

# Rabbit Show



Sponsored by: Cape Fear Area Rabbit 4-H Club & New Hanover County 4-H  
& Cape Fear Fair & Expo

**SKILLATHON:** Participants will rotate through stations designed to test rabbit care knowledge, each with a facilitator to prompt discussion, ask questions and facilitate the learning experience. Stations: Breed Identification & Traits, Anatomy, Diseases and Parliamentary Procedure.

**SHOWMANSHIP:** Participants will show their rabbit (or cavy) to a judge. The participant's confidence, ability and rabbit's response are indicators of the knowledge and skills gained in handling and identifying quality animals, as well as defects, disqualifications and breed characteristics.

**RESOURCES:** Download the 2018 study guide at [www.newhanover.ces.ncsu.edu](http://www.newhanover.ces.ncsu.edu)  
Click on 4-H Youth Development, then Rabbit Project Resources.

**LOCATION:** Cape Fear Fair & Expo, 1739 Hewlett Dr, Wilmington, NC 28403

**DATE/TIME:** Saturday, November 3rd, 2018  
Skillathon begins at 9:00 am. Showmanship begins at 12:00 pm.

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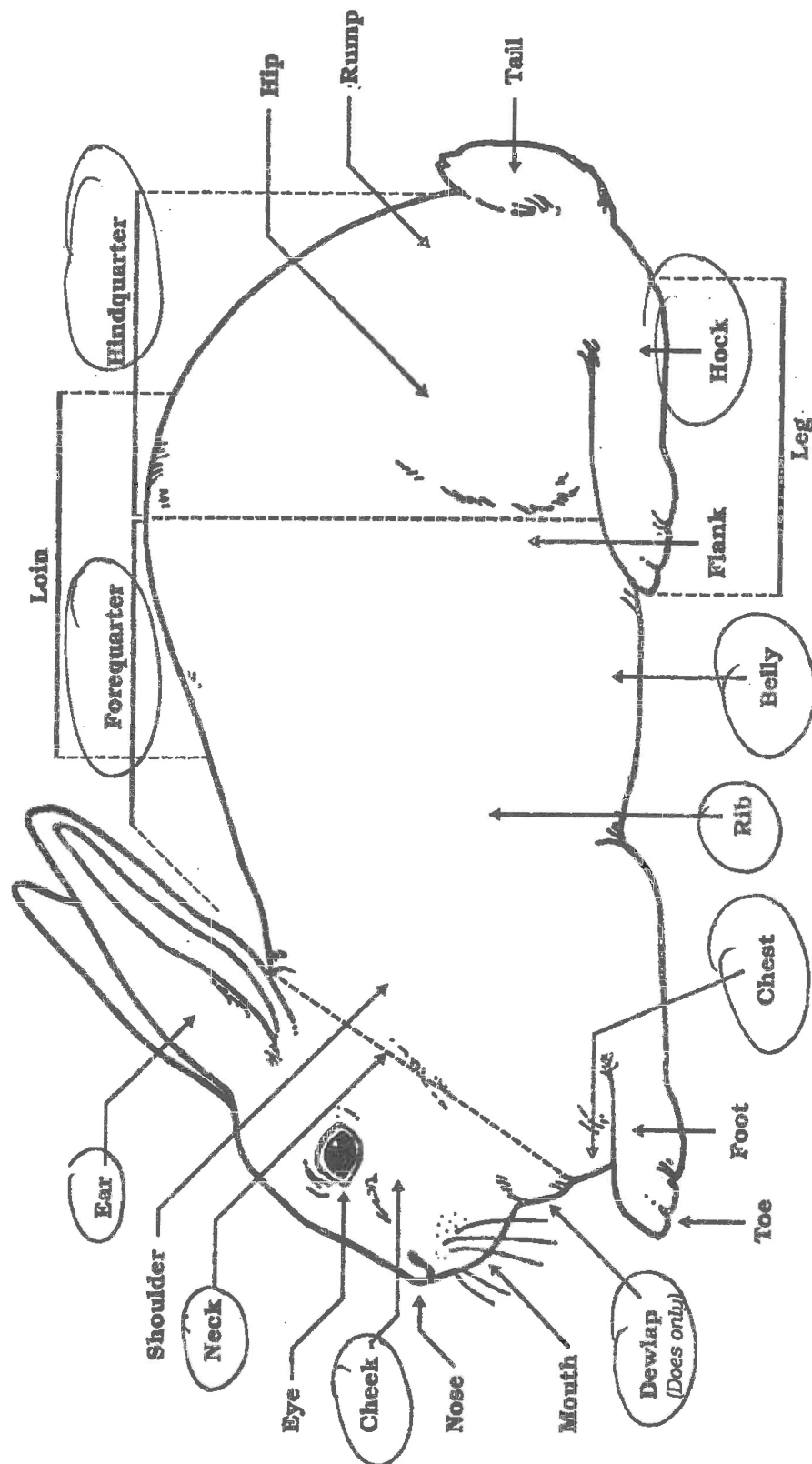
# **Rabbit Anatomy**

Please be prepared to identify the 10 body parts on this list.

1. Ear
2. Neck
3. Cheek
4. Chest
5. Rib
6. Belly
7. Forequarter
8. Hindquarter
9. Dewlap
10. Hock

Use this poster in conjunction with Anatomy - Match the names to the correct parts of the rabbit situation/task statement and/or Parts of a Rabbit identification tags.

# Parts of a Rabbit



**Exploratory Learning: Educational Program**

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## **Junior/Senior Division**

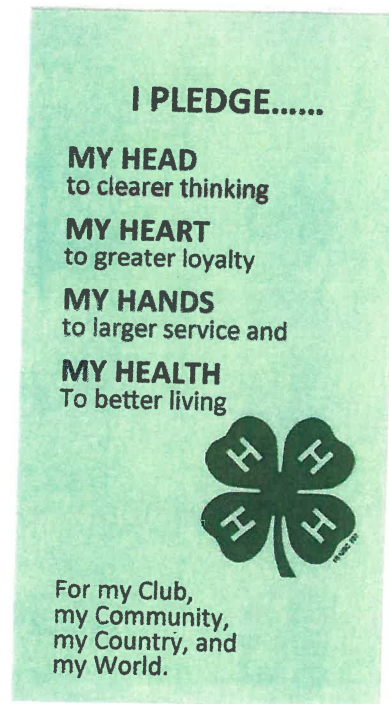
### **Parliamentary Procedure**

- 1. Who calls a meeting to order?**
- 2. Who calls the roll?**
- 3. What happens if a motion does not receive a second?**

# Parliamentary Procedure

## Cloverbud Division

1. What is the 4-H Pledge?
2. What do the 4-H's stand for?



## **Cloverbud Division**

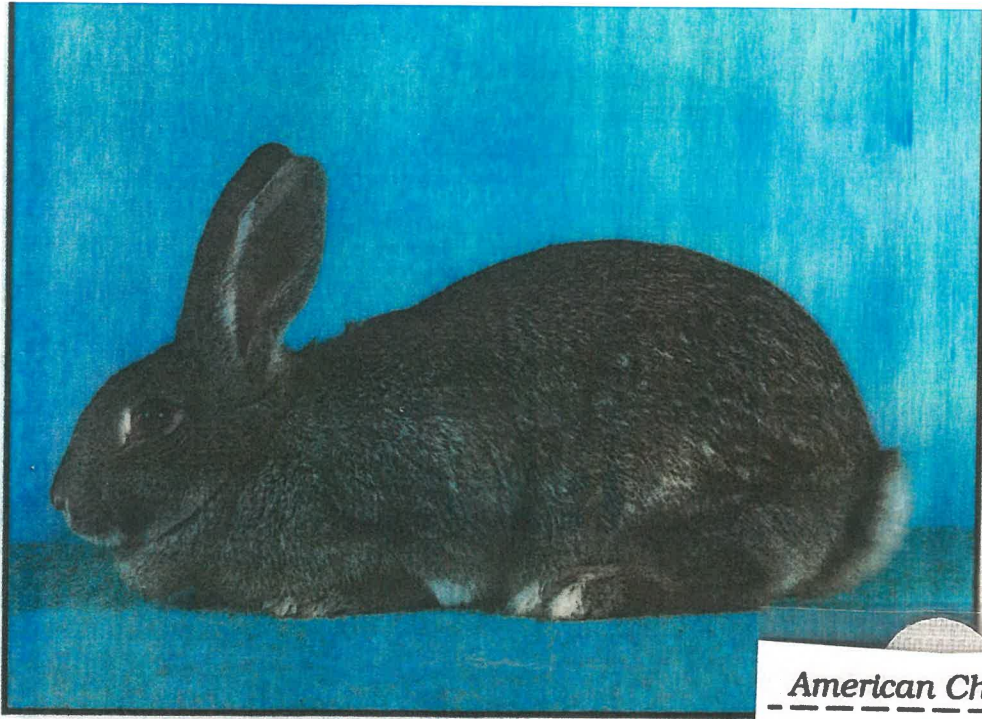
### **Breed Identification**

1. American Chinchilla
2. Dutch
3. English Lop
4. Flemish Giant
5. Giant Angora
6. Himalayan

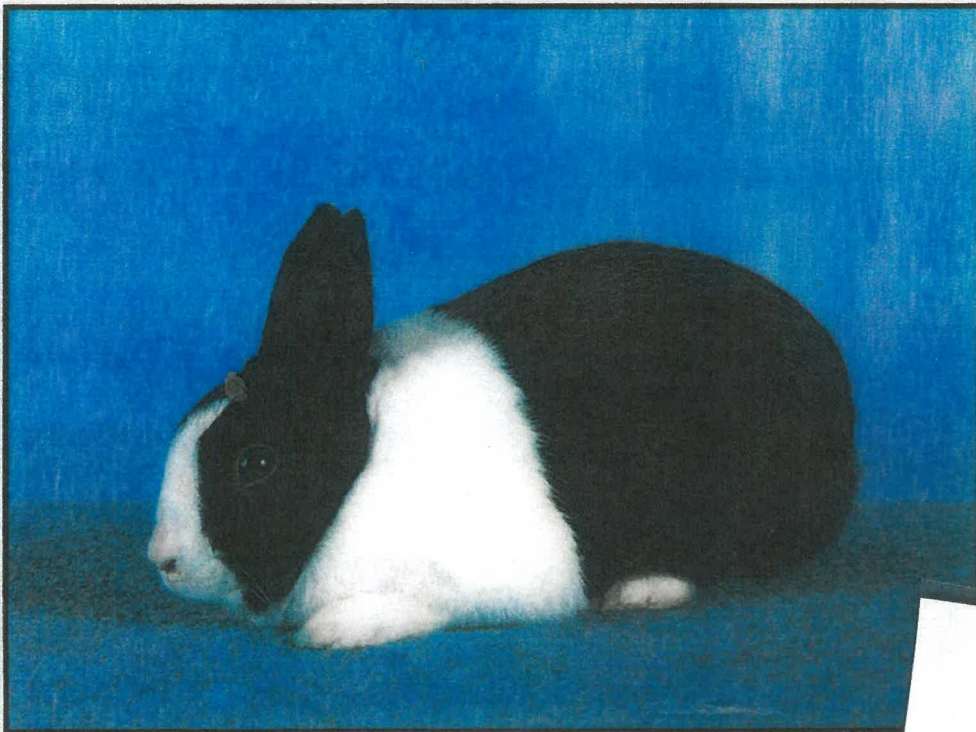
## **Junior/Senior Division**

### **Breed Identification**

1. Californian
2. Dutch
3. English Lop
4. Flemish Giant
5. Giant Angora
6. Harlequin
7. Himalayan
8. Hotot
9. Mini Rex
10. Netherland Dwarf



*American Chinchilla*



*Dutch*





English Lop

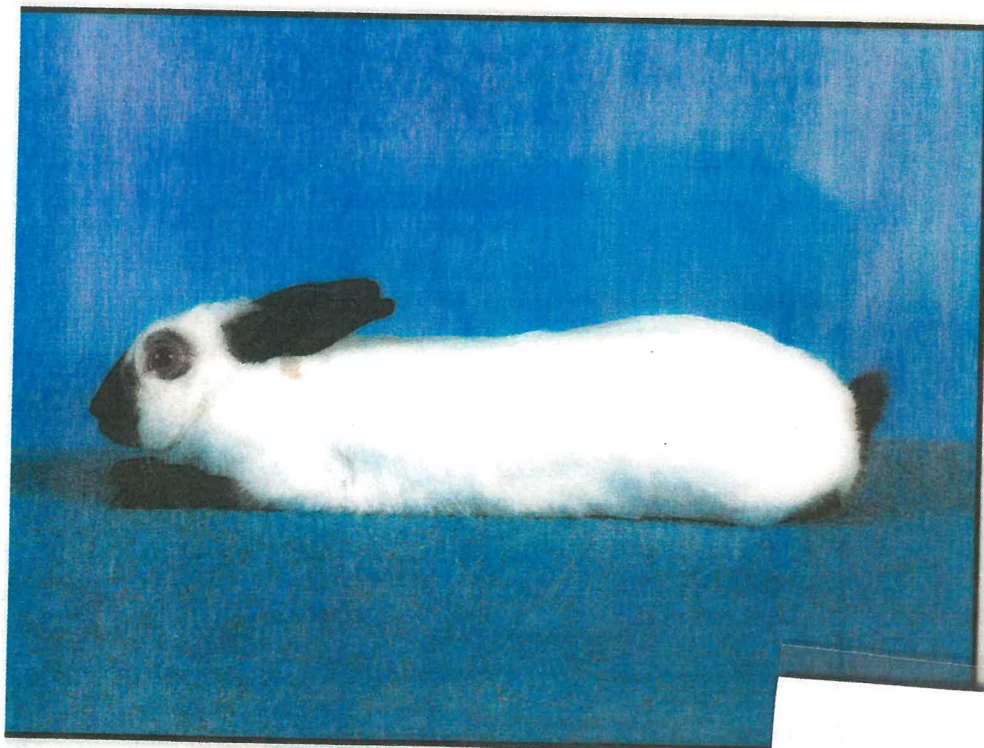


Flemish Giant





*Giant Angora*



*Himalayan*





*Hotot*

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This large breed has a commercial type profile.

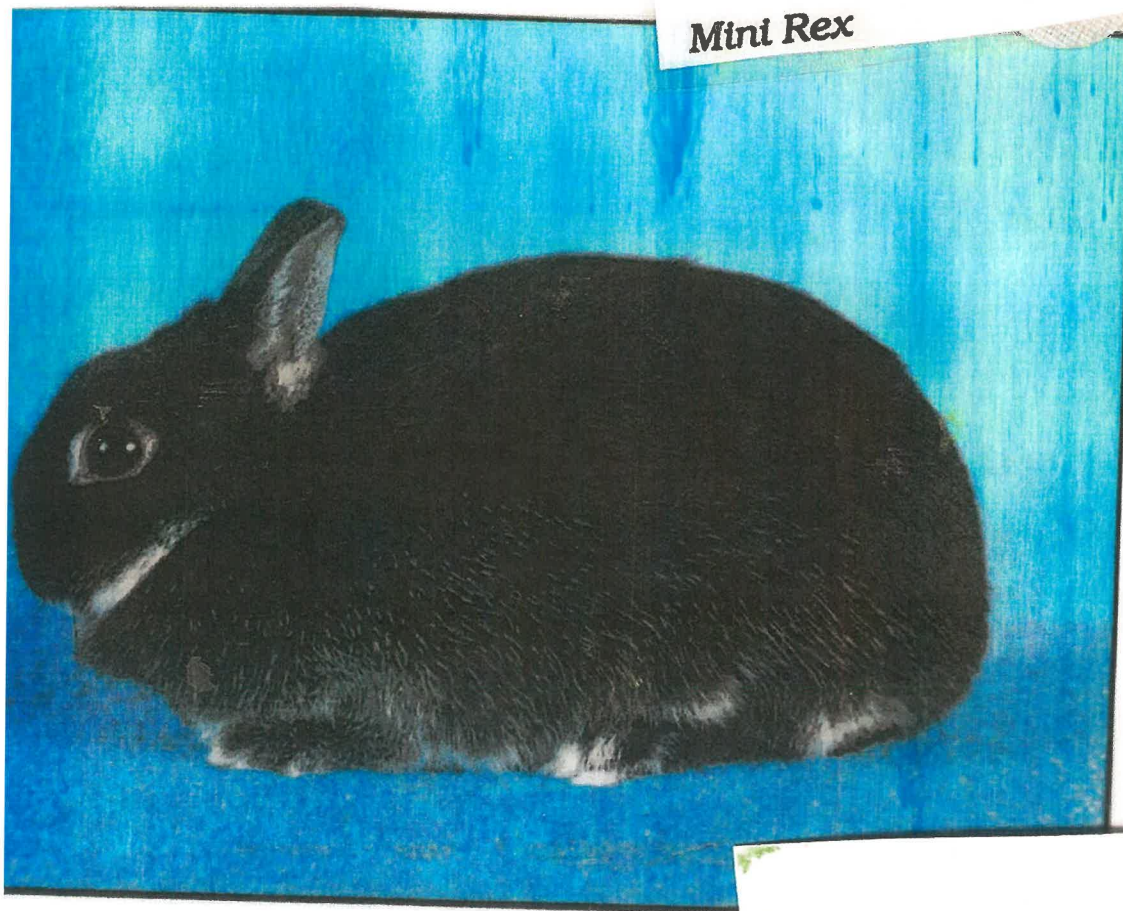


*Californian*





Mini Rex

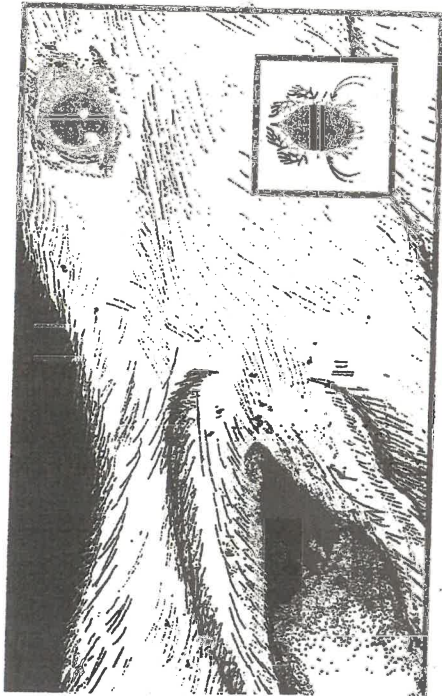


Netherland Dwarf

## **Junior/Senior Division**

### **Ailments & Disorders**

- 1. Ear Canker**
- 2. Sore Hocks**
- 3. Malocclusion**
- 4. Coccidiosis**



### Ear Canker (Acartasis)

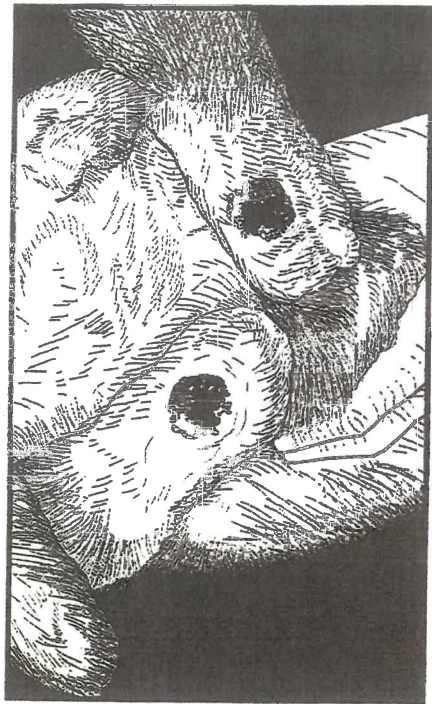
**Common Treatment**  
**Mineral -or- Vegetable Oil**  
 Treat (smother) with oil-based insecticide preparation  
 Clean off exudate and massage 1 to 2 ml of liquid into each ear canal with a cotton swab  
 Repeat treatment in 7 days to eliminate newly hatched mites  
 -or- Treat with injectable Ivermectin

### Ear mites

*Psoroptes cuniculi*  
 and/or  
*Choriotopes cuniculi*

Transmitted from infected animals or environment to noninfected rabbits

- ★ Carefully examine the ears of all stock every 14 days
- ★ Quarantine all new arrivals and treat twice before placing in clean herd/colony



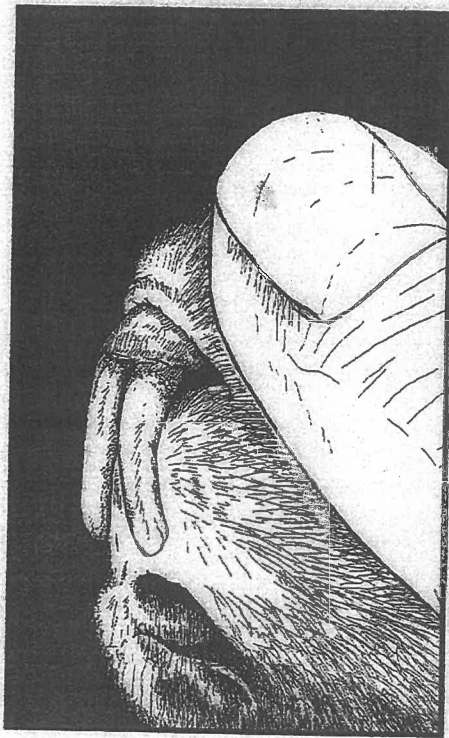
### Sore Hocks (Ulcerative Pododermatitis)

- ★ House rabbits in clean cages on soft, clean, dry bedding
- ★ Eliminate environmentally stressful conditions
- ★ Use resting boards
- ★ Cull affected animals and do not use for breeding

**Common treatment:**  
**Preparation H**  
 ● Clean sores/lesions, trim toenails, and apply topical antiseptic or protective covering  
 ● Healing is often prolonged/complicated by secondary bacterial infections

Damage initially to the pad of the foot, usually followed by a bacterial infection

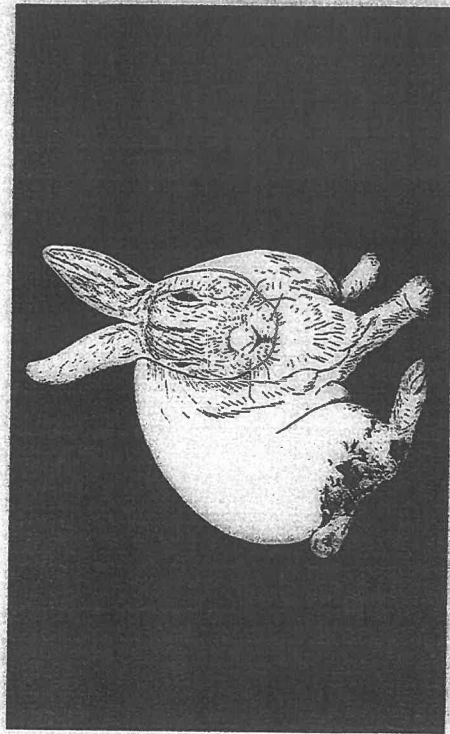




### **Malocclusion** (Mandibular Prognathism)

- Treatment of tooth overgrowth involves repeated filing or sawing with a sharp clipper or dental burr
- Removal of affected teeth

★ Do not allow animals affected with this ailment/disorder to reproduce



### **Coccidiosis** (Intestinal Coccidiosis)

- ★ Employ strict sanitation and husbandry standards
- ★ Cull infected animals
- ★ Prevent contact with infected feces or contaminated food and water containers

### **Inherited abnormality**

Inherited condition in which the incisors fail to meet and thus, grow to extreme lengths; may also result from dietary, infectious (abscesses), or traumatic reasons

### **Protozoa**

*Eimeria* spp.

Transmitted by ingestion of sporulated oocysts passed in feces and found viable in soil, feed, on personnel, caging, and utensils for several months

Common treatment:

### **Sulfa 9**

- Best prevented and/or controlled through rigid sanitation practices
- Treat infected animals with medication containing sulfaquinolone or monensin as a feed additive or in water-soluble form

# Chapter 10:

## Show Preparation

### Introduction

Raise or purchase purebred rabbits for show that are of a breed recognized by the American Rabbit Breeders Association. Crossbred rabbits, or rabbits of unknown or mixed breeding cannot be shown in ARBA sanctioned shows. An ARBA sanctioned show insures exhibitors that rabbits will be judged by comparison to the same ARBA *Standard of Perfection* for their breed. ARBA licensed judges are required to use the *Standard of Perfection* as a basis for evaluating rabbits, which helps insure uniformity of judging.

Youth may begin their showing experiences at the county fair. ARBA judges judge many county fair rabbit shows following the *Standard of Perfection*. Counties offering these types of 4-H rabbit shows promote interest in breeding and exhibiting purebred rabbits, and help youth learn about their rabbits' good qualities, as well as their faults. County and state fairs may also offer showmanship classes, judging contests, rabbit skillathons, knowledge bowls, educational poster contests, and other learning opportunities. Enter these classes to increase your knowledge about rabbits and develop new life skills. Fun contests, such as a rabbit costume class, allow you to further enjoy your 4-H project.

Rabbit shows offer many other opportunities for 4-H members. In addition to learning about your own rabbits' qualities, showing rabbits also helps you learn about rabbits in general. Rabbit shows are a great place to meet knowledgeable rabbit people, rabbit breeders, and make life-long friendships. Shows are a good outlet to advertise, sell, buy, or trade rabbits. At many shows, rabbitry supply businesses

sell rabbit cages, equipment, books, and other rabbit supplies not readily available locally.

### Selecting and Grooming

Show preparation begins as soon as you acquire your rabbits. Rabbits must be in good overall physical condition when they are exhibited at shows. "Condition" as defined in the ARBA Standard is in relation to the rabbit's health, cleanliness, fur, and grooming. Therefore, begin by always keeping hutches and cages clean. Give the rabbits quality daily care and protect them from direct sunlight to prevent their fur from becoming faded.

Carefully inspect your rabbits and select those for show with the fewest faults, and without disqualifications. These rabbits will be the most competitive at shows. Breed, group or variety (color), sex, and class (age and weight) determine in which class a rabbit will be shown. You must know this information prior to entering your rabbit. Review the ARBA's *Standard of Perfection* for your particular breed to become familiar with the point scale your rabbit will be judged against.

Begin grooming the rabbits you have selected at least six weeks before show time. Grooming should be done in the cool part of the day to prevent the rabbits from getting too hot. Handling rabbits when it is hot can cause unnecessary stress and heat stroke. Practice the proper method of picking up and carrying your rabbit. (Refer to the Handling section in Chapter 7.)

A small table covered with a carpet remnant can serve as a grooming stand. For the first few days of grooming, moisten your hands and rub them through the rabbit's fur until it is damp.



Once the fur is damp, gently and repeatedly stroke the rabbit from head to tail to remove loose fur. This may bring about molt, but it is better for the rabbit to molt then instead of at show time. There will be plenty of time for the fur to grow back by beginning the grooming process far in advance of the show.

After the first few days of grooming, stroke your rabbits from head to tail without dampening the fur. Stroking the rabbits on a daily basis will make their fur glossy and tight. Do not stroke the rabbits' fur going backwards (from tail to head). Rubbing against the grain of the fur can break the guard hairs.

Daily grooming does more than improving the appearance of your rabbits. It tames them, making them easier to handle at shows. As you are grooming, place your rabbits in the preferred pose for their breed and encourage them to stay in that position. Different breeds have different posing positions. Talk to someone familiar with your breed to find out how to best position your rabbit for show.

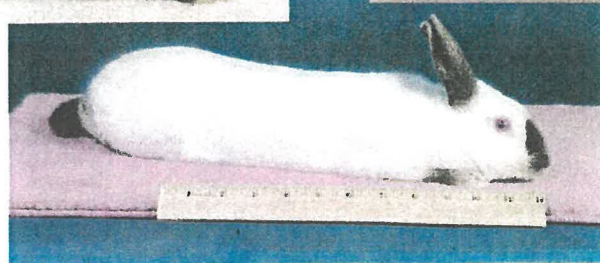
The purpose of posing a rabbit is to determine the rabbit's conformation and bone structure. To put a rabbit in the most common pose, position it on the table facing either right, if you are left-handed, or left, if you are right-handed. This makes it easier to pick the

rabbit back up when you are done. Position the tip of the front feet so they are even with the rabbit's eyes. Position the tip of the hind feet even with its hipbone. Make sure the rabbit's tail is showing and not tucked under its body.

## Showmanship

Showmanship is a combination of the 4-H member's appearance, sportsmanship and show ring ethics, knowledge of good rabbit husbandry and presentation of that information, and the ability to handle and show the rabbit according to its ARBA breed standard. Showmanship also includes the cleanliness and condition of the rabbit. A rabbit with faults and disqualifications will not be discounted or eliminated during showmanship. However, the exhibitor is expected to know his or her rabbit's good qualities, as well as any faults or disqualifications.

Practice showmanship and show ring procedures with your 4-H rabbits long before taking them to their first show. Work with your rabbit on a regular basis, sometimes with other people present. A rabbit that is used to being around different people, as well as being posed and handled on a table prior to being taken to a show, will behave much better than one that



is not. Practice can protect your rabbit from potentially dangerous situations, and can save you a lot of frustration.

A 4-H member showing his or her rabbit should wear a long sleeve shirt or coat, long pants or skirt, and shoes with closed toes and heels (no sandals or clogs). Remove any loose or dangling jewelry. Following these recommendations will help prevent injury while handling rabbits. Youth should also be well groomed, maintain eye contact with the judge, and communicate in a clear and confident voice.

Exhibitors will be expected to answer questions related to proper care, production, breed, variety, and class and fur descriptions. They should know other information contained in their project books or ARBA *Standard of Perfection*, according to the project they are enrolled in, and their age and experience in the project.

New members should not be overwhelmed by the vast amount of information available. Expectations should be based on age and experience. Most shows divide youth by age and experience levels for this contest.

Ohio 4-H has the goal of members being able to evaluate their rabbits used in the showmanship class for faults and disqualifications according to the ARBA *Standard of Perfection*. This should be done in the following manner with members verbalizing their inspection, showing the inspection, and exhibiting confidence, poise, and proper handling techniques.

When asked to examine a rabbit for disqualifications and general conformation, begin by checking the following:

### Ears

- Ear canker
- Illegible or missing tattoo in left ear
- Size and carriage (according to breed standard)
- Torn or missing portion



### Eyes

- Wall eye (white cornea)
- Spots on eyes
- Mismatched eye color
- Wrong color for breed standard
- Runny or weepy eyes





### Nose

- Colds (white nasal discharge)



### Front Legs

- Bent, bowed, or deformed



### Teeth

- Malocclusion (buck or wolf teeth)
- Simple malocclusion (butting teeth)
- Broken or missing tooth



### Front Feet and Toenails

- Missing toenails, including dewclaw (5 each front foot)
- Broken toenail(s) (too short to determine color)
- Unmatched toenails on same foot or corresponding foot, including dewclaw
- Nail color not meeting breed standard



### Chin/Neck Area

- Dewlap
- Abscesses



**Abdomen**

- Mastitis or swollen teats
- Tumor, rupture, or hernia
- Abscesses

**Hind Legs**

- Bent, bowed, deformed, or severely cow hocked

**Hocks**

- Sore hocks (Bloody)

**Hind Feet and Toenails**

- Missing toenail(s) (4 each hind foot)
- Broken toenail(s) (too short to determine color)
- Unmatched toenails on same foot or corresponding foot
- Nail color not meeting breed standard



## Sex

- Vent Disease
- Missing testicle(s) on Senior Buck
- Junior Buck with only one testicle showing
- Split penis



## Tail

- Stub, broken or wry tail





### Abscesses

Abscesses can begin as a cut or other abrasion on the rabbit's body that allows the entrance of infectious bacteria. This bacterium is *Pasteurella multocida*, which is very common in rabbitries. In addition to entering through abrasions, this agent can grow in the oral and nasal cavities, and spread via the bloodstream to various parts of the body and produce abscesses. A pus-filled sack or lump may form under the rabbit's skin as a result of this infection. When one of these abscesses is found, the rabbit should be separated from the others before lancing the abscess. As the contents of the abscess may contain infectious bacteria, the abscess should be drained and allowed to heal before returning the affected animal to the rabbitry. Apply an antibiotic ointment to the abscessed area. Consult your veterinarian about other antibiotic therapy. As infected rabbits can rarely be completely cleared of the infection, culling should be considered to reduce the risk of exposure to other rabbits in your rabbitry.

### Coccidiosis

Coccidiosis is one of the most common diseases of rabbits and primarily manifests itself as an intestinal disorder resulting in diarrhea. It is caused by protozoan parasites that are present in the rabbit's intestines. Generally, coccidiosis can be controlled by a combination of sanitation and medications available from your veterinarian. Some species of these intestinal protozoa will attack the bile duct of the liver, causing a more serious condition than diarrhea. Coccidiosis of the liver can also be treated with sulfa drugs administered through the water or feed, but often the cause of the rabbit's illness is discovered too late for treatment to be of much help. The principal signs of coccidiosis of the liver are severe weight loss and death. Yellowish-white spots in the liver can be seen on postmortem examination.

Good sanitation, especially of the feed and water bowls, is necessary to control coccidiosis. The best way to keep coccidiosis, particularly coccidiosis of the liver, from becoming a problem in your herd is to make sure that all manure and fecal material is removed from your rabbits' cages frequently. Most rabbits become infected with coccidiosis of the liver

through contact with fecal material that contains the eggs of the parasitic protozoa. Since these protozoa are very common in rabbitries, it is possible for a rabbit to become infected through contact with its own manure that has been present in its hutch for a few days.

### Ear Canker

Ear mites are small parasites (*Psoroptes cuniculi*) that invade a rabbit's ears causing ear canker. Rabbits with ear canker may shake their heads violently or dig at their ears with their back feet. There will also be a brown discharge in the ear. Ear canker can easily spread from one animal to another. If ear canker is found in one rabbit, immediately check all of the rabbits for symptoms of infestation. Since an untreated case of ear canker can contribute to poor overall health, and incessant scratching can lead to infections, it is very important that all infected rabbits be quarantined and promptly treated. Chemical miticide eardrops can be obtained from your veterinarian and are very effective. A few drops of light mineral oil used as eardrops can also be an effective treatment. Mineral oil should be applied with a cotton swab.

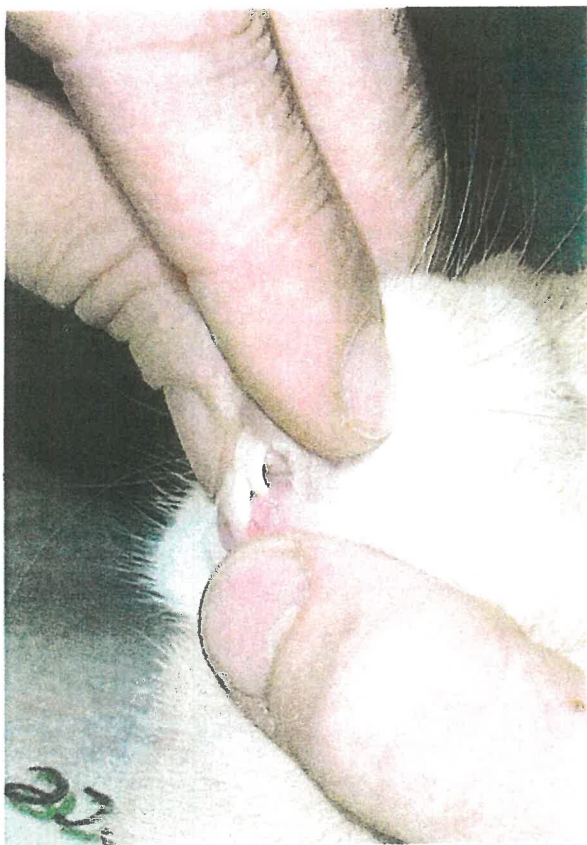


Ear canker

### Enterotoxemia

Enterotoxemia is a dangerous killer, especially common among four- to eight-week-old fryers. The first symptom is usually extreme diarrhea that will soon result in dehydration. Afflicted rabbits may also go off of feed and have a poor appearance. Rabbits infected with this disease will die very quickly, sometimes within one day.

Enterotoxemia occurs when certain intestinal bacteria grow and produce a toxin. To prevent enterotoxemia, follow strict sanitation practices since this disease might be contagious. Pay close attention to the diet you are feeding the rabbits. Abrupt changes in the diet—either in quantity or formulation—should be avoided. A diet that is very high in energy and low in fiber may contribute to this condition by creating an environment in the rabbit's digestive system that is favorable for enterotoxemia-causing bacteria to grow and produce their lethal toxins. Treatment is often unsuccessful, so prevention is the key. Roughage in the diet in the form of hay and straw can be used to minimize the risk of enterotoxemia.



Malocclusion

### Malocclusion

The teeth of rabbits continue to grow throughout life. Malocclusion is a disorder, not a disease. Rabbits with malocclusion display overgrown incisors (front teeth). This condition can be hereditary or the result of an injury. Since there is usually a genetic component to malocclusion, rabbits with this disorder should not be used as breeding stock. Pet rabbits with malocclusion should have their teeth clipped regularly by a veterinarian. If not clipped, the teeth will get so long that eventually they will prevent the animal from eating, which will cause it to starve to death. Other names for malocclusion include simple malocclusion, buck teeth, and wolf teeth. Simple malocclusion is a butting of the teeth. Normal teeth should show the upper incisors overlapping the bottom incisors.

### Mange

*Cheyletiella parasitivorax* and *Listrophorus gibbus* are the two most common types of fur mites found in rabbits. These microscopic external parasites live in the fur of many rabbits, usually not causing much trouble. However, if the population becomes too large, dermatitis results. You may notice mange by the patches of fur loss, especially on the back of the neck. The fur may also look unthrifty. The rabbit may also scratch at the infected area. Cat flea powder is an effective treatment for mange.

### Mastitis

Mastitis is an infection of the mammary system that affects lactating does. One of the first symptoms is that the doe will stop eating. Whenever a lactating doe goes off feed, thoroughly examine the animal for signs of illness. Upon examination, a doe with mastitis will have swollen mammary glands and an elevated temperature. The mammary glands may be red or they may take on a bluish color. Infected animals should be treated with antibiotics immediately. Allowing this condition to go untreated will result in the death of the litter and eventually the doe. Since mastitis is caused by such a highly contagious bacteria, *Staphylococcus aureus*, it is important to follow good sanitation practices to keep it from spreading throughout the herd. Sanitizing the nesting



boxes before and after use can minimize the risk of mastitis.

### Myxomatosis

Myxomatosis, or *big head disease*, is a viral disease of rabbits caused by a *Myxoma virus* and most often transmitted by mosquitoes and fleas. This disease has been observed in rabbits in the Pacific Northwest down to California, in locations where the wild brush rabbit lives. The brush rabbit carries the virus, which is deadly when transmitted by mosquitoes to domestic rabbits. In the acute form, the earliest signs of this disease are inflamed eyes and milky tears. These may not be noticed before the rabbit suddenly dies. The face, lips, eyelids, and sometimes ears will swell to gigantic proportions in the chronic form of Myxomatosis. Other signs may include swelling of the vent area in does and the scrotum and prepuce in bucks. No approved treatment exists in the United States.

### Pinworms

Pinworms are common internal parasites of rabbits found in the cecum. These small, white worms, about  $\frac{1}{2}$  inch long, shed eggs that are passed with the fecal pellets. Sometimes you can see the actual worm on fresh fecal pellets. When the eggs become dry, they can become airborne and contaminate feed and water. Pinworms are transmitted when rabbits eat or drink the contaminated feed or water. Normally, they do very little damage, however a heavy pinworm infestation can harm a debilitated rabbit. Consult your veterinarian for treatment if pinworms become a problem.

### Pneumonia

Pneumonia is an advanced respiratory infection that almost always results in the death of the infected rabbit. Usually caused by the bacterium *Pasteurella multocida*, pneumonia is often the result of an advanced, untreated case of snuffles. When a rabbit has pneumonia the tissues of its lungs become inflamed from the bacterial infection. This results in a decrease in lung capacity, and subsequently less oxygen is available to be absorbed by the blood. As pneumonia progresses, the rabbit suffers from the lack of oxygen. Symptoms of this disease include: 1) difficulty breathing, 2) bluish lips, 3) poor hair coat, 4) low rate of weight gain,

5) a generally poor overall appearance, and 6) sudden death. Treatment may include sulfa drugs or antibiotics, but is rarely effective because of the damaged state of the rabbit's lungs and other organ systems.

Prevention is the best treatment for pneumonia. To prevent pneumonia, pay close attention to ventilation and sanitation, since a build-up of ammonia can contribute to the disease. Continuously monitor the animals for any signs of respiratory distress, and act immediately if a problem arises.

### Ringworm

Ringworm (Dermatophytosis) is a highly contagious fungal infection caused mainly by two genera of fungi: *Microsporum* and *Trichophyton*. It is easily transmitted by direct contact with spores on the rabbit's hair coat, in bedding, and/or on soil. Ringworm is a zoonotic disease, meaning it is transmissible from animal to human, and vice versa. Therefore, use extreme caution when handling infected rabbits. Always wear disposable gloves and clothing that can be boiled or discarded. Signs of ringworm include superficial, crusty sores, usually first found on the rabbit's feet or face. The hair is lost in a circular pattern over the sores, hence the name "ringworm." Iodine is an effective treatment for individual rabbits. The drug griseofulvin is commonly used to treat ringworm in herd outbreaks. Consult your veterinarian for treatment.

### Snuffles

The first symptoms of snuffles are a discharge from the nose and often sneezing. Rabbits may sneeze for many reasons, but if sneezing continues, investigate further for more signs of snuffles. Look for matting of the fur on the inside of the front paws. This indicates a regular discharge from the rabbit's nose. The rabbit is attempting to wipe the discharge off by using its paws.

Two important things to remember about snuffles are: 1) it is extremely contagious, and 2) it is a permanent condition. Rabbits with snuffles should be immediately quarantined. Great care should be taken to not spread the disease to healthy animals through contaminated hands, clothing, or equipment. The symptoms of this disease can be treated with





**Snuffles**

antibiotics. The symptoms may go away, but during periods of stress they will reappear. Due to the highly contagious and chronic nature of this disease, it is recommended to cull infected rabbits from the herd. Youth with pet rabbits should consult a veterinarian.

Snuffles is the result of a bacterial infection with *Pasteurella multocida* being the usual agent. The bacterium *Pasteurella multocida* can be especially troublesome for rabbit owners since it is often the cause of other conditions such as weepy eye, pneumonia, and abscesses. If left untreated, snuffles will probably progress into a secondary infection such as pneumonia.

The best way to combat snuffles is to keep it out of the herd, but this is very difficult because an estimated 30 to 90 percent of the apparently healthy rabbits in conventional colonies are carriers. An effective snuffles prevention program includes: 1) buying new stock



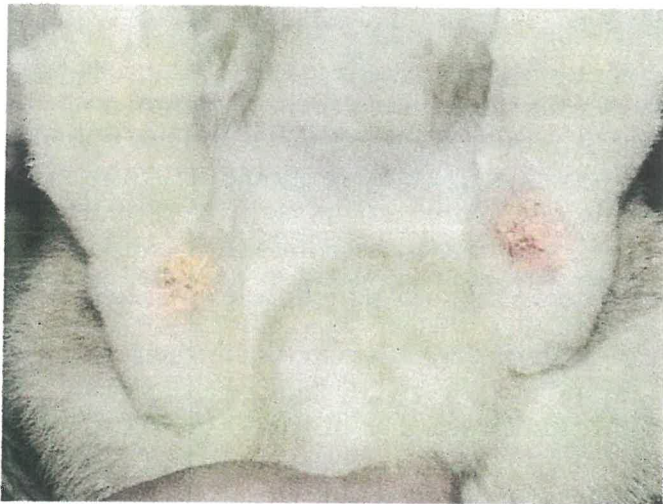
**Snuffles (paws are matted from wiping nose)**

only from colonies that test and are known to be free of *Pasteurella multocida*, 2) following good sanitation practices, and 3) making sure the rabbitry is adequately ventilated. This reduces the ammonia level in the rabbitry. High ammonia levels often lead to outbreaks of snuffles.

### **Sore Hocks**

Sore hocks is not a disease, but it can lead to secondary infections. Affected rabbits usually have sores on the portion of their hind legs that are in contact with the floor. These sores often cause the animal to greatly reduce its activity and food intake. If the sores become infected, the rabbit's health may seriously deteriorate and death could result. Rabbits that develop sore hocks often have less fur on their feet than those that do not acquire this condition.

A predisposition for developing sore hocks may be inherited. Certain breeds, particularly the Rex, seem to be especially prone to sore hocks. Larger breeds, such as the Checkered Giant, are also prone to sore hocks because of their size. Active rabbits are more prone to sore hocks than are inactive rabbits, as well as rabbits that are stressed. If sore hocks become a problem in your herd, consider culling animals that are affected. Do not use them for breeding stock. Breeding this problem out of the herd is possible by careful selection of animals with



**Sore hocks**

thicker guard hairs on the bottoms of their feet.

Prevention is the key to keeping sore hocks out of the herd. Keep cages clean and free from rough surfaces. Place a smooth board in the cage as an alternative to the rabbit always standing on the wire floor. However, this will increase the frequency of cleaning and disinfecting the cage to prevent the wood from harboring any diseases.

To treat sore hocks, apply a topical antibiotic cream prescribed by a veterinarian to the infected area daily. In advanced cases, under the direction of a veterinarian, administer an internal antibiotic, either orally or in an injection, to treat any systemic infections that may occur as a result of the sore hocks.

### **Vent Disease or Rabbit Syphilis**

Vent disease is a common reproductive disease of rabbits. Check the external genitalia of all breeding stock regularly for any sores or scabs that may indicate the presence of this disease. Little or no breeding activity when bucks and does are placed together and a decline in pregnancies are two other indications of vent disease. Vent disease can be treated with antibiotics under the direction of a veterinarian.

### **Viral Hemorrhagic Disease (VHD)**

The first confirmed cases of Viral Hemorrhagic Disease (VHD) in the United States were reported by the U.S. Department of

Agriculture in 2000. The agent of this highly contagious, deadly disease is caused by a virus of the Calicivirus family. The disease is also called Rabbit Calicivirus Disease.

VHD invades the respiratory or digestive tract of the rabbit or enters through scratches and abrasions in the skin. Other possible means of transmitting the virus to a healthy rabbit is by direct contact with an infected rabbit or the feces of an infected rabbit, meat or by-products of infected rabbits, and contaminated equipment.

The VHD mortality rate in infected rabbits is 90 to 100 percent. Three forms of the disease are reported. In the peracute form, finding dead rabbits is the first indication of the disease. In the acute form, the early signs seen include depression, loss of appetite, and difficulty breathing. Within a day or two the rabbit shakes, and exhibits pain and incoordination before dying. There is a mild form of the disease where the rabbit is observed to be sick, recovers, and then is immune to reinfection.

Upon postmortem examination, a pale liver and hemorrhagic lesions throughout the body may be seen. Treatment for VHD is not practical as it develops very quickly and rapidly kills the infected rabbits. Prevention is the key to keeping this disease out of your rabbitry. Quarantine rabbits returning from shows or new to your rabbitry. The incubation period for VHD is short, 48 to 72 hours; therefore, a one-week quarantine is satisfactory. Sanitize and disinfect equipment inside and outside the rabbitry, and restrict visitors or require them to wear disposable boots and gloves and go through a disinfection procedure. State animal health officials should be notified immediately if VHD is suspected.

### **Weepy Eye**

The recognized symptom of this disease is a discharge from the eyes that progressively worsens if left untreated. This discharge is usually caused by the bacteria *Staphylococcus aureus* or *Pasteurella multocida*. Advanced cases may result in a blocked tear duct, which can only be opened by a veterinarian. The best procedure is to treat the infection early with an ophthalmic (eye) ointment containing an antibiotic.





### Wry Neck

It is easy to diagnose a rabbit with wry neck because its head will be severely twisted to one side or the other. This is usually the result of an infection of the middle ear that adversely affects the rabbit's equilibrium. Treatment requires long-term antibiotic treatment and even then it often fails. Since it is an abnormal and uncomfortable condition it is highly recommended that afflicted rabbits be culled immediately.

### Red Urine

Rabbit urine commonly has a reddish pigment, and unless blood is seen, is not cause for alarm. Rabbit urine frequently contains large amounts of calcium oxalate or calcium carbonate, which is seen as deposits on cage walls or floors, and in the bottom of litter boxes. This red coloration is especially noticeable when the urine is alkaline, usually due to the type of feed eaten.

### Molting

A rabbit's coat is referred to as prime when the hairs have achieved their maximum and even length with a good sheen and are tight (no loose hair). The coat should return to place evenly when rubbed from rump to shoulders. A dull, uneven coat with loose hair is referred to as "un-prime" or "open."

Molting is the process of growing new fur. Various molts are associated with the rabbit's age, and are affected by feed, health, season, and temperature. The first molt occurs at about two months of age and lasts until the rabbit is four to six months old. During this molt, the rabbit will develop a thicker, adult coat. There is also an annual molt with most mature rabbits. The annual molt arrives at different times in different geographical areas. Shedding normally starts on the side of the rump and thigh, followed by the back and down over the sides. Rabbits tend to go off feed for a few days before going into a molt. Fiber is extremely important in the diet at this time as the incidence of hairballs becomes greater. A new coat of fur will grow in four to six weeks. Removing dead, loose hairs by brushing the rabbit daily until the presence of loose hair is gone will promote a new coat within the four- to six-week time period.

Hair loss will also occur as the doe prepares to have her litter. While normal, this will produce large hairless areas of smooth skin. This hair will be used in building a nest for her kits. Hair loss can also be the result of external parasites or fungal infections.