical**—light weight movable hutches are ideal.

For 4-H projects a single tier double

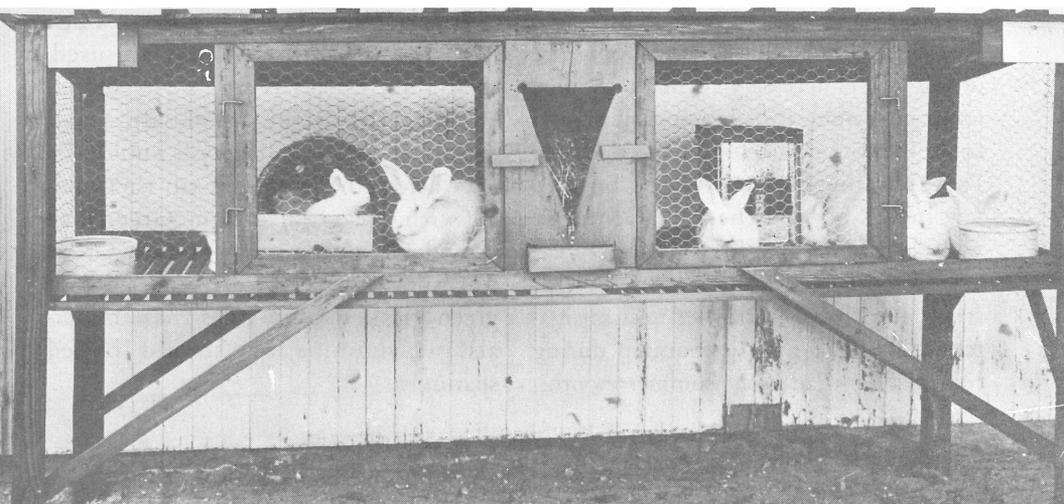
hutch is very practical. Figure 5 shows such a hutch made from scrap lumber and poultry netting for sides. Sizes of hutches vary but the standard size is usually 4 feet long, 2½ feet deep and 2½ feet high supported by legs 2½ feet off the ground. The floor should be made of ⅜ inch hardware cloth supported over litter trays beneath.

A board approximately 12" x 24" placed on the hardware cloth floor provides a resting place for the rabbit. Such a resting place, particularly for the heavy breeds, aids in preventing sore hocks. The board is easily removed for cleaning.

The litter may be ground cobs, sawdust or shavings. This makes cleaning the hutch quick and easy. Wood slats may be used as the floor, but are harder to keep clean than hardware cloth.

This open type hutch will need added protection during winter months. Wood panels for the back and ends may be used or the hutches may be moved into a well ventilated building.

Fig. 5—An economical, movable hutch, which is practical in design. (U.S.D.A. Photograph)



## NEST BOXES

A good nest box for each doe is very necessary. It should provide adequate space for the doe and her young litter but be small enough to keep them warm in the winter by their own body heat.

Nest boxes vary in size, but should be approximately 12" x 12" x 24". Apple boxes or wood packing cases are commonly used to make nest boxes. The top and bottom should be made removable to make cleaning easy. The top may not be needed in summer months but is very important during cold weather. Lining the box in winter with two thicknesses of corrugated cardboard will provide insulation.

For a warmer nest the standard size nest box may be placed inside a larger box so that a space of three inches on all sides except the front and top can be packed with straw or other insulating material.

Good nest boxes can be made from 100-pound nail kegs. For the average size doe, a keg with a head diameter of 11 ½ inches is recommended. Three or four holes one inch in diameter should be bored in the back end of the keg near the top to provide ventilation.

A board nailed across the open end of the keg is necessary to make the doe jump into and out of her nest. It should cover the lower ⅓ to ½ of the opening. By extending the ends of the board a few inches beyond the keg opening it will prevent the keg from rolling.

Nest boxes should be filled with straw, hay, leaves, or other nesting material. More bedding is required during cold weather than in the summer months.

## FEEDING

Proper feeds and feeding methods are just as important to success with rabbits as with any other livestock. There are two things to keep in mind when planning what feeds to use.

1. **The correct combination of feeds to furnish a balance of carbohydrates, proteins, fats, minerals and vitamins.**
2. **The most economical combination of feeds for best results.**

**Carbohydrates**—Common grains such as oats, wheat, barley, grain, sorghums or rye may be used as whole grain or cracked. Wheat products such as bran, middlings or shorts may be used in mash mixtures. Dry bread may be used as a part of the grain, perhaps once or twice a week.

**Proteins**—Soybean or linseed meal or pellets are the most common protein feeds used in rabbit feeds. Pellets are preferred to meal. They are more palatable to some rabbits. Alfalfa, clover, or lespedeza hay are also sources of protein.

**Fats—Minerals—Vitamins**—When high quality grain and hay are used, these three essentials are usually supplied, with the exception of salt. Small blocks of salt or salt spoons should be kept before the rabbits, if salt isn't mixed with the grain ration. Green hay provides minerals and vitamins. Green feed such as apples, carrots, lettuce or green grass, also provides these minerals and vitamins, but should be fed sparingly.

**Water**—Water is just as important as any other part of the ration. Keep clean water before the rabbits at all times, especially in hot weather. A doe and her young will drink up to a gallon of water in 24 hours. In freezing weather offer water at least once a day.

## GOOD RATIONS:

*For does, herd bucks and growing does and bucks:*

### Grain and Protein Mixture

- 2 pounds whole oats or wheat
- 2 pounds whole barley
- 1 pound soybean or linseed meal or pellets

### Roughage

Alfalfa or high quality clover hay and root crops

### Salt

Free choice at all times

*For does and litters:*

The same ration as above, except use 2 pounds of soybean or linseed meal or pellets instead of one pound.

## HOW MUCH TO FEED

Don't overfeed grain. About  $\frac{2}{3}$  of the ration may be legume hay, such as alfalfa. The balance of the ration should be the grain and protein mixture. Carrots, green feed like alfalfa, grass or lettuce can be fed in small amounts in addition. Don't let does get too fat.

Mature does without litters, mature bucks and growing young stock should receive 3 to 6 ounces of hay and 1 to 2 ounces of grain mixture daily. Does with litters should be given all the

grain and protein mixture they will eat in 24 hours. If they have some left, reduce the next feeding. Good quality hay should be kept before all rabbits all the time.

## WHEN TO FEED

Regularity in feeding is more important than the number of times rabbits are fed daily. Since they eat more at night, late afternoon or evening feeding is preferred by many rabbit growers. Never feed sour or greasy table leftovers.

It may be more convenient to feed commercial rabbit feeds. If so, be sure to follow the company's directions. Cheap feeds may prove more costly in the end.

## BREEDING

Does and bucks should not be mated until both are nearly mature. Medium-sized breeds such as the New Zealand Whites or Reds can be mated when 7 to 8 months old. Large breeds like White Flemish Giants should be at least 9 months of age.

The gestation period of rabbits averages 31 days. Some does bear their litters in 29 days and a few require more than 31 days.

It is advisable to produce four litters per year. Allow one month (31 days) for gestation and two months for raising the young, then breed again.

Breeding difficulties may be experienced by waiting too long after weaning the litter to breed the doe. Some producers prefer to breed the does a few days before weaning.

By breeding two or more does at the

same time it is possible to transfer young from a large litter to a small litter. Do not try to keep does after they are four years old.

A separate hutch is necessary for each doe and her young. The buck must also have his own hutch. A buck can breed as many as 10 does by breeding at different times.

Always take the doe to the hutch of the buck for breeding. Avoid excitement in placing the doe with the buck. After breeding the buck usually falls over backward or on his side. Remove the doe to her own hutch immediately.

One mating is all that is recommended. If the doe doesn't accept the buck in four or five minutes, remove her and try again the next day. It may be necessary to restrain the doe for mating. This requires special skill and isn't always satisfactory, however a little practice will teach the holder the proper method. An accurate record of the breeding date for each doe must be kept so that the doe may be properly handled at kindling time.

## MANAGEMENT

### HANDLING

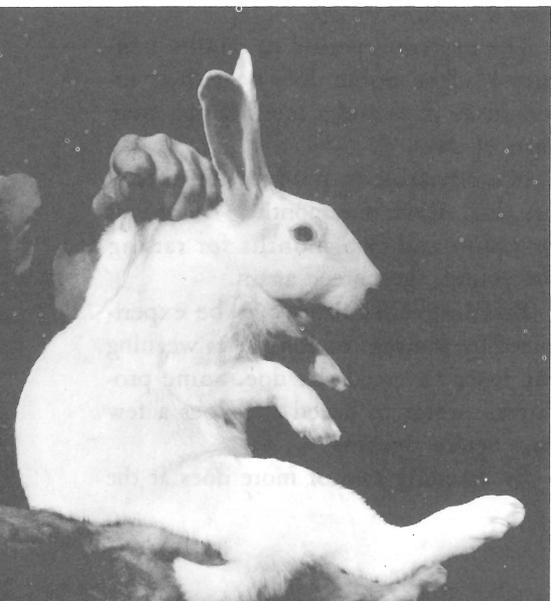
Never lift rabbits by the ears or legs. Injuries may result. Young or small rabbits may be lifted and carried by grasping the loin gently, yet firmly with the heel of the hand toward the tail of the animal.

For medium-weight and heavier rabbits, take hold of the loose skin over the shoulders with one hand and place the other hand under the rump. (Fig. 6) This supports the weight from beneath. Keep feet turned away from you to prevent scratches.

### CARE AT KINDLING TIME

A nest box filled with dry straw should be placed in the hutch 27 days after mating. The doe will pull fur from her body and line her nest before kindling. Do not disturb the doe just before kindling or until she has quieted down afterward. During this time the amount of feed offered should be reduced. A small quantity of green feed is good at this time.

A day or two after kindling the litter should be inspected. Remove any very small, abnormal or dead young, being careful not to disturb the doe. To handle roughly or to scare the doe might cause her to kill or disown her young. A



**Fig. 6—How to lift a medium-weight rabbit. Note that left hand supports weight. (U.S.D.A. Photograph)**

nervous doe may be put at ease with a carrot or other green feed. No more than eight young should be left with the doe. Large litters may be shared with small ones if they don't vary more than 3 or 4 days in age.

## WEANING

Litters do better if left to run with the doe until 6 or 8 weeks of age. At 8 weeks the young should be ready for market or if kept for breeding stock should be removed to rearing pens. The doe should be rebred at this time.

## SANITATION

A strict sanitation program is the best guard against disease and parasite losses. Prevention costs less than the cure. Remove manure, soiled bedding and stale feed daily. Keep hutches dry. Wash water crocks and feed troughs often. Use hot soapy water then rinse in clear water, drain well and dry in the sun. If sun drying isn't practical, rinse the equipment in a disinfectant solution after washing and then rinse with clear water.

Nest boxes should be cleaned and disinfected before using a second time.

Rabbits showing symptoms of disease should be isolated from the herd immediately. If the condition does not improve or appears serious it may be best to dispose of the animal. Detailed information on diseases and parasites may be secured from the Bureau of Animal Industry, Washington 25, D. C.

**Fig. 7—How to hold a rabbit for dislocating neck in slaughtering. (U.S.D.A. Photograph)**

# MARKETING

The sale of the rabbit meat is likely to give you the most income. Some of this may be from live rabbits, but more profit can be had by proper slaughtering and sale of meat. A great deal of "know how", time and money is necessary to develop a market for breeding stock.

## SLAUGHTERING AND SKINNING

To slaughter a rabbit, hold it by the hind legs with the left hand and place the thumb of the right hand on the neck just back of the ears, with the four fingers extended under the chin (see figure 7.) Push down on the neck with



the right hand, stretching the rabbit; press down with the thumb and quickly raise its head. This dislocates the neck making the rabbit unconscious and prevents struggling.

Hang the carcass on a hook inserted between the tendon and the bone of the right hind leg just above the hock. Remove the head immediately to permit thorough bleeding. Remove the tail and the left rear leg at the hock, and cut off the front feet.

Cut the skin from the hocks of both hind legs to the root of the tail. Separate the cut edges of the skin from the carcass and pull the skin down over the animal being very careful to leave all fat on the carcass. Fat on the carcass is valuable, but reduces the pelt value when left on the skin.

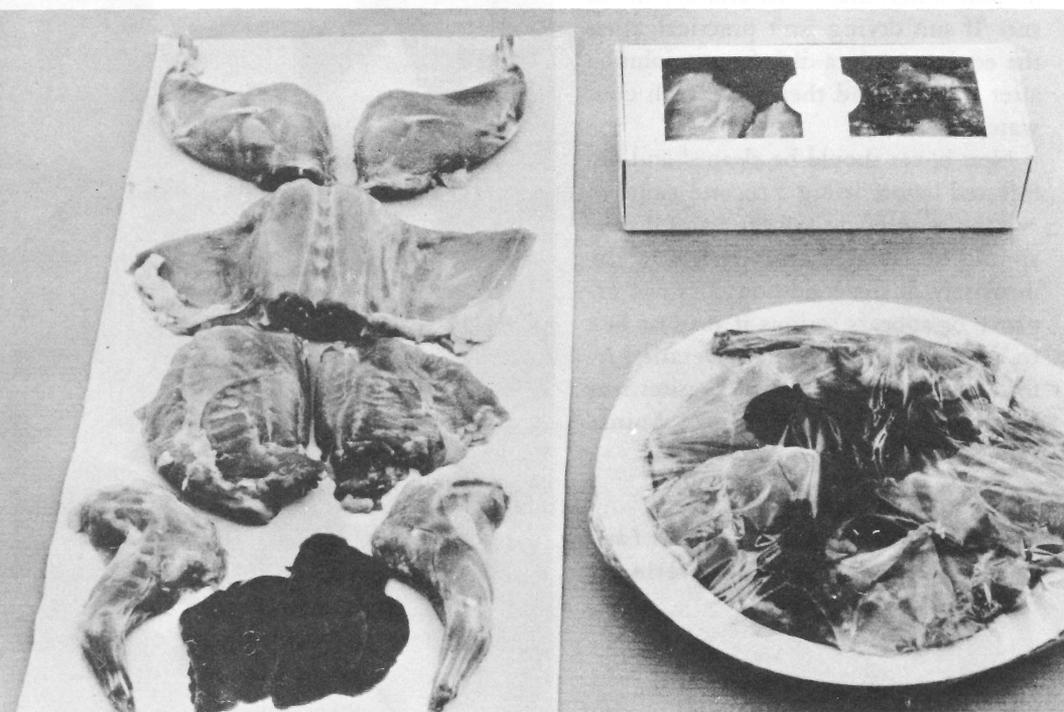
After skinning slit the carcass along

the median line of the belly and remove the entrails, leaving the liver in place. Remove the right hind foot by cutting off at the hock. Rinse the carcass in cold water to remove any blood and hair. Do not leave the carcass in water longer than 15 minutes. It will absorb water and cause adulteration of the meat thus reducing quality. One method of cutting the carcass is shown in Figure 8.

### RABBIT SKINS

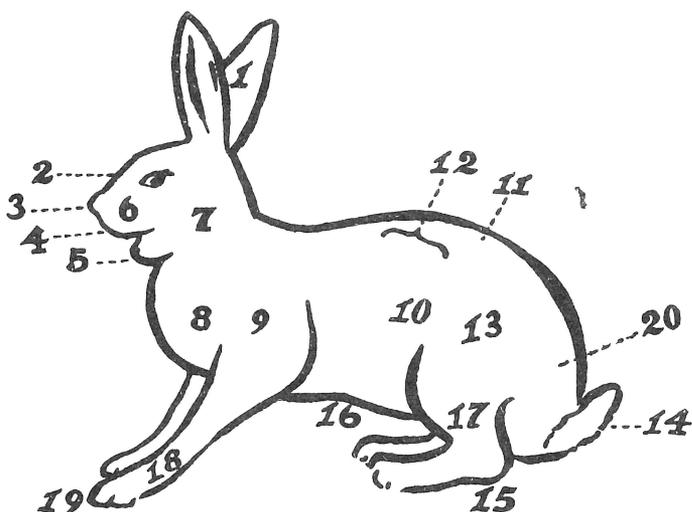
Skins or pelts in small lots may be difficult to market. Pelts from young or fryer rabbits are not prime and therefore are of limited value. It is advisable to check local markets for prices and details of how to handle and prepare for market.

**Fig. 8—One method of cutting the carcass and two methods of packaging. (Courtesy of Fish and Wildlife Service, U. S. Dept. of Int.)**



## PARTS OF A RABBIT

1. -ear
2. -eye
3. -nose
4. -mouth
5. -dewlap
6. -cheek
7. -neck
8. -chest
9. -shoulder
10. -flank
11. -loin
12. -saddle
13. -hip
14. -tail
15. -hock
16. -belly
17. -leg
18. -foot
19. -toes
20. -rump



## JUDGING

In selecting or judging meat rabbits, it is important to know what to look for and the comparative value of the important things.

**General appearance** is given 26 points out of 100 on a score card. The animal should be symmetrical, compact, thick, deep, with straight legs, firm boned and healthy.

**Head and neck** are given 8 points. The head should be broad, reasonably short, with ears erect. A thick, short neck blending smoothly with the shoulder is desirable.

**Forequarters** receive 12 points. Shoulders should be firmly covered, well

blended to back and compact, with a deep wide chest. Legs reasonably short, straight and wide apart are essential.

**The body** is given 25 points. The saddle and loin should be broad, smooth and evenly fleshed. A deep, wide chest with deep well sprung ribs, closely set, thickly and firmly fleshed is very desirable.

**Hindquarters** are given 20 points. A long, wide rump full to the tail and well-fleshed carrying down to thighs that are deep, thick and well-fleshed is important. Legs should be reasonably short and straight.

**Fur and skin** receive 9 points in meat rabbits. The fur should be long, dense, evenly distributed, fine, soft and of even length. It should be clean, bright and strong.

### *Acknowledgment*

The following publications were used in preparing this circular.

Farmers Bulletin 1730, Rabbit Production, U. S. Dept. of Agriculture  
Cornell Extension Bulletin 284, The Care of Rabbits, N. Y. State College of Agriculture

Circular 2396, Your 4-H Rabbit Project, Colorado A. & M. College  
Circular 137, Rabbits as a 4-H Project, Agr. Exten. Service, Univ. of  
Arizona

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UNIVERSITY OF MISSOURI COLLEGE OF AGRICULTURE AND THE UNITED STATES  
DEPARTMENT OF AGRICULTURE COOPERATING

J. W. Burch, Director, Agricultural Extension Service  
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## REPORT BLANK

(For use with 4-H Cir. 141--Rabbits--A 4-H Project)



Name of Member \_\_\_\_\_ Age \_\_\_\_\_  
Name of Club \_\_\_\_\_  
County \_\_\_\_\_ P.O. \_\_\_\_\_ R.F.D. \_\_\_\_\_  
Date Project Started \_\_\_\_\_ 19 \_\_\_\_\_  
Date Project Closed \_\_\_\_\_ 19 \_\_\_\_\_  
Breed Used \_\_\_\_\_

### Project Requirements

Size - One buck and two to ten does.

Time - Year around - continuous.

Equipment - A separate hutch for each breeding animal. Hutch should be 2 feet high and have approximately 7 1/2 square feet of floor space for small breeds, 10 square feet for medium breeds and 15 square feet for large breeds.





