



*Raising*  
**DOMESTIC RABBITS**

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**Cover picture: A New Zealand White doe and her healthy litter.**

(The cover picture and those appearing as Figs. 5 and 6 are from the Fish and Wildlife Service, U. S. Department of Agriculture. Credit is also extended Carl Krobath of Lexington, Kentucky, for cooperation in the preparation of other photographs used in this publication.)



# Raising Domestic Rabbits

By E. T. Wightman and E. E. Fish

A domestic rabbit enterprise may be developed into an interesting part-time hobby or a profitable commercial business. The meat is all-white meat, is fine grained, and very nutritious. As a part-time project, rabbits may provide a valuable addition to the home meat supply, as a supplement to higher-priced meats or as a means of adding variety to the diet.

Since relatively little space and equipment are needed, the enterprise may be attractive to those who have but limited time or space to devote to the project. Production costs are relatively low.

Domestic rabbits have proved to be commercially profitable in several sections of the United States. Large herds have been developed, cooperative marketing associations have been organized, and processing plants capable of handling large volumes have been established. Meat sales (fryer stage) usually account for the largest part of the income, while the fur is a by-product associated with the sale of meat. The Angora rabbit has been developed primarily for its wool. Specialized plants for processing and the sale of wool commercially have been established.

Rabbits may also serve as an interesting hobby for the fancier. The fancier has a wide choice of breeds and varieties. The American Rabbit and Cavy Breeders Association is a national organization of such breeders. It publishes a "Guide Book and Standard" in which more than 50 different breeds and varieties are described. Among these breeds the prospective grower will find a wide range of choice as to breed, type, size, color, as well as some novel physical characteristics.

Also, there is an increasing demand for rabbits to be used as laboratory stock in experimental work and for biological purposes in hospitals and pharmaceutical laboratories.

## **MAKING A START**

Too much emphasis cannot be placed on the importance of careful selection of the original stock. With good quality breed-

ing animals available, one cannot afford to start the rabbit enterprise with inferior stock. Too much time would be required to "breed up" to the same level of quality.

Usually it is best to purchase foundation breeding stock locally from a successful breeder who has demonstrated his ability to breed and raise good stock. He is likely to be more interested in your success, will give you better selection, and may be quite helpful with suggestions which will help to avoid difficulties.

One may purchase young does at weaning time and grow them out to maturity before breeding, or one may purchase matured does that have been bred. The advantage of the latter method is that one is not in doubt as to what the doe will be like at maturity and, also, she may be bred to a better buck than the beginner can afford to start with. This method also gets the enterprise under way in a shorter time, but of course matured stock will cost somewhat more. Usually it is best to start with a few animals and increase the size of the herd by retaining some of the most promising youngsters and growing them to maturity. Four or five does and one buck will make a satisfactory unit until some experience has been gained, after which the number can be increased.

## HOUSING AND EQUIPMENT

Housing should be simple in construction and inexpensive, yet it must be well built, sturdy and durable, if it is to give economical service. Each adult rabbit will require an individual hutch. Larger pens for growing stock can be utilized up until market time, but adult stock cannot be kept together in the same pen because they will fight.

The size of the hutch depends on the breed to be housed. In general, the hutch should be 2½-3 feet wide, 24 inches high, and the length varied according to the size of different breeds, allowing approximately 6 feet in length for the large breeds, such as Flemish; 4-5 feet for the medium breeds such as New Zealands or Californians and 3-3½ feet for the small breeds such as English or Dutch.

Hutches may be arranged in single tiers for small layouts, or where space is limited they may be built in two or three decks. Single tiers are simpler to construct but require more floor space.





Fig. 1.— Hutches arranged in tiers in a permanent-type building. These hutches are raised from the floor for ease in cleaning and to promote sanitation.

Triple tiers are more economical to build, but the upper and lower levels are more difficult to observe and to service.

Hutches may be placed in a barn or other permanent building or may be placed outside. Rabbits in outside hutches will need more protection. At least three sides of the hutch should be built solid to avoid drafts. Panels which can be opened or removed will provide better ventilation in hot weather, but they must be so constructed that they can be easily replaced and will fit snugly to prevent drafts in bad weather.

For commercial layouts, several rows of hutches in double decks or tiers may be enclosed within an open shelter with a solid back and roof over all the hutches. Such a shelter adds to the expense, but it will be appreciated when one is caring for his rabbits in bad weather, and it may be the reason for their receiving better care at such times.

Hutches may be constructed of wooden frames covered with wire netting or may be made entirely of wire if they are inside and have sufficient protection. Rabbits are members of the rodent family and will gnaw and destroy wood whenever they can reach it. For this reason when wooden construction is used, it is best to build square corners and to cover the wooden framework by placing all wire netting on the inside of the frame.

Hutches should be rat proof and so constructed that cats and dogs cannot annoy the rabbits or open the doors. For large operations a heavy wire fence enclosing the entire rabbitry will be good insurance. Rabbits should not be exposed to too much direct sunshine. Build hutches so that the animals can avoid direct sunlight on warm days.

Solid floors are draft proof and some growers prefer solid floors in all hutches, because of a belief that such floors reduce the amount of sore hocks. On the other hand, an open or self-cleaning floor using wire or wooden slats or a section of open floor in about one half of the hutch will allow manure and urine to drop through the floor. This keeps the floor cleaner and reduces the cleaning job. Where hutches are double decked, a solid pan or a platform sloped to the rear should be provided beneath an open floor to protect the hutches underneath. Such open floors may be made of wooden slats, using 1" to 1½" hardwood slats, spaced ⅝" apart; or ⅝"-mesh hardware cloth may



be used. This platform may be made of metal or wood. Some of the asbestos composition boards provide a hard smooth surface and apparently outlast metal. A perforated metal sheet is more expensive but provides a smoother surface, which may help to prevent injury to the foot and sore hocks.

Hay racks may be constructed in a V-shaped form between each two hutches, or individual racks may be constructed at the end of the hutch or in the door. In any case all racks must be substantially built, well anchored and protected from gnawing. A trough built under the hay rack provides a convenient place for feeding grain. However, earthenware crocks may be used for grain as well as water. These are portable and easy to handle.

A nest box should be provided for each breeding doe about 6 or 7 days before she is due to kindle. Nest boxes should be approximately 12" x 12" x 24" with an opening 6" x 6" in one end. These may be made from apple boxes or similar salvaged material. If the entire top is made removable, one can easily open the box to observe any of the young in the nest without disturbing the entire nest. The box top also provides a place for the doe to get away from her young when she wishes. Some breeders prefer to leave the top off entirely.

Nail kegs make suitable nests for the young. A narrow strip nailed on the lower front will keep the litter from falling out. The keg should be fastened so it will not roll. Open-top nests are becoming popular, especially in areas where there is less danger of chilling.

### **CHOICE OF BREED AND OBJECTIVES**

The choice of a breed with which to start a rabbit enterprise will depend somewhat on personal preference, but should be governed largely by the purpose or objective one has in raising rabbits. There are many good breeds of rabbits, each having some special characteristics that make it suited for some particular purpose. For instance, growers interested in the production of fryers will be concerned with such characteristics as rapid growth, early maturity, medium-weight carcass with good fleshing, good conformation, and low mortality. New Zealand Whites, New Zealand Reds and Californians are breeds well suited for

this purpose. They reach 3½ to 4 pounds at weaning time and mature at from 9 to 11 pounds. Flemish Giants and Heavyweight Chinchillas do not mature quite so rapidly, but attain slightly heavier weights.

A great majority of the rabbit skins used in the fur industry come as a by-product from the "meat breeds" mentioned above. Rabbit skins are used more extensively by the fur trade than any other kind of fur. The best grades when properly processed are used as substitutes for many of the more expensive skins such as ermine, seal or beaver. Other skins are used as linings for gloves and in the manufacture of felt hats.

Chinchilla rabbits have fur which resembles that of the wild Chinchilla and have been bred particularly for their fur. The Heavyweight and Giant Chinchilla are larger and furnish a better meat carcass in addition to the fur.

The "Rex" fur is an interesting variation from the normal fur. It is found in several varieties. Rex fur differs from normal fur in that the guard hairs are absent and the undercoat is short, dense and soft. This fur condition is a simple recessive characteristic and as such may be bred into any breed or color by cross breeding and selection. Several breeds, including New Zealand and Flemish, have been produced with Rex fur.

While both the Chinchilla and the Rex have been bred primarily for their fur, the number of such skins produced has not been large and the market outlet is limited. In other words, the bulk of the rabbit skins used by the fur industry is produced as a by-product of meat production.

The Angora rabbit produces a wool that may reach 6 to 8 inches in length within a year. Each rabbit may be sheared four or five times a year and a total annual yield of 12 to 14 ounces of wool may be obtained from each animal. Angora rabbits are maintained primarily for shearing, but they also produce a suitable carcass for meat production.

Smaller breeds, such as the Dutch, Himalayan and English, are bred primarily for show purposes or for pets.

A more complete description of these and other breeds may be found in the Guide Book and Standard published by the American Rabbit and Cavy Breeders Association.

Several breeds may be used for the production of laboratory



stock. However, laboratory requirements vary somewhat in regard to size, weight, age and sex. The prospective grower should investigate carefully the requirements or demands for special qualities before selecting a breed for the production of laboratory stock.

With increased skill and proficiency in growing rabbits, which come only through experience, a grower may find it more interesting to produce and sell breeding stock for foundation herds to other growers. This work requires more careful attention to all kinds of breeding records, and also some time is necessary for one to acquire a reputation as a successful breeder. However, such breeding stock should bring higher prices as a compensation for the increased labor and costs.

### **IMPROVEMENT OF BREEDING STOCK**

Improvement in breeding stock can be attained only through very rigid selection and testing of breeding stock and the constant culling of all animals that do not measure up to individual standards or that fail to reproduce desirable characteristics in their progeny. Culling should be a continuous process. Eliminate does that are difficult to breed; those that have small litters or undesirable young, or which have litters that show high mortality. Some does are poor milkers and so their young do not grow rapidly.

In a meat project the breeding ability of each doe and buck should be tested by observing their progeny for such characteristics as number of young to reach marketable age, average size, weight, conformation, and fleshing or the total pounds of meat produced at a given age.

Prospective breeders should be selected from litters which rate high in these characteristics; parents which do not produce desirable litters should be marketed.

### **FEEDING**

A good feeding program is essential for the maintenance of health and the production of maximum growth in the shortest time. The basic diet for rabbits consists of a good legume hay plus whole grain. For rapid growth, the addition of a protein

supplement is necessary. Salt, green food and water should also be included.

Hay for rabbits should be leafy, green, and fine stemmed. Coarse hays are higher in fiber and are not so palatable. Only the leafy fine stems are eaten and too many of the coarse stems are wasted. Good quality alfalfa, clover, and lespedeza are best suited for rabbits. Of the whole grains, oats, wheat, and barley are all palatable and about equal in feeding value. Feeding whole corn results in considerable loss because the rabbits will eat the germ and waste too much of the remainder of the kernel. Grinding grain does not seem to improve the feeding value and adds to the expense. Since the nutritive value of all grains is quite similar, the choice of grains to use will depend largely on the relative cost and availability.

To promote the most rapid gains in young stock, some additional protein supplement must be added to the hay-grain diet. Soybean oil meal, peanut meal, and linseed oil meal are good sources of protein. When protein supplements are mixed with grain, the grain should be ground and mixed with the supplement to prevent the rabbits from sorting over and picking out certain particles. Some growers prefer to moisten this mash slightly at feeding time. Rabbits on mash feeding may inhale fine particles of the mash or dust which may be a cause of "mechanical snuffles."

Commercial feeds in the form of pellets are available through most of the feed companies. Two kinds of pellets are available, one designed to be fed with good quality hay, the other being a complete food which includes the hay together with all necessary ingredients. Provided good quality alfalfa hay is available, it may be cheaper to feed hay and pellets; however, if the quality is questionable, it is better to feed the complete food pellet rather than use low-quality hay. In any case one should be careful to use the right kind of pellet. When feeding hay use the combination pellet. Do not feed hay in addition to a complete pellet, because the hay has already been included.

Green food is a natural food for rabbits and can be used as part of the diet. Green plants are satisfactory, such as lawn clippings, rape, vegetable waste, beet or chard leaves, alfalfa and clover. All green food should be cut when green and succulent



and after the dew is off. Some growers prefer to wilt green food over night before feeding. Green food should be given in small quantities such as what they will clean up in 10-15 minutes and any remaining should be removed before it becomes soiled. Rabbits that have not been fed green food should be started with a small amount at first and the amount increased gradually as they become accustomed to it. Too much green food may cause diarrhea.

A spool of salt and also fresh clean water in clean containers, should be available at all times. Avoid any spoiled or moldy feed.

### MANAGEMENT

Mature rabbits cannot be kept together successfully because they will fight. Each doe and each buck must be kept in an individual hutch.

Young does usually reach maturity and are ready for breeding when 7-8 months old. However, size, development and fleshing are more important factors than actual age and a young doe should not be bred until she has developed a good frame and is in good flesh.

For mating it is best to take the doe to the buck. Occasionally the buck may be timid or slow in strange quarters. If the doe is in heat the mating will usually occur immediately. Should

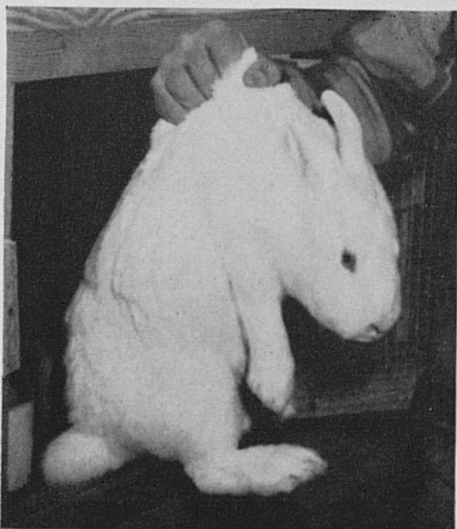


Fig. 2.— The proper way to remove a rabbit from the hutch.



Fig. 3.— The proper way to carry a rabbit.

the doe refuse the buck and fight him off she should be removed and returned to the buck on succeeding days until mating occurs. It is never advisable to leave the doe with the buck. Some breeders like to use a test mating about 18 days after breeding. This is accomplished by returning the doe to the buck. If pregnant the doe will usually refuse the buck, but if not pregnant mating will occur. Though this is not always an accurate test for pregnancy the procedure will often save 10 or 12 days' delay in the kindling date.

An accurate record of all matings will avoid disappointments and confusion. The gestation period is 30-31 days.

Six or seven days before the doe is due to kindle, the nest box should be placed in the hutch together with some good clean straw. The doe will build her own nest and line it with fur pulled from her body. She will not need any special attention and should be kept quiet. A sudden noise or disturbance may cause her to stampede, usually into her nest to hide, and she may trample her young.

The young are born blind and hairless. The number will vary from 1 or 2 up to 10 or 12, with the average being 6 or 7. It is best to examine the nest carefully the day after the young are born, to count the litter and to remove any dead, weak or crippled offspring.

The average doe will not be able to care for more than six or seven young and nurse them properly. If other does are bred to kindle at the same time, it may be possible to distribute the young among two or more does or when the litter is especially large it may be best to destroy the excess number.

The young begin to come out of the nest when about 2 weeks old and may remain with the doe for 6-8 weeks, at which time they are usually ready for market. Some growers like to leave the young in the same hutch with the doe until marketed. Others prefer to separate the young earlier and keep them in growing pens until ready for market. Young animals being held for replacement breeding stock do very well in these large pens and may be kept in groups of four or five until they start to fight or annoy each other. Then they should be placed in individual hutches. Occasionally young growing does may be kept together until breeding time, but the bucks must be separated much earlier.





Fig. 4.— The proper method of handling a young rabbit.

If she is in good flesh, the mother doe may be bred again when the young are weaned; otherwise, she should have a rest period of 2 to 3 weeks for recuperating. Based on this schedule, a doe may be bred four times a year and will produce four good litters. By breeding does soon after they kindle, it is possible to get five or more litters, but such a practice does not allow the doe time enough to regain her strength. Unless the doe is an exceptional individual and can maintain good flesh, it is much better to breed her less often and allow more time for her to build up body weight between litters.

Sterility is not common in rabbits, but occasionally a doe is found which is difficult to breed. This may be due to excessive fat, nervousness or a diseased condition of the ovary. Such does should be replaced as soon as they are discovered.

With good management a strong healthy doe should produce four good litters for two or more years. However, as they become older they become less efficient than younger does and should be replaced by the best of the younger does saved from the most promising litters.

Rabbits should never be carried by the ears. Young stock may be grasped over the hips with the palm of the hand flat on the back and the fingers over the side of the body just in front of the thigh. Older animals or breeding stock need more support. With the left hand get a firm grip on the loose skin over the shoulder and then place the right hand and forearm over the body and under the hind legs allowing the weight of the body to rest on the hind legs.

## KILLING AND DRESSING

First stun the animal by means of a sharp blow with a short, stout stick or piece of pipe, striking the head just in front of the ears. Next hang the animal by the hind legs on nails or hooks

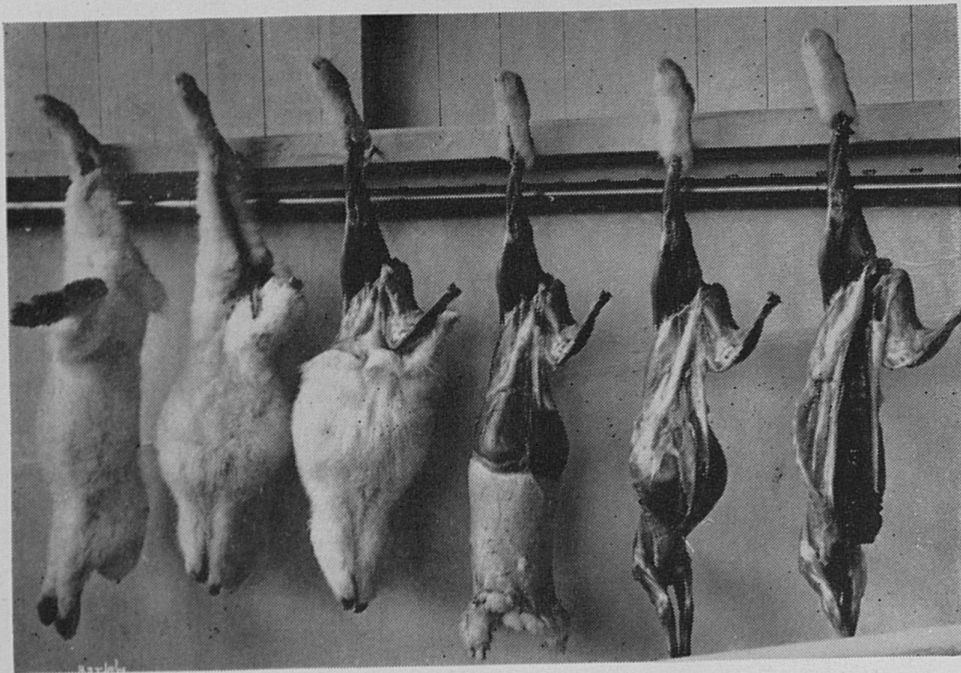


Fig. 5. (left to right) Steps in slaughtering and dressing rabbits.

arranged at convenient height, and slit the jugular vein in the throat to permit good bleeding. Then cut through the neck to remove the head. With the carcass still suspended and the hind legs separated about 10 inches apart, slit the skin down the inside of each thigh and completely around the hock joint. Trim around the anus and tail, and then peel the hide down over the entire body, using a sharp knife to trim off the fat, leaving as much fat as possible on the carcass and keeping the hide free (from fat). Place the hide over a wire stretcher and hang in a dry place until completely dried out. No curing of any kind is necessary. The stretcher can be made easily from a piece of No. 9 galvanized wire, about 4 feet long. When bent in the middle to approximately a V-shape, it will have sufficient tension to stretch the hide and hold it flat until dry. Pelts thus handled are called "cased."



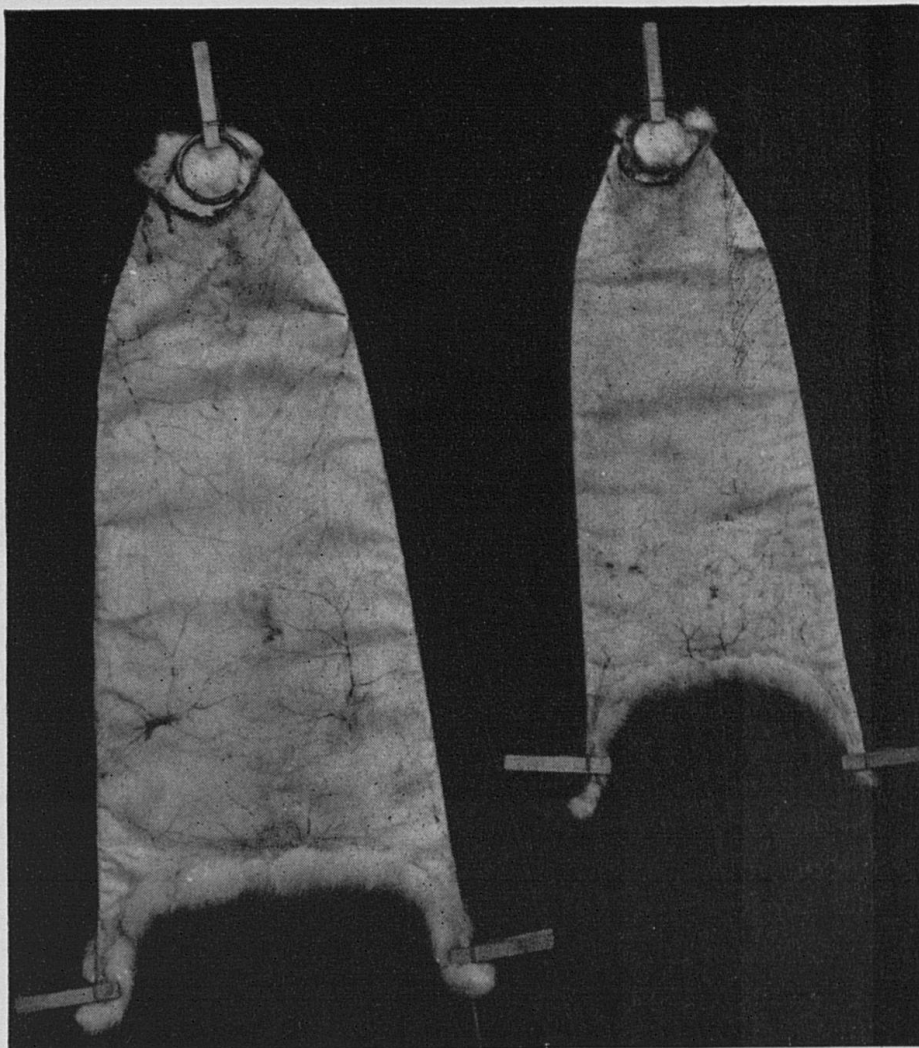


Fig. 6.— The proper way to place a rabbit pelt on a shaper or stretch.

After the pelt has been removed and placed on the stretcher, split the carcass down the abdomen, starting first at the tail and cutting around the anal opening and through the pelvic bones. Then press the hind legs apart to provide easier access. Continue to slit down the median line of the abdomen and remove the intestines, stomach and lungs.

Fryer rabbits are usually cut up into pieces, which are packaged before being sold. Usually the fore and hind legs are cut separately and the remaining carcass cut into two or three parts. The heart and liver should be wrapped separately.

## MARKETING

Meat rabbits are usually marketed as fryers when about 8 weeks of age at which time they should weigh  $3\frac{1}{2}$ - $4\frac{1}{2}$  pounds. There is some demand for larger carcasses weighing around 6 pounds. This requires an additional growing period of 7 or 8 weeks. Older animals may be marketed as heavy roasters at any time after they have served their usefulness as breeders. A great many of the rabbits produced from small units are consumed by the family.

Many rabbit enterprises are established as a project for home use and as such have been very efficient in the production of meat for the family. As the volume increases, other markets must be found. The operator of a small project will usually find it best to market his surplus locally at retail and probably will find it profitable to dress them rather than to sell at live weight. He may also be able to establish outlets through hotels, restaurants, stores and meat counters. Such outlets may or may not require dressed carcasses and have proved rather profitable where a steady supply is available. The chief limiting factor to such a marketing system is a regular uniform supply of sufficient volume. In areas where sufficient volume has been developed, processing plants with pick-up truck service have been established.

Rabbit skins are marketed as a by-product of meat production. For those who kill and dress their own animals there is a market for the skins. The skin should be removed from the carcass carefully to prevent cuts or tears and to remove all fat. It should then be stretched over a loop of heavy wire and allowed to dry in a cool dry place. When a sufficient number have accumulated, they may be tied in bundles and shipped to wholesale buyers or jobbers who buy in small lots and assemble hides for the wholesale trade.

White skins usually bring the best price. Chinchilla and rex hides are highly valued; however, the small number produced makes it difficult to establish a market for them.

## DISEASES

Rabbits are subject to a number of diseases which, if not controlled, may lead to lower production or high mortality. Pre-



vention is by far the best cure for any disease. A healthy rabbit will be active, will have a bright eye, alert erect ears, and a smooth coat, and its droppings will be round and hard. One should observe his rabbits daily to note any signs of ill health.

Proper management and feeding will prevent many diseases and avoid the losses associated with high mortality. Keep the hutches clean and provide feed containers that can be maintained in a sanitary condition. Water containers should be cleaned daily and removed and disinfected at least once a week. Renew the litter often enough to keep the hutch clean and dry. A wire floor is more sanitary and will require less frequent cleaning.

### **"Snuffles"**

"Snuffles" is a disease or perhaps a symptom which may cause considerable damage. The name is often associated with any of the symptoms observed in common colds. However, "snuffles" is not the same as a common cold. The first symptoms are a thin watery discharge from the nostrils. Snuffling, sneezing and coughing are usually present. In later stages the discharge becomes thicker and as the rabbit attempts to clean its nose with its front paws the fur becomes dirty and matted. The animal loses flesh, the fur loses its gloss, and a general unthrifty condition develops. Actual losses by death may not be great unless the disease is accompanied by other diseases such as pneumonia, but any "sneezing" should be viewed with suspicion and steps should be taken to locate the cause. Aside from the danger of spreading infection, any sneezing in the rabbitry has the effect of scaring away any prospective buyers.

### **Coccidiosis**

Coccidiosis is caused by a protozoan which locates in the intestinal tract. Symptoms are poor appetite, loss of energy, a dull coat, listless eye and loss of weight. There may be heavy mortality which is usually most severe in young animals between 6 and 8 weeks of age.

Part of the life cycle of the organism is spent in the intestine and another part in the manure or litter outside the animal's body. During this period outside the animal's body, the organism

to become infective must have approximately three or four days of proper conditions of moisture and temperature. This suggests an effective control measure. If the hutches are cleaned regularly and kept dry it is possible to remove most of the organisms before they develop into the infective stage and get back into the animal.

### **"Sore Hocks"**

"Sore hocks" is more common in heavyweight animals probably because of the extra pressure when stamping the feet. It is often associated with unsanitary conditions and wet litter in contact with the feet. This causes an irritation which easily becomes infected and sore. The sores may be treated with disinfectant and a good healing salve and bandaged if necessary. Hutches should be kept as dry and clean as possible. Unless the animal is a valuable breeder, it would be well to dispose of it to avoid treatment and to take precaution to avoid future cases.

### **Mucoidenteritis**

Mucoidenteritis (also called bloat disease, scours, or diarrhea) is a digestive disorder not caused by any specific organism. It is usually more severe in young animals, 5 to 8 weeks old, but may occur at any age. Symptoms include loss of appetite, intense thirst, distended or bloated abdomen, either diarrhea or constipation, and a mucous condition of the droppings. There may be internal pain, causing the animal to grind its teeth. Remove feed and water for 24 hours and then feed small amounts of green food and gradually bring the animal back to full feed over a period of a week or 10 days, being careful not to over feed; also do not allow the animal to drink too much water. Recently the U. S. Rabbit Experiment Station has found some benefit from feeding aureomycin and B<sub>12</sub>. A supplement was fed, containing 2 grams of aureomycin and 1.8 mg. of vitamin B<sub>12</sub> per pound. This supplement was incorporated in a pelleted ration at rates of 5 and 10 pounds per ton of feed. The results indicate that this mixture eliminated about three-fourths of the losses from mucoidenteritis.

### **Ear Canker**

Ear canker is caused by a mange mite which burrows into the lining of the ear, forming a brown crust over itself as it digs



deeper. If the mite is permitted to reach the inner ear, the resulting infection may cause the death of the animal. Symptoms include twisting and shaking of the head or possibly a wry neck. The crust or scab should be removed with a slender blunt stick or swab and the spot treated with a mild antiseptic, such as mercurochrome or a mixture of 20 parts olive oil and 2 parts sulfur or cresol, mixed to a creamy thickness.

### **Cannibalism**

A form of cannibalism in which the doe will kill and eat her young is found occasionally. This condition is found most frequently in young does that are bred too young or before they are physically developed. It may also be due to nervousness caused by disturbances, an unbalanced diet, thirst, or an overly fat condition. There seems to be no cure and it is best to dispose of the doe if the trouble recurs.

### **COSTS AND RETURNS**

Housing costs vary considerably from very little or nothing where scrap materials and home labor are available to \$20 or \$30 per animal in commercial rabbitries where materials must be purchased at market prices and the cost of labor is high.

Feed costs also vary, depending quite largely on the feeding program and the price and availability of feed ingredients in the local community.

Some growers are able to cut feed costs by the use of home grown hay or grains or by local purchases at harvest time. However, this may be a false economy, if satisfactory storage facilities are not available.

Daily feed consumption depends on the age and weight of the doe, the number of young she may be nursing, and the method of feeding. A 10-pound doe that is not bred will need from 4 to 7 ounces per day when fed complete pellets and no hay. The same doe with a litter of seven will need from 1 pound up to about 3-3 $\frac{1}{2}$  pounds daily before the young are weaned. If a hay of good quality is fed, the foregoing amounts of concentrates may be reduced by about one half or slightly more.

Unless one is selling breeding stock, the principal source of income is from the sale of meat either as fryers or roasters. A

good doe may produce four good litters per year. An average of seven young, weighing 3-4 pounds each at weaning, would make it possible to produce up to 25-28 pounds of meat per doe. In some cases it may be desirable to hold market animals until they reach a 6-pound average weight before marketing.

With a small enterprise the grower may find it profitable to do his own dressing and develop a retail outlet of his own as a means of increasing his income. Before expanding too much he should thoroughly investigate the markets available and determine just what volume can be marketed successfully.

Hides are only a by-product from the sale of meat. Usually there is a market for any volume of hides, but sometimes the price received is very low.

Rabbit manure is a valuable by-product and may be marketed through vegetable and flower growers any time it cannot be used on the premises to better advantage.

Prices, costs, returns are not given here because such figures for one farm may not mean much in another locality or under different conditions. Rather, it is suggested that the prospective grower investigate prices and demands in his own community before expanding his enterprise.

## SHOWING

An entry in a local or state show is a wonderful means of learning more about the breed characteristics as well as the methods of selection and mating. There is always something to be learned from a discussion of one's problems with others in the same business.

In preparation for showing, one should first become familiar with the rules and regulations of the show. Also the rabbits will need a little extra attention to get them in the best condition for showing. If possible, one should know the date of the show well in advance so that he will have ample time for getting ready.

First, one should study the classification and decide which classes to enter or for which classes his available animals are qualified.

Usually a show provides separate classes for bucks and does, and further subdivides these into classes for seniors (over 6 months old) and juniors (under 6 months old). For some breeds



an intermediate class is set up to include rabbits between 6 and 8 months old in which case the senior class would include those over 8 months. For New Zealand the usual classification is for seniors to be over 7 months, intermediates 5 to 7 months, and juniors under 5 months. Obviously, it is desirable to have young animals born at such a time that they will be near the upper age limit at time of showing. In addition to the "open classes" which are open to everyone, there are often some classes limited to 4-H, Future Farmer, Boy Scouts, or other youth groups. Other classes may be limited to residents of the county or state or to members of certain associations.

In order to select the best animals for showing one should be familiar with the "Standard" for the particular breed or the special requirements set up for any class. A "Standard" for all common breeds is published by the American Rabbit and Cavy Breeders Association.

Primarily the judges will be looking for such characteristics as vitality, health, fleshing and condition of fur, in addition to type or shape, color markings, and freedom from disqualifications. A disqualification is a defect which is considered serious enough to debar an animal from competition. Some of the more common disqualifications are ear canker, lopped ears, crooked legs, and crooked tails.

Ordinarily a rabbit will not need much "fixing" for the show. If given a clean hutch they will keep themselves in good condition. However, they should be carefully examined some time before the show so that there will be plenty of time for correcting any minor defects. Any soiled or matted hair should be removed from the feet or belly by thorough brushing, or washing if necessary. Daily brushing will improve the appearance of the fur by eliminating any faded or dead hairs and will also add to the gloss. Rabbits that are molting badly should not be shown. Watch carefully for signs of ear canker and eradicate it before show time or leave the animal at home. Keep show animals in a clean hutch. Clean the hutch and handle each one daily until show time.

A little training before the show will be quite helpful. Remember the rabbit will be in a strange environment and will be subjected to many new conditions at the show. If the rabbit

knows what to expect, because of past experience, it will be less nervous and excitable and will then be more easily managed and handled on the judging table. This always creates a favorable impression in the mind of the judge. Handle your rabbit on a table, and inspect each section, just as the judge will do, until it becomes accustomed to being handled and knows what to expect. Good grooming and handling pays off in the number of prizes won.