

Rabbit

Leader Resource Guide

Special Thanks to Nancy Dagley, Rabbit Leader for the Hill'n'Dale 4-H Club in Lunenburg County, NS for researching and organizing the sources for this manual.

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New Brunswick 4-H Rabbit Project - Year 1 & 2**

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4-H PLEDGE

I pledge my head to clearer thinking
my heart to greater loyalty
my hands to larger service
and my health to better living
For my club, my community and my country.

4-H MOTTO

"Learn to do by Doing"

4-H GRACE

(Tune: Auld Lang Syne)

We thank thee Lord for blessings great
On this our own fair land.
Teach us to serve Thee joyfully
With head, heart, health and hands.

Who to Contact

If you have any questions about the 4-H program or this project, contact the
4-H Specialist in your area:

Western Region - Yarmouth, Digby, Annapolis 584-2231

South Shore Region - Lunenburg, Queens, Shelburne 543-0505

Valley Region - Hants, Kings 798-8377

Central Region - Halifax, Cumberland, Colchester 893-6586

Eastern Region - Antigonish, Guysborough, Pictou 755-7150

Cape Breton Region - Richmond, Cape Breton, Inverness, Victoria 563-2000

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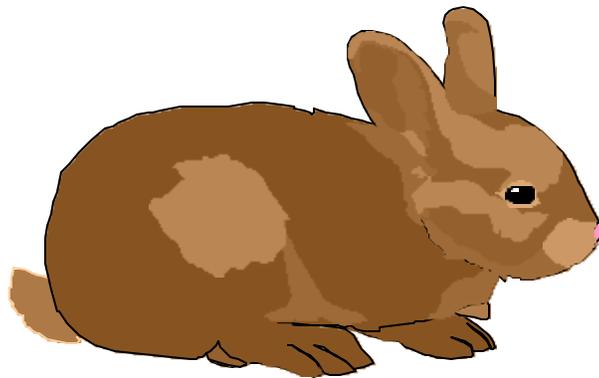
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4-H RABBIT PROJECT

Dear 4-H Rabbit Leader:

Welcome to an exciting and enjoyable 4-H project. If this is your first year you must be eager to learn as much as possible about owning and showing rabbits

Welcome to 4-H!

4-H is an organization for rural youth ages 9-21 that is active in countries all over the world! The primary goal is the development of members as individuals and responsible members of society through an appreciation of the agricultural industry and by having fun.

Through the motto Learn To Do By Doing, the 4-H program in Canada aims to help young people:

- ! Increase their knowledge and develop skills in subject matter areas which are of interest and value to the individual;
- ! Acquire a positive attitude towards learning;
- ! Build self-confidence;
- ! Develop a sense of responsibility;
- ! Develop the ability to make wise decisions;
- ! Learn how to work effectively in groups;
- ! Acquire leadership and communication skills;
- ! Enlarge their horizons by participating in new experiences.

The name 4-H is derived from the first letter of the four words Head, Heart, Hands and Health; the significance of which is expressed in the 4-H Pledge.

I Pledge

My Head to clearer thinking

My Heart to greater loyalty

My Hands to larger service

My Health to better living

For my club, my community and my country.

What do you need to know to be a Rabbit Project Leader?

This resource guide has been designed to give you all the information you need to know. Learning to care for, show, and judge rabbits is of great interest to many youth, and your participation as a leader will be very rewarding!

4-H IN NOVA SCOTIA

The 4-H Program has been operating in Nova Scotia since 1922 when the first club was organized in Heatherton, Antigonish County. The provincial and county councils provide the means for direct youth and leader involvement in programming and decision-making. The Nova Scotia Department of Agriculture and Marketing is the sponsor of 4-H.

Nova Scotia has six regions, each managing its own 4-H program through the cooperative efforts of 4-H Specialists, the regional staff of the Nova Scotia Department of Agriculture and Marketing, the county leaders councils and the provincial 4-H office. They help clubs organize, function, learn and develop.

The county council is composed of leaders, junior leaders, and senior members within a county. This body plans and organizes the yearly activities of the area.

The Nova Scotia Department of Agriculture and Marketing in Truro is the administering body of the provincial program and assists each county with resource support.

The role of a 4-H Project Leader is to help 4-H members understand the topic through activities and projects.....

Have fun while you and your club members are learning together!

ACHIEVEMENT DAY

Achievement Day is one highlight of the 4-H club year. Achievement Day allows members to display to the public, the projects they have worked on all year and have them evaluated in a non-competitive manner. They are evaluated on the quality of project work with consideration being given to the member's age and the number of years in 4-H. Each club or county plans, prepares for and holds its own Achievement Day. Members who participate in public speaking and/or demonstrations will receive recognition for this on their Achievement Day Certificate.

Clubs usually make this event into a community day for the families and friends of the club members. This brings the community closer to 4-H and gives members an opportunity to show their accomplishments.

Any member who receives a project completion at their Achievement Day is then eligible to enter their project into their local exhibition or county show. Winners from the exhibition go on to compete at the Nova Scotia 4-H Show.

Please refer to the Rabbit Project Newsletter of the current 4-H year for detailed information on project completion requirements, record sheet, judging, club contribution etc.

BECOMING A RABBIT LEADER

We are pleased to have you as a rabbit leader! On the surface, leadership would seem to be just planning and organizing. But it's really a chance for you to use your knowledge and interest in working with youth to help them develop individually and achieve their goals. This is a challenging and rewarding experience! The time you spend with youth from your community will be very valuable for everyone involved.

YOUR ROLE AS A VOLUNTEER LEADER

As a volunteer leader you will:

- ! Plan project meetings and events;
- ! Provide guidance in completion of projects;
- ! Provide a fun atmosphere for meetings and activities;
- ! Encourage members to adopt a positive attitude;
- ! Challenge the members to do their best;
- ! Help members set and reach goals;
- ! Enjoy involvement in 4-H!



Most people would agree that the core of 4-H club work is the project. Through the project, club leaders work with members to help them achieve the objectives of club work. Upon successful completion of a project members will gain:

- ! A feeling of accomplishment;
- ! Recognition for their work;
- ! Self-confidence.

ADVANTAGES OF BEING INVOLVED IN THE RABBIT PROJECT

- ! You will help youth learn skills and information about various types of rabbits, and give them practical ideas about what they can do to learn more.
- ! You will help young people learn the responsibilities involved in owning livestock.
- ! You will prepare members for citizenship responsibilities through learning to do by doing;
- ! You will have the opportunity to learn more about rabbits through teaching, observing, and participating.

This Rabbit Leader Resource Guide has been designed to help and guide you in teaching the materials associated with the Rabbit Project. Feel free to contact your local 4-H Specialist or Agricultural Representative at any time for additional assistance.

TEACHING THE PROJECT

Most of us would agree that the core of 4-H club work is the project. Traditionally, club work has been organized so that every member takes a specific project. Through the project, club leaders work with members to help them achieve the objectives of 4-H. A member who successfully completes a project will receive:

- C A feeling of accomplishment;
- C A challenge to his or her abilities;
- C Attention from others, mainly through displaying a project at Achievement Day;
- C Pride of ownership;
- C A sense of responsibility.

The job of the project leader is important. Effective project leadership really begins with the wise selection of projects. Project leaders should help members choose their projects carefully to suit their interests and abilities.

PRINCIPLES OF LEARNING

Project leaders are really teachers. Leaders are therefore concerned with what and how the members **learn**. These principles may be useful to keep in mind.

- C Principle of Activity** - learning is increased when the members **actively** participate (through helping to plan, being a part of the program and through practice sessions).
- C Principle of Transfer** - things learned in one situation tend to carry over to similar situations. Members may have learned things from another project, in school or in another activity that will help them in the project you are teaching. Find this out and build on it.
- C Principle of Satisfaction** - satisfying results strengthen learning; unsatisfying results weaken what was learned. If a member is to be satisfied with their project they need to be helped to select one for which they have the ability and in which they show a real interest. Members also need to be taught well and to be encouraged to complete their project. If these needs are not met, they will not be satisfied with the project and will not have learned as much.
- C Principle of Attitude** - a bad attitude toward the project or club work retards learning; a favourable attitude increases learning. A project leader needs to understand the members as individuals to help them develop a favourable attitude.

- C Principle of Rewards** - rewards strengthen and maintain any learning that leads to them. Rewards need not be tangible, such as a prize, a trophy or a ribbon given at the Achievement Day. In fact, most members will need rewards often during the club year rather than only at the end. Rewards can be intangible such as a word of praise from the leader, or recognition from the group during the year.
- C Principle of Frequency** - more frequent presentation increases learning. Project leaders follow this principle by repeating important parts of the project, by reviewing, by using oral and written questions.
- C Principle of Practice** - the old adage "practice makes perfect" is very true in 4-H project work.
- C Principle of Timing** - learning is increased by introducing a fact or skill just before it can be used in a practical way. For example, the members should be taught how to feed their rabbits at the start of the project, not at the end, so that they can use the information right away.

IMPORTANT STEPS IN TEACHING

DRAW UP A PLAN FOR THE YEAR

Planning should be done near the beginning of the club year by every project leader. You will decide how many meetings your project group will hold and what topics are to be studied. In planning, decide what will be taught, how and by whom at each meeting. You may want your members to help, particularly older members, and each member in your project group should have a copy of the plan.

CONSIDER YOUR MEMBERS

Before starting to teach it is wise to look at the number of members, their ages and their experience. The size of a project group should not be too great. This will depend on the project, but generally not trying to teach more than eight is best. If there are more than this in one project the club could consider finding more project leaders or assistants.

As far as possible, the members in one group should be about the same age and/or experience level. For example, teaching a certain topic to a group that contains both 16 year old members with several years experience and 10 and 11 year old members with no experience may be difficult for one leader. In a situation like this, the group should be divided into at least two sections, or the leader could draw on the experience of the 16 year old members in the group.

THE MEETING PLACE

Wherever the club meets, inside or out, at home or in a school, the meeting place should be comfortable. Members cannot concentrate:

- C if they are too hot or too cold;
- C if there are distracting noises;
- C if there are other happenings of interest nearby (such as other project groups);
- C if they have to sit or stand for too long at once;
- C if they are hungry.

GAIN THE INTEREST OF THE MEMBERS

If leaders are to obtain and keep the members' interest they must become aware of the importance and interest of the topics they are to learn. This is easier with some parts of the project than others since some phases can be related to the members' needs or interests. For example, members may be more interested in working with their rabbits but it may be a challenge for the project leader to try to show members the importance of keeping records.

START WHERE THE MEMBERS ARE

At the start of the year find out what it is about the project that interests them, how much they already know and if they have any questions. This will help you know where to start teaching and help avoid teaching above the members' heads or at too elementary a level, both of which can destroy interest. As you teach, make sure the topic being discussed, the words, charts and other teaching tools being used can be understood by all members.

HAVE EVERY MEMBER ACTIVE

Involve as many members as possible through planning, arranging for the meetings and at the meeting itself. Wherever possible, a practice session should follow project instruction, giving every member a chance to become involved. **Experience is the best teacher** and members retain more information if they learn through practical experience. It has been shown that we remember:

- C 30 per cent of what we hear;
- C 80 per cent of what we see and hear;
- C 90 per cent of what we actively participate in.

MAKING TEACHING PRACTICAL

The methods and equipment you use in teaching should be practical in the sense that they may be used by or are available to the members. Wherever possible, use real items in a demonstration rather than pictures. For example, in teaching how to show the rabbit, you will want to teach by actual demonstration rather than just talking or only using posters.

USE A VARIETY OF TEACHING METHODS

When doing your planning for the year, consider different ways at presenting the material and choose the method that will be the most suitable. Each method will have advantages in particular situations and a change in teaching methods helps to maintain interest. Your knowledge of members' characteristics at various ages will be a help here. For example, younger members need more frequent changes and more activity to keep their interest. Members in their early and mid-teens like to work in groups, which means you can use panels, role-playing and other group techniques.

PRINCIPLE OF OBJECTIVES

The members should understand and accept the goals of the project.

PRINCIPLE OF PROGRESS

Learning goes best when the learner can see he or she is making progress. Younger members especially may need shorter-term goals so they can see from meeting to meeting how they are progressing, rather than waiting until the Achievement Day. **In all projects, dates should be set for completing parts of the record book.**

PRINCIPLE OF MOTIVATION

No one learns if he/she is not motivated to learn.

Types of motivation for members:

- < **Competition** - Competition may act as a motivation to learn for those who feel they have a chance to win the competition, but do not let it get out of hand so that the individual's personal development may suffer.
- < **Cooperation and opportunity** for planning the meeting are motives that affect learning.
- < **Praise and criticism:**
 - ⊆ A good incentive is praise for work well done;
 - ⊆ Too much or undeserved praise has a bad effect;
 - ⊆ Praise is better than criticism and constructive criticism is better than completely ignoring a learner's efforts;
 - ⊆ Sarcasm and ridicule affect self-esteem.
- < To **like and respect** the teacher helps the learning process.

PROJECT MEETINGS

As a project leader you may be involved in teaching the project at various places and at various activities. However, most of your teaching will be done at a project meeting.

The project meeting may follow a general meeting or it may be a specific project meeting for the members in your project group. Following are suggestions to organize the project meeting:

- C Project Reports by Members** - this might be the first item in the meeting. It provides an opportunity for members to report on their project work since the last meeting, to bring up any problems or questions and for the leader to determine their progress, answer questions and make suggestions.
- C Introduction to the Next Topic** - Outline the new topic and the reason for its importance. This is the place to gain the members' interest so that they will be attentive for the next part.
- C Group Instruction** - This is where the actual teaching of the new topic takes place using the best method. This will be done by the project leader, the members or by a special resource person.
- C Group Activity** - This is a practice period in which the members do something. If possible, they should practice what has been taught. If not, they may work on record books or practice demonstrations.
- C Individual Help** - while the group activity is going on, the leader may help those who need it.
- C Preparing for the Next Meeting** - here the leader may give instruction on homework to be done, items to bring to the next meeting and so on.



HOW THIS RESOURCE GUIDE IS LAID OUT

This resource guide contains units covering different aspects of selecting, caring for, showing, and judging rabbits. Each unit contains the following:

- ! **Background Information** - The beginning of each section has an introduction with **general** information about the topic.
- ! **Section Material** - this section contains **specific** information about the topic and activities related to items of specific interest to 4-H participants.
- ! **Activity Ideas** - Each section will contain several activity ideas. These activities can be carried out at your 4-H project meetings, or may involve a trip to a local rabbitry, vet clinic, etc.

A Glossary has also been included at the back of this manual.

Project record sheets and the **Rabbit Project Newsletter** are extra supplements to this resource guide.



AUDIO VISUAL RESOURCES AVAILABLE

Audio visual resources are available through the Provincial 4-H office in Truro on a two-week loan period. To book slides or videos, call (902) 893-6585 and give the title and number of each requested. Please contact your general leader for a more detailed listing of what slides and videos are available. Please give the dates needed and return them by the date specified.

SELECTING STOCK

A Brief History of The Rabbit

Rabbits have been around for about 30-40 million years and according to their fossilized remains, have changed little since that time. When they have changed it was because of man's influence. Spain is considered to be the original home of the rabbit, as relics of them have been found on the Spanish peninsula dating back over 600,000 years. The Phoenicians are credited with helping to spread the rabbit throughout the world. In Turkey there is a Sphinx, supported by 2 rabbits, that dates back to about 1500 B.C. There is very little mention of the rabbit in the Bible and it is unclear as to whether or not it was a rabbit that was being spoken of.



The Romans were the first to build enclosures called Leporarii to bring rabbits under control and raise them in captivity. At first they ran into problems. The enclosures were good enough to control the hares, as they were a surface dweller, but the rabbits were a burrowing animal and they easily tunneled out under the walls. The Romans solved the problem by laying the foundations for the wall deep underground and were then able to keep both the hares and rabbits in.

It was thought by the Romans that rabbits meat aided in the beauty of the Roman women and great quantities of rabbit were consumed by them. Although they did not know it they were consuming the most nutritious meat there is. Even the court doctors were prescribing it for stomach problems. As the Empire grew the Romans spread the rabbit throughout Europe. It was used for hunting and food.

French Monks of the middle ages raised rabbits' in cages kept in the monastery. They were used for food and clothing and the small amount of space required meant that everything could be kept inside. The monks are given credit for the actual domestication of the rabbit. In the wild, mutation for colour probably occurred but could not survive due to easily being taken by predators. In captivity mutations would be saved and watched. Hence the first domestic breed of rabbit produced by the Cistercian monks of Champagne, France were silver in colour. Loosely translated they were known as the Silvers of Champagne or as we know them today Champagne D'Argente. Rabbits were traded freely among the monasteries throughout Europe and those without found them very easy to obtain.

The Normans brought rabbit keeping to England and in 1792 Thomas Berwick produced a book called "Berwick Quadrupeds" which showed 4 kinds of rabbits, large and small tame, Piebalds (white with coloured markings), and Angoras. At about this time it became necessary to start naming the breeds that were being produced and the more fancy the name the higher the price, the more that could be sold. It is also known that usually the name of the breed had absolutely nothing to do with where it was

originated. All Domestic rabbits seen today are offsprings of the European wild rabbits. There have never been any developed from the North American wild rabbits or hares.

Selecting Stock

New members should obtain advice from their Club leader or local Rabbit breeders, in selecting their project animals. It takes experience to be able to select, with accuracy, a good typed rabbit, and this is one of the things which the 4-H Rabbit Project will teach you with the help of experienced people. At the outset however, if you are a new member, seek the advice of the above mentioned people when you are selecting your rabbits and keep in mind that you do not have to purchase your rabbit right away.



It is not necessary to own a rabbit before you can become a 4-H rabbit project member. The well being of the rabbit is of the utmost importance and you, as a new member, should learn how to feed it, house it, and handle it, before you acquire it.

As the rabbit project starts in the fall the breeding of rabbits has started to stop due to the cold weather and shortening of daylight hours. It might be best to select the breed of rabbit you want to raise during your first or second meeting (if you haven't already decided), and then possibly you could make arrangements with a local breeder to hold one for you by making a deposit on it, until you have learned to properly look after it. It's between you and the breeder as to what you do but, keep the rabbit's well being foremost in your mind.

Standards of Perfection For Purebred Rabbits

For every recognized breed of purebred rabbit there is a written standard which describes, in detail, exactly what the breed should look like. It describes all of the breed's physical features and exactly how they are to look and fit together. The purpose for the written standard is so everyone raising that breed will be working towards raising the same typed rabbit for that breed. A recognized breed of rabbit has gone through a lengthy process which takes 3 years to complete. Each of the 3 years must show an improvement in conformation, using its temporary written standard. At the end of the 3 years, if all has gone well, then the breed becomes recognized and its' standard is then placed in a **Standard of Perfection**.

Nova Scotia 4-H currently follows the Standard of Perfection from ARBA, the American Rabbit Breeders Association.

AGE/WEIGHT CLASSES

During almost any conversation about rabbits you are going to hear the words age and weight used frequently.

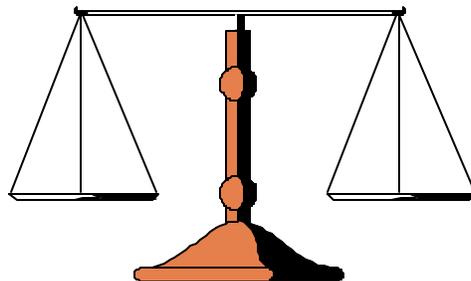
In the Standards of Perfection, there are age/weight classes for every breed of rabbit. As an example, let's look at the age/weight classes for the Netherland Dwarf breed (ARBA).

IDEAL WEIGHTS - NETHERLAND DWARF

Senior Bucks and Does:	6 months of age and over. Not over 2 1/2 pounds (1.1 kg) Ideal weight: 2 pounds (0.9 kg)
Junior Bucks and Does:	Under 6 months of age. Not over 2 pounds (0.9 kg)

The age/weight classes are set up for a reason, which is, if you raise Netherland Dwarf rabbits and at 5 months of age they weigh 1.5 lbs (.7 kg) and at 10 months of age they weigh 2.0 lbs (0.9 kg), then, conformation aside, you are raising good Netherland Dwarfs that grow properly. The age/weight classes show you the ideal way a rabbit should be growing as it ages.

You will also notice that there is a weight tolerance (or allowance) of + or - .45 kg (1 lb) for all the age/weight classes. This is for those breeders who have improved their stock more than the standard calls for and those who are not quite meeting the standard yet. Now if you're missing the tolerances then you are going to have to look at your stock and change your breeding program. Remember, bigger-faster is not better. Your senior rabbits would be disqualified because it would go over its weight tolerance. Consequently, smaller-slower is not good either. Your senior rabbits would be disqualified because it would not make its weight tolerance, and you **CANNOT** place a senior aged rabbit, or any other aged rabbit for that matter, in an age class, younger than it is.



POINT SYSTEM

Another thing you will notice in the standard, for each breed, is a section called points. A point system is applied to a part or group of parts of a rabbit. The higher the number of points applied to a part (s) denotes, or tells, it's importance in the physical makeup (how it looks and feels) of the rabbit. The points are used in the evaluation of judging of the rabbit. The higher the number of points the more important it is when your rabbit is being judged. While you are reading the standard try to apply what you're reading to your rabbit by looking and feeling. It will take a while but you will learn what to look for and recognize it when you see it.

For the Netherland Dwarf, (see below), type is most important, with condition and fur being the least important. Knowing what to look for and how important it is will be of great benefit to you (if you choose to learn it) when choosing your stock. So get yourself a standard and learn what to look for!

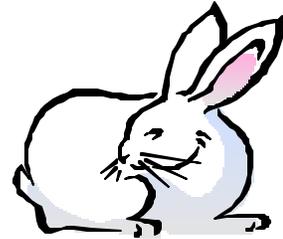
Here are the points for the Netherland Dwarf (ARBA):

Netherland Dwarf	
General Type	70 pts.
Fur	10 pts.
Color	15 pts
Condition	<u>5 pts.</u>
	100 pts.

* The **Pet Category** of rabbits in 4-H shows are for any rabbit that is not a purebred. They are judged on overall health and condition rather than on a point system.

Choosing Your Rabbit

Always place the **health** of the rabbit(s) over everything else.



When choosing a **Fancy Rabbit**, look for:

- The right type and conformation for the breed
- A rabbit whose eyes are bright and sharp
- A rabbit who is alert and active
- A rabbit which has no disqualifications for the breed
- A rabbit that is healthy

When choosing a **Utility Rabbit**, look for:

- The right type and conformation for the breed
- A rabbit whose eyes are bright and sharp
- A rabbit who is alert and active
- A rabbit in the medium size breeds that has good meat qualities (meaty shoulders, wide & deep loin and hind quarters)
- A rabbit that is right size for its age class
- A rabbit that is healthy

When choosing a **Pet Rabbit**, look for:

- A rabbit that is healthy
- A rabbit that is clean
- A rabbit whose eyes are bright and sharp
- A rabbit where everything fits together, with a smooth transition from one part of the body to the other.

Do's & Don'ts for Buying a Rabbit

All the above “things to look for” can help you in deciding whether or not to buy a rabbit from a seller. If you are not satisfied or don't feel comfortable about buying from the seller, then maybe you should consider going to someone else for your rabbit(s). **It's your choice.**

Never, never buy a rabbit out of sympathy, because it's hurt or sick. You will not be able to cure it. You will be leaving yourself open for nothing but trouble and disappointment. More importantly, you will be endangering the health of your fellow club mate's rabbits and their safety has to be first and foremost.

Do not let the price of a rabbit be the reason you buy it. Generally, the lower the price, the lower the quality and possibly its health. When you find a breeder that you want to buy from, tell them what you are going to do with it and you will find that if the breeder is caring and respects you, they will help you.

Determining the Sex of Rabbits

It is very important for you to learn how to determine the sex of rabbits. You will need to know this when you buy or sell rabbits, choose replacement or show stock and plan your breeding programs. It is possible to determine accurately the sex of a day old rabbit but, it is easier when the rabbit is 3 weeks old and much easier at 8 weeks old or at weaning time but, you first must learn what to look for.

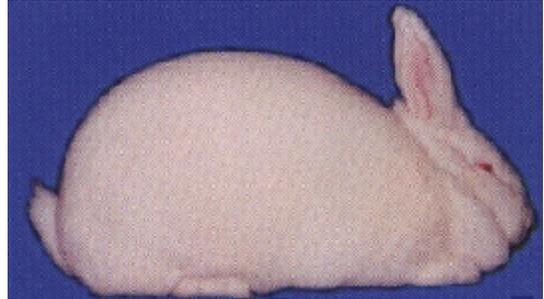
The newborn rabbit's external sex organs appear much the same in both sexes. A special technique, good eyesight, and good light are needed to identify the sex. With one hand take the rabbit by the ears and skin on the shoulder. Rest the rabbit on it's rump with it's feet in the air. Using your other hand place it behind the outstretched hind legs and use your index and forefinger to depress the tail organs, to expose the reddish mucous membrane. In the doe the membrane will form a slit; you can recognize the buck by the small round circle which forms looking like the end of a piece of hose. In older bucks the organ will protrude.

UTILITY BREEDS

New Zealand

The crossing originally of the Belgium Hare and the Golden Fawn produced the New Zealand Red and later the New Zealand White and New Zealand Black.

The breed has been around since about 1912 where its popularity grew and grew and is still growing today. Due to the main reason for its existence, food, it has picked up a few nicknames along the way, such as “Meat King”, and “Baby Beef”. It’s the preferred breed of the commercial producers and has acquired an excellent reputation as a show rabbit.



Its body should be of medium length, not long like the Flemish or short and cobby as in the Dutch. Its hindquarters should be well rounded and meaty with a deep well filled loin and shoulders in proportion. Weights - Senior Bucks 4.5 kg (10 lbs), Senior Does 4.9 kg (11 lbs).

Californian

The Californian has been around since about 1930. It is second only to the New Zealand as the most popular Utility breed used by commercial breeders.

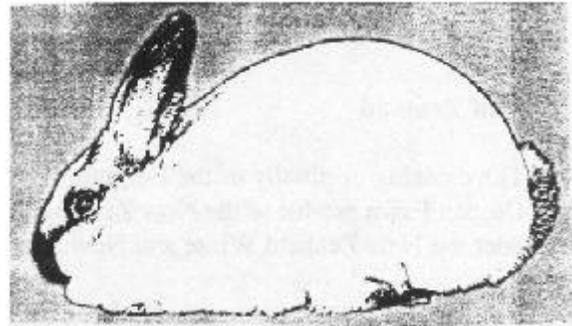
Like the New Zealand, the main reason for its existence is food. It is a bit smaller, but its body is well packed and meaty. It’s also shaped a little different.



To the Californian breeder, nothing can rival its beauty on the show table. Its lustrous coat and black point markings make it a most attractive show animal with its broad shoulders, deep well filled loin, and well rounded hindquarters. Weights - Sr. Buck 4 kg (9 lbs), Sr. Doe 4.3 kg (9.5 lbs).

Champagne D'argente

Some rabbit historians say that this was the first purebred of domestic rabbits. Raised in France for over 130 years, the fur is used quite extensively in the garment trade. Monks, from a Monastery in the province of Champagne, were the originators of this breed. Its fur colour is Silver, and Silver in French is Argente, hence the name Champagne D'Argente or the Silver's of Champagne.



The breed is judged primarily for meat purposes. It is fined boned with good meat qualities. On the show table, in prime coat, it is very hard to beat. The young of this breed are born jet black and begin silvering out at around 6 weeks of age. Weights - Sr. Buck 4.5 kg (10 lbs), Sr. Doe 4.8 kg (10.5 kg).

Satin

The Satin Fur, which is a mutation, appeared in a litter of Havanas in Indiana in 1934. The ones with the mutated fur were bred with others and eventually the Satin breed was born. The term Satin truly describes the fur of the breed and the fur is what makes this breed a breed.



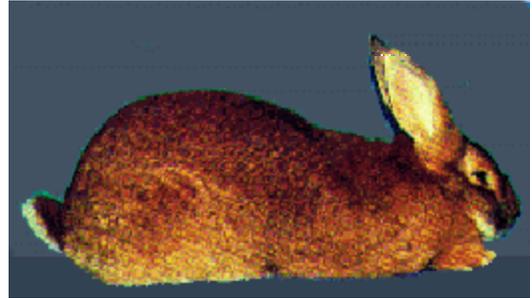
The fur is soft and silky and has a very noticeable brilliance or sheen, meaning, it does not shine like some normal furred rabbits, it glows. This comes about because, unlike normal fur, its hair shaft is hollow and the light passes through it and makes the colours come alive. One thing you can be sure of if there is no sheen, it's not a Satin.

The Satin is an ideal exhibition and commercial rabbit. Its excellent meat producing qualities and the lustrous sheen of its fur when on the show table, will rival any breed of rabbit for Best in Show. Weights - Sr. Buck 4.3 kg (9.5 lbs) , Sr. Doe 4.5 kg (10 lbs).

Flemish Giant

The Flemish Giant is the largest of all breeds. Opinions differ as to the true origin, but it is understood that the name originated in Flanders, Belgium.

Its forbearers had been bred in Europe for several hundred years. It's unknown when its present characteristics were finally developed. The breed is supported by the oldest and one of the strongest speciality clubs in North America. It is said that, once you raise the breed for a while it gets in your blood and it's almost impossible to get it out.

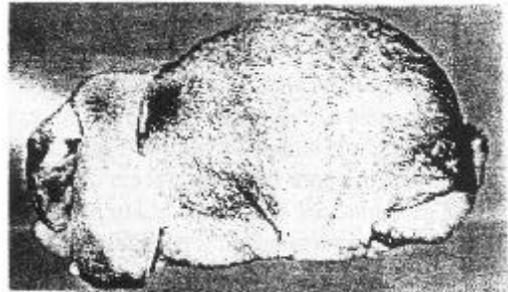


Although it is considered a commercial breed, its slow growth and large bone make it very uneconomical to raise in a commercial situation for food. However, once it is placed on the show table it's a different matter. People just stare in silence at this gentle "Giant". Weights - Sr. Buck 6.3 kg (14 lbs), Sr. Doe 7 kg (15 lbs).

FANCY BREEDS

French Lop

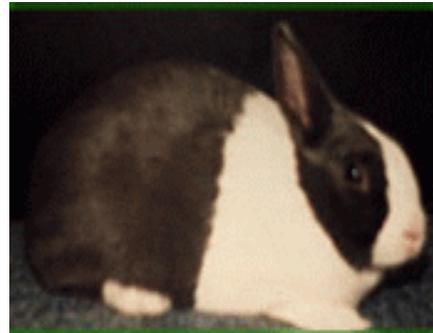
This breed has been around since the mid 1850's. It is believed to have been developed from a crossing of the English Lop and the Flemish Giant. One thing the French Lop is noted for is its personality. At times it seems like it is trying to talk while it investigates everything you are doing. It is also rather docile and good mannered, making it a real favourite among the public at fairs and exhibitions.



With its massive size, bold head, and its ears framing the head, giving with the crown, the appearance of an inverted horseshoe, it's a hard breed to resist. Weight - Sr. Buck 5 kg (11 lbs), Sr. Doe 5.5 kg (12 lbs)

Dutch

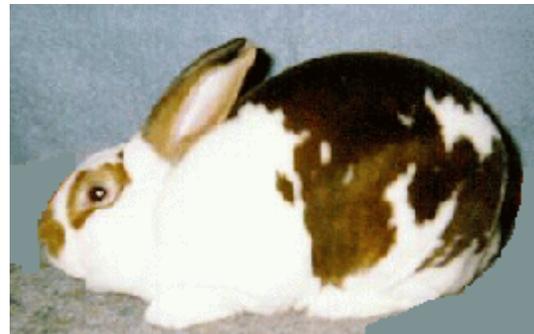
Originating in Holland, it is one of the oldest known breeds and one of the most popular of the Fancy rabbits. Its markings are purely genetic. Also, almost as soon as the litter is born you are able to tell the mis-marked ones, which means you will know right off how many you will have for sale as pets and how many you will keep for breeding stock or show stock. This saves you the time and money of growing the mis-marked ones up until they're mature, to see if they are worthkeeping.



The person who raises Dutch must be dedicated to the breed. The cheeks, neck, blaze, undercut, feet and more must all be marked their certain ways and breeders must constantly pay attention to these markings while at the same time, placing them on the proper, compact and cobby, Dutch body. They are high spirited and inquisitive and on the show table a perfect Dutch is unbeatable. Weight - Sr. Buck 2 kg (4.5 lbs) , Sr. Doe 2 kg (4.5 lbs)

Rex

The Rex breed is another breed that, like the Satin, its fur is the reason for the breed. It had appeared as a mutation, from parent stock resembling the Belgium Hare, in France. It was not until 1919 that these mutations were bred together and the Rex breed was born.



The fur should be short and plush-like and approximately 5/8" long, extremely dense, straight and upright, and should be the same length all over its body. With your hand open press down on this fur. If it's proper Rex fur you will be able to feel a moderate resistance to it being pressed down. If there is no resistance it's poor fur, and if there is strong resistance it's poor fur.

Although the Rex is a Fancy breed it was and still is, used for food production. Its pelt is extremely valuable to the garment industry, so nothing goes to waste. If you are planning on raising Rex, you will have to pay close attention to their feet, as they are very susceptible to sore hocks , due to the thin layer of fur covering them. A partial solid floor in their cage will eliminate this problem.

As a show animal they are extremely beautiful and add a lot of class to the rabbitry that raises them. Weight - Sr. Buck 3.6 kg (8 lbs), Sr. Doe 4 kg (9 lbs)

Havana

The Havana first appeared in Holland in 1898. They spread rapidly throughout Europe and England, and finally came to North America in 1916. The Chocolate Havana was the only colour variety, until 1956 when the Blue was developed. In 1980, the Black Havana joined the ranks to give us a choice of three colours.



While the Havana has a compact and cobby body with meaty shoulders and hindquarters, making it a nice small meat rabbit, it is the fur that makes this animal unique. Dubbed the “the Mink of the Rabbit family”, its fur is soft, dense, and extremely lustrous. The fur has equal importance to the type when being shown.

4-H Members have benefited greatly from this breed. A good beginners rabbit, the Havana normally has a mild, easy-going disposition, making it easy to handle and care for. On the show table, the lustre of their fur and their gentle manner make them one of the top contenders for the Best in Shows. Weight - Sr. Buck & Sr. Doe 2.5 kg (5.5 lbs)

Holland Lops

This is the smallest of the lop breeds. It was developed in the Netherlands by a Mr. Adrian DeCock in the late 1950's and came to America in 1976. They became a recognized breed in 1980 in the United States.

Curiosity and an endearing personality can best describe this breed. It is highly inquisitive (nosey) from the time you walk into the rabbitry until the time you leave, and it watches everything you do. This curiosity carries right on to the show table where it has to investigate everything. Each year they are becoming more and more popular as a show animal and they are packing up their share of Best in Shows.



They should resemble the French Lop in giving the appearance of a massive little lop. They are not a miniature duplicate of a French Lop though, because they do have their own individuality. The motto of its speciality club is “The Hallmark Breed” and that says it all. Weights - Sr. Buck & Sr. Doe 1.4 kg (3.0 lbs)

American Fuzzy Lop

The American Fuzzy Lop is one of our more recent breeds, and more or less just a woolly version of the Holland Lop. Though comparable in size, and every bit as curious as the Holland Lop, his woolly coat gives him a whole different look.



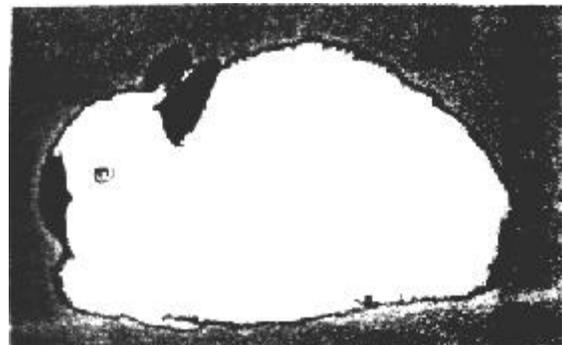
With its short cobby body, covered by 2" of wool, its ears framing an endearing face, it becomes a very hard breed to resist. The body should be well rounded and well filled, with no rise to the back from the shoulders to the hindquarters.

Grooming your Fuzzy Lop is not much more consuming than a normal furred rabbit. Extra time should be spent during moults, but other than that his coat will only need an occasional brushing and check for matted clumps. Many short-angora breeders feel over grooming can ruin the animal's prime coat. Grooming once a week should keep your Fuzzy Lop in excellent coat.

The Fuzzy Lop comes in numerous recognized colours, in solid and broken. Weight - Sr. Buck & Sr. Doe 1.8 kg (3.5 lbs)

Jersey Woolly

The Jersey Woolly is another of the recent breeds. A very new breed world-wide, breeders are still striving for a better Jersey and the quality has improved by leaps and bounds.



The Jersey Woolly has a gentle disposition. They are not given to aggressiveness nor are they over excitable. The wool on a Jersey is somewhat different than other angoras; 2-3" in length and when prime, the wool is full of life. This has to be seen to be believed but, when touched, the wool will actually move freely on its own. Small tufts of wool on the ears are allowed but, most Jerseys today do not have these. The Jersey Woolly should have a well developed wool cap on the head with side trimmings on the face. Grooming is much the same as the Fuzzy Lop. The body should be cobby, shoulders nearly equal in width with the hindquarters and well rounded. Protruding hip bones can be a problem with this breed, but that is gradually being improved upon. Weight - Sr. Buck & Sr. Doe 1.6 kg (3 lbs)

Mini Rex

This is another of the newer breeds. It was officially recognized as a breed, at the 1986 American Rabbit Breeders Association (ARBA) convention in Columbus, Ohio. Mona Berrywell was the originator of the Mini Rex breed. Since that time the breed's popularity has soared by leaps and bounds.



In the simplest of terms, as its name suggests, it is a miniature of the standard Rex. It should show balance and uniformity throughout. To the touch its body should be covered with firm flesh and no protruding bones should be felt. In other words, it should not feel skinny. Their fur is the same as the standard Rex's with the same plushness and resistance. Like the standard Rex you will have to pay attention to their feet as they too have less fur on them, compared to the normal furred rabbits and are subject to sore hocks. So, if you are going to raise them you are going to have to take extra precautions, like using a partial solid floor.

On the show table the Mini Rex has been holding its own and is showing up in the winners section more and more. They are available in solid and broken colours. Weight - Sr. buck 1.8 kg (4.0 lbs) & Sr. Doe 2 kg (4.25 lbs)

Netherland Dwarf

This is the smallest of all breeds of rabbits. It was developed in Holland by crossing the Polish with a small rabbit from the Netherlands. Coming to England in 1948 and Canada in the early 70's, it has become one of the top four most popular Fancy rabbits on our show tables.



It is a truly miniature breed with a short, compact, well-rounded cobby body with wide shoulders, well-developed loin and hindquarters. With the Netherland Dwarf when you see a good one you will know it. When everything is put together right you could compare its body to a short piece of 2x3 with straight lines from the shoulders to the hindquarters on the top, sides, and bottom. Now on one end of it place neatly, a round (in all directions) head with 2" long ears and you will have a perfect dwarf. It is very alert and inquisitive and with its bold and bright eyes, it doesn't miss a thing.

Where it is such a popular breed, raised by so many people, there are many, many different strains available. Some of these strains are very hyper-active and should be avoided. You and your rabbit have to work together, so it is best for you if you spend your time handling it instead of trying to catch it. They are available in 30 plus colours that are classed in 5 groups; Solids, Shaded, Agouti, Tans, and A.O.V.'s (any other variety). Weights -Sr. Buck & Sr. Doe 1.1 kg (2 lbs)

Angora

The Angora rabbit, which originated in Ankara, Turkey, has been around for hundreds of years. The first official mention of the Angora was in a 1765 French encyclopedia. It is the only rabbit that has a wool coat as opposed to the other breeds that have “fur” coats, except for Jersey Woollys and Fuzzy Lops.



Presently the Angora has 4 recognized breeds; **French** has no trimmings on its head, ears, feet, or legs; **English** has heavy furnishings and trimmings on its head, ears, feet, and legs; **Giant** has furnishings and trimming similar to the English, but not as dense; **Satin** has some side trimmings on its head only. As the name suggests it has Satin type wool. The Satin Angora is also the only breed of domestic rabbit that was made in Canada. Its originator was Helen Farley of Ontario. Weight -French Sr. Buck & Doe 4.8 kg (10 lbs), English (the smallest) Sr. Buck 2.7 kg (6.0 lbs), Sr. Doe.3 kg (6.5 lbs), Giant Sr. Buck 4.3kg (9.5 lbs), Sr. Doe 4kg (10 lbs), Satin Sr. Buck & Sr. Doe 3.6 kg (8 lbs)

Angoras are a bit smaller than the medium weight breeds. The most common Angoras found in this area are the English, and the French. They are raised entirely for their wool. Good Angora wool, when mature, will be about 3" long. When harvesting the wool, it should be plucked (only during it's moult) or shaved, but not cut. Angora rabbit wool has some unique characteristics unlike regular Angora wool that makes it ideal for spinning. It gives a tighter join and will not shed. It is easily spun and gives a much softer garment than regular Angora wool from other animals. Angoras require more upkeep than normal furred rabbits but if the upkeep is regular, then it is not too time consuming.

Raising Angoras as project animals could lead to a very interesting and rewarding hobby if the time is available to the member.



ACTIVITY IDEAS

1. Complete the “Questionnaire on Selecting Stock” located on page 16 of this chapter.
2. Visit a rabbit show. Rabbit breeders or fur & feather clubs in your area will likely be able to provide you with a list of upcoming shows. It’s a great chance to see and learn about a variety of different breeds.
3. Visit a rabbit breeder in your area. They are a great source of information on raising and caring for rabbits, and can offer lots of advice on what to look for when you’re buying rabbits.
4. Play “Name that Rabbit”. Photocopy pictures of rabbits from this manual. Print the names of breeds on pieces of paper and have members match the names to the breeds.
5. Complete the puzzle below.

“Which Breed am I?”

1. I am a utility rabbit, I weigh about 4-4.3Kg and have a lustrous white coat and black point markings. I am a _____
2. I am a fancy rabbit and known as the “Hallmark” breed. I am very little, with lop ears and an apple shaped head. I come in many colours both solid and broken. I am a _____
3. I too am a fancy breed. I am the smallest of all the dwarf breeds. My ears are upright but very short. My head is round and my body is almost square. I am a _____
4. I am a Utility breed. My fur makes me famous, it is soft and silky with a brilliant sheen. The unique hair shaft is what gives my coat its superb sheen. I am a _____
5. I am so big most people think I am a good commercial rabbit but I’m actually a fancy. I have a massive head framed by lop ears. I can weigh 5-5.5Kg I am a _____
6. I too am a rather big fancy rabbit but not near as big as my friend above. My unique fur has given me a lot of fame. It is extremely dense, short and plush-like, in fact, my coat stands upright. I am a _____

QUESTIONNAIRE ON SELECTING STOCK

A. Before acquiring your rabbit you should know how to:

B. When choosing your first rabbit you should: (YES or NO)

1. Have a good idea of what breed you want. _____
2. Accept a free rabbit from a neighbour who doesn't want it any more, plus it's not healthy. _____
3. Buy one from a pet store, although the owners aren't sure what breed it is. _____
4. Buy from a rabbit club member who is known and reliable. _____
5. Ask the help of your club leader or another reliable rabbit breeder to help you find what you want. _____

C. What size rabbit is best for you. _____

D. What breed of rabbit interests you the most. _____

E. Is your choice a Fancy, Utility or Pet rabbit. _____

F. Name some characteristics you will keep in mind when selecting your rabbit:

G. Name three Utility breeds of rabbits. _____

H. Name three Fancy breeds of rabbits

YOUR RABBITS HEALTH

When raising rabbits your best medicine is Preventative Medicine. That means, you take away the things that could cause your rabbits problems, before they do.

YOU and **YOU ALONE** are responsible for your rabbits health. Poor feed and feeding practices and dirty cages will result in sick animals. You don't live in dirt conditions and neither should your animals. If you are not prepared to take on this responsibility for your rabbit (or any other animal), then you should look at joining one of the non- livestock projects.

To protect the herd's health keep all equipment sanitary. Remove manure, soiled bedding and contaminated feed from the hutches daily. Wash watering and feeding equipment frequently in hot soapy water. Rinse in clean water, drain well, and dry.

If you manage your rabbits well and keep a clean rabbitry, you should not have too many problems with disease. Nonetheless, it is useful to know the signs of health problems common among rabbits and be on guard at all times.

STRESS

While stress is not a disease, it is a contributing factor to many health problems among rabbits. Stress is generally defined as a pressure or strain caused by an adverse force. It may come from sources inside the rabbitry or externally. Early signs of stress are difficult to detect in the individual rabbit and may have any number of causes.

Environmental

Transporting your rabbits, changing their pens, overcrowding them or making other changes to their habitat can cause stress. Climatic changes, temperature, humidity and drafts are also factors.

Physiological

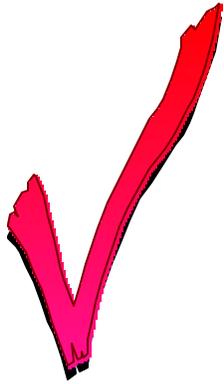
Anything which upsets the function of the body such as pregnancy, kindling, lactation, changes in diet, as well as clinical causes like illness, injury or infection can cause stress.

Inherited

Nervousness, in reaction to noise, new handlers and strangers, may be an inherited trait.

The effects of stress leave rabbits susceptible to disease. Young animals seem to tolerate and recover from stress better than older ones.

As we said before, diseases in rabbits can almost always be attributed to faulty husbandry.



Practice the following precautions for a trouble-free operation:

- C Clean cages and feeding utensils regularly.
- C Give rabbits food and drinking water that are fresh and clean.
- C Disinfect cages before restocking with healthy rabbits.
- C Keep rabbitry adequately ventilated, and the rabbit cages quiet and comfortable.
- C Make sure the rabbit houses are free of vermin (mice, rats), and cannot be entered by other animals. (Cats, dogs, raccoons, etc)
- C Isolate all newly purchased rabbits and those returning from shows, etc. for about a month.

If you suspect disease, take the following precautions immediately:

- C Whenever possible, isolate affected rabbits.
- C Clean and disinfect all infected cages.
- C Consult a knowledgeable person and give them all the details of the disease.
- C Prevent other rabbit keepers from visiting your rabbits until you get your health problems cleared up.
- C Do not take your rabbit to any club events while it is sick.
- C If you have more than one rabbit, feed and handle the sick one last and then go in the house and wash your hands.

It is important to learn to recognize the appearance and behavior of healthy rabbits . You should always be on alert for any departure from normal as this could be a sign of disease or stress. Feeding time is a good time to observe your rabbit. Also, if YOU need a little time to yourself, find a spot, sit down, take it easy and watch your rabbits. This way you will get to know how your rabbits act normally, when it's in its home and you will get a break from the world around you. It's good for your rabbit's health and it's good for yours.

WHAT IS NORMAL?

It is very important that we know how to tell when a rabbit is not well. Some of the illnesses which affect rabbits can rapidly cause death if not detected soon enough. **Early recognition** of health problems will help you treat the rabbit as soon as possible. You will be able to quickly isolate the sick animal before disease has a chance to spread to the others. Again, learning what your rabbits normal actions are and recognizing a change, is your first defense in fighting illness.

Examining the rabbit

The rabbit should be examined thoroughly from one end to the other when looking for any health problem. Do not stop at the first abnormal sign that you notice. Many diseases and disorders have **some** of the same signs. It is only after you know **all** of the signs that you can try to decide which problem you are dealing with. You will also find it helpful to record your observations on a note pad in case you need to call a veterinarian or other knowledgeable person.



First, observe the rabbit from several feet away. Watch how it is lying or sitting. Is it in its normal position? Is it moving about in its normal way? Does it appear to be in any discomfort? Is it doing any kind of repetitious movement (i.e. scratching at some area on its body, tilting its head to one side, etc.).

Move up closer and observe again. Is its respiration rate normal or does it seem fast? Listen carefully to the breathing. Do you hear normal sounds or are there water sounds like fluid in the lungs, or congested breathing like a sinus problem?

Look around the cage and on the floor beneath it. Are the droppings normal looking? Are there any signs of diarrhea? Is there leftover feed in the feeder?

Next, remove the rabbit from the cage and place it somewhere which is convenient to examine the rabbit. Beginning at the head, check the animal carefully all over.

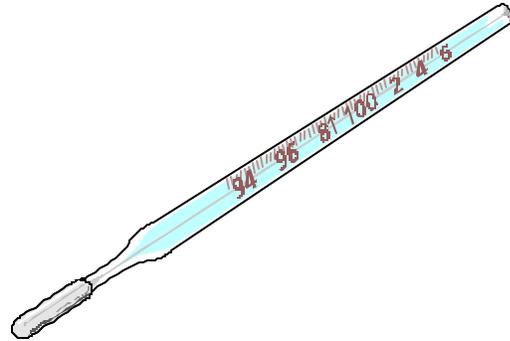
Look at the head. Are the eyes bright and shiny or are they dull and lifeless looking? Is there a discharge from the eye? Is the nose clean looking or is there abnormal nasal discharge (particularly, thick and whitish mucous like)? Is the mouth normal looking? Do the rabbit's teeth meet correctly? Are the ears in their normal position, or is one or both dropped down? Feel the base of the ear. Does the rabbit flinch when you handle the ear? Look carefully for signs of ear mites inside at the base of the ear (crusty brown discharge coating the inner surface of the ear, down where the ear joins the head).

Next, look at the **fur coat**. Are there any areas of missing hair? Are there any rashes or areas of flaked or dry skin? Are there any sores or abscesses? Does the coat feel soft and supple, like it does normally or is the skin dry, hard or tight feeling and the hair dry and lifeless?

Next look at the **feet and legs**. Check the rabbit's feet and legs. Check for missing claws which might be infected, sores on the feet and legs (particularly the hind legs), or bent or abnormal shaped legs.

Next look at the *underside*. Turn the rabbit over and examine its body. If it is a doe (one which has been nursing), check the mammary system for any signs of mastitis or congestion (hardness, redness, swelling). Check the external sex organs to be sure that there are no rashes, sores, scabs or infections.

Next, take the *temperature*. Take the rabbit's rectal temperature. A normal temperature is in the 39°C to 39.5°C range.



If you don't find any signs of disease and your rabbit still acts sick then call an experienced breeder to come and have a look at your rabbit, to see if they can see something. If they can't then you will have to consult a veterinarian for a more in-depth examination.

If you do find some signs of sickness, then check the disease and health problem charts to see if you can match them to a disease in the chart and find out what you have to do to help your rabbit. **BUT BEFORE YOU DO ANYTHING. CALL AN EXPERIENCED BREEDER** and ask them to have a look at your rabbit and give you their opinion. You might have mis-diagnosed the disease and the wrong medicine is the same as no medicine. They will know if a veterinarian will need to be consulted or if it can be looked after at home.

The following chart will help you recognize what is normal and what is not normal for a rabbit. However, you are your rabbits' best defense against disease. You will know first, when it is happy how it acts normally and when it is not feeling good. The chart will help you to start looking for the signs of sickness earlier, which will be a big help to you and your rabbit in fighting sickness.

<u>THE HEALTHY RABBIT</u>	<u>THE SICK RABBIT</u>
<p>Eyes - clear and bright Nose - clean (no discharge) Ears - clean with smooth skin inside Head - held in normal position Coat - smooth, shiny Skin - soft and supple Feet - claws unbroken, pads healthy Temperature - between 39°C to 39.5°C (rectal) Respiration - normal Droppings - normal Appetite - normal Thirst - normal Behavior - alert Movement - normal functions</p> <div data-bbox="365 1155 511 1302" style="text-align: center;"> </div>	<p>Eyes - dull, cloudy, runny Nose - nasal discharge or mucous Ears - crusty brown discharge or any other discharge. Ears - drooping (except on Lops!) Head - tilted to one side Coat - dry, dull, patchy hair Skin - dry, tight, hard Feet - claws broken, and infected, sores on feet. Temperature - above 39.5°C (rectal) Respiration - much faster or slower Droppings - diarrhea Appetite - does not touch food Thirst - does not drink or drinking all the time, laying with front feet in water dish Behavior - listless Movement - scratching at different part of the body. - signs of paralysis - twitching</p> <div data-bbox="998 1155 1161 1323" style="text-align: center;"> </div>

You have now learned how to recognize when a rabbit is not healthy or feeling well. As mentioned before, the next step is to try to find out exactly what the problem is. When you know what kind of problem the rabbit has, you can begin to treat it or choose the right steps to eliminate the cause. When you identify a disease by its signs, it is called a diagnosis.

It is not always possible to identify the problem by examining the live animal. Sometimes we do not find out that an animal has a problem until it has died. In the case of an animal being found dead without a cause, you can have a post mortem (autopsy) performed on that animal to find out what it died from. This means that the rabbit is taken to a veterinarian's office or to one of the Provincial Department of Agriculture's Veterinary Services Laboratories. The cost of this service is expensive, but the lab can often report a diagnosis within 2 or 3 days. You can then use this information to decide what action must be taken to protect the rest of your rabbits.

The following pages have a list of the most common rabbit diseases and health problems, both external and internal: their causes and treatments.

As mentioned earlier, if you do match a problem your rabbit is having to one of the ones listed on these charts, you should still check with someone more experienced to verify that you have diagnosed the problem correctly. Incorrect diagnosis and treatment could lead to the death of your rabbit!

SOME ADVICE

As mentioned at the start of this section, your rabbits good or bad health rests directly on your shoulders.

Besides keeping a clean and quiet environment for your rabbit; learning what's normal with your rabbit and learning the signs of sickness and the treatment of it, are two of the most important things you can do to raise healthy rabbits. The following has already appeared in the Selection section but it is so important that it bears repeating. **YOUR** first decisions must be the right ones.

NEVER, NEVER buy or accept a rabbit out of sympathy because it is sick or injured. **NEVER, NEVER** buy a sick or injured rabbit because its been reduced in price. **NEVER, NEVER** accept a sick or injured rabbit from a "friend of the family" because they just want to get rid of it.

If you do any of the above you will be putting yourself in a hole that you will never get out of, as long as you keep those rabbits. You have an obligation to your club mates and to yourself to raise quality healthy stock and you should **NEVER, NEVER** allow yourself to be swayed from that obligation.

Remember:

**Sick gets you sick;
Junk gets you junk;
Quality gets you quality;
Healthy gets you healthy.**

You should be aware of the most common diseases and health problems which affect rabbits so that you can watch for these. These have been broken down into categories.

EXTERNAL: SKIN, EYE AND EAR PROBLEMS

Problem or Disease	Description	Cause	Treatment
Ear mites	A brownish crusty discharge in the ear canal. Rabbit will scratch at its ears. Further bacterial infection may set in.	A tiny parasite known as an ear mite will invade the rabbit's ear canal and cause infection and irritation.	Ear mite solutions are available to treat this problem. Treatment must be repeated several times to rid a rabbit of the mites. Isolate infected rabbits.
Weepy Eyes	Eyelids become swollen and reddened. There may be clear or yellowish discharge. Eyes will weep tears which make the rabbit's fur wet around and below the eyes. Common in young rabbits which are still in the next box.	Irritants in the air such as dust, ammonia vapors (from urine), or from a bacterial or viral infection.	Eliminate cause of irritation. Eyes may be treated with an ophthalmic ointment (an ointment made especially for eyes). Do not use any type of ointment or drops not made specifically for the eyes!
Sore Hocks	Loss of hair on bottom of foot pads. Very irritated skin with thick sores which can become infected. The rabbit may be very reluctant to walk on affected feet.	Rabbits which have a thin hair covering on their feet are much more susceptible to this problem. Poor cage sanitation is also responsible. Rusted floor wire also grinds hair off foot pad.	Antibiotic ointment may help, as well as keeping cages clean and well bedded with fresh straw. It is best to cull affected rabbits as poor hair covering on the feet is a hereditary problem. New floor wire if needed.
Ringworm	Crusty, circular shaped patches which appear in areas on the rabbit's face or feet. Hair loss will occur.	Despite the name, ringworm is not caused by a worm. It is caused by a contagious fungus infection (which can be transmitted to other types of animals and to humans). Care must be taken when handling infected animals.	Treat rabbit with a fungicidal cream or lotion. Be sure to disinfect cage and feeder. NOTE: To be sure of diagnosis for this disease, you may wish to have a skin scraping taken and analyzed (a small patch of infected skin is scraped and cultured for a few days to ascertain the cause).

Skin Mange	Reddened scaly skin, intense itching and scratching with some loss of fur.	Fur mites	A good mite powder used throughout the rabbitry might work, or treatment by veterinarian may be required. Best to destroy animals and blow-torch cages.
Fungus Infection	Scaly skin over shoulders or along back. Hair thin, dandruff.	Fungus	Apply commercial fungicide or 2% solution of Lysol to affected areas every other day for 1 week.
Hutch Burn	Severe skin inflammation around the external sex organs and the anus. This may be further complicated by a bacterial infection.	Usually caused by poor sanitation of the cage. The rabbit may not have a clean, dry place to sit or lie down.	Clean out cages properly! Apply a soothing antibiotic ointment or petroleum jelly to coat the affected areas to prevent further irritation.

INTERNAL PROBLEMS

Mastitis also known as “blue bag”	Mammary system is swollen, reddened, hard, painful. Doe will go off her feed. Temperature will be very high (over 39.°C). If untreated, doe will stop milk production and litter will die.	Commonly caused by injury to udder from scratches, especially caused by slivers or rough edges of nest box, or from rough wire cage floors. Poor sanitation can also be responsible.	Doe must be treated immediately with antibiotics to prevent loss of milk production. Do not foster her young to another doe as they will spread the mastitis to the healthy doe. You may wish to cull the infected doe after her litter is raised as the problem may return after the next kindling.
Caked Breast	Breasts become firm and congested with hard knots at sides of nipples.	Milk not drawn from glands as fast as formed.	Do not wean young abruptly.
Snuffles Pasteurella Multicida	Snuffles will cause cold-like pneumonia symptoms. Running nose, sneezing, difficult respiration. Hair on front feet will be wet and matted from rubbing nose. Can cause other problems such as abscesses, weepy eyes, and internal infections.	Pasteurella multocida organism is extremely contagious and easily introduced to the rabbitry when purchasing new stock.	No effective method of treatment. Cull infected rabbits. Poor sanitation, poor ventilation, high ammonia levels and careless disease transmission practices help cause the disease!

Pneumonia	Dullness; quick labored breathing with nose held high. Bluish color to eyes and ears. Lungs congested.	Bacterial infection of the lungs.	Penicillin effective if administered early.
Wry Neck	The neck is bent to one side or twisted at an odd angle. Rabbit has a difficult time eating and cannot straighten its head and neck.	Can be an injury or many times it is caused by an inner ear infection. The balance is affected.	There is no effective treatment for wry neck.
Abscesses and Boils	Lumps occurring under skin over ribs and back, neck, dewlap, mammary glands.	Various bacteria.	May break and drain naturally. Ask vet for treatment.
Metritis	White sticky discharge from female organs. Palpation indicates enlarged uterus.	Infection of uterus by variety of bacteria.	Destroy infected does and disinfect cages. Replace bucks, as they are carriers.
Orchitis	Infection or inflammation of the testicles.	Pus-forming bacteria.	Destroy afflicted bucks. Breeding bucks with orchitis may produce metritis in does and vice versa.
Enteritis	Severe diarrhea, dehydration, death.	Can be caused by many types of bacteria and viruses. It is also very often caused by poor feeding practices.	Try to find possible reason or cause for an outbreak. Have post mortem done on dead rabbits. Isolate affected rabbits. Try feeding hay to reduce problems from enteritis. Consult with your veterinarian about possible preventative treatments.
Coccidiosis	Diarrhea, weight loss in the young rabbits even though the rabbit is eating well, a pot-bellied look even though the rest of the body is thin, sudden death in rabbits which showed no signs of illness.	Coccidia are microscopic protozoan (single celled) parasites. There are several different species. Some attack the liver and some attack the intestinal lining. They destroy digestive tract tissue and make it very difficult for the rabbit to absorb nutrients.	Prevention is the key word! Proper sanitation will help to reduce and control coccidia contamination in the environment. Almost all rabbits have coccidia and are carriers. Older rabbits are not usually affected, but young rabbits cannot survive a severe infection. Fecal samples may be taken to your local Vet Lab for analysis to check for coccidia levels. Various medications for feed or water can be used to control coccidia.



ACTIVITY IDEAS

1. Play “What’s Wrong With Me?” game at the bottom of this page.
2. Visit a local Veterinarian or have one attend your meeting to talk about rabbit health issues.
3. Have members divide into 2 groups. 1 group will discuss and draw a healthy rabbit. The other group a sick one. Come back together and compare their opinions.

What’s Wrong With Me?

<p>1. I have been scratching at my ears for a few days. I have brown, crumbly discharge in my ears. I don’t feel very happy. What’s wrong with me?</p>	<p>2. I am a nursing doe. I have a fever and don’t feel like eating. What could be wrong?</p>
<p>3. My back feet are sore. I don’t feel like walking around my cage. What could be wrong with me?</p>	<p>4. I have been sneezing all day. My front feet are all wet. I just moved to this place a couple of days ago. What could be wrong with me?</p>
<p>5. My head is bent to one side. I can’t seem to walk right and keep falling over to one side. What could be wrong?</p>	<p>6. I have a good appetite but I keep losing weight and have a pot belly. What might be wrong?</p>
<p>7. I am a young rabbit living in a nest box. I have red, swollen irritated eyes. What is my problem?</p>	<p>8. I have had digestive problems all day! My owner just changed us over to a new feed two days ago. I’m not the only one feeling sick! What could be wrong?</p>

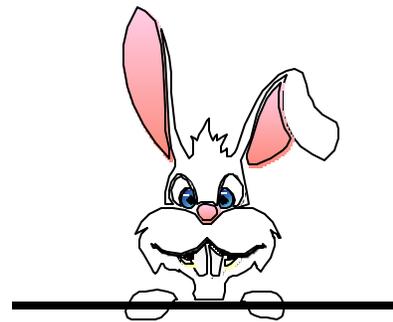
FEEDING YOUR RABBIT

Feed, whether raised at home or purchased, is your greatest cost item in raising rabbits. It is necessary for the 4-H Club member to learn the basic fundamentals of nutrition and then to study the appetite and feeding habits of each animal in order to provide the proper amount of feed at feeding time. The caged rabbit cannot forage and select its diet like the wild rabbit (hare) does. Therefore, it is dependent on you to supply it with the proper diet.

Feeding is one of the most important parts of raising rabbits. Feeding clean, commercially made pellets and having clean fresh ingredients in home-mixed rations is one of the best ways to guard against health problems. A proper diet for rabbits, as with humans, builds and maintains the body's resistance to viruses and diseases. So, *pay attention to your rabbit.*

For the best results, rations should possess:

- a) quality in each feed for maximum digestibility
- b) a combination of feeds to supply adequate protein, carbohydrates, fats, minerals, and vitamins
- c) variety, to assure provision of all required nutrients and palatability (tastes good)
- d) economical to permit profit



FOODS AND THEIR USE

Animals require food for three main purposes:

- a) to give heat and energy to the body
- b) to provide essentials for building various body tissues
- c) to supply materials for bone building

GOOD NUTRIENTS

The term “nutrient” is applied to any chemical compound (natural or man-made) or a group of compounds of the same general chemical compositions that aids in the support of animal life.

The primary food nutrients required by all animals are classified as **Carbohydrates, Fats, and Proteins**. Secondary food nutrient classes consist of **Minerals and Vitamins**. Other nutrients of much importance are **Water** and **Air**, but these are obtained primarily from sources other than feed.

Definitions of these nutrients, their uses in the body and common feeds that contain them, are given in the following notes.

Carbohydrates

These are complex substances that contain only carbon, hydrogen, and oxygen - the latter two always in the same proportion as water. Their use is to produce heat, energy and fat in the body of the animal.

Good sources of carbohydrates are oats, barley, wheat, corn, and molasses. Roughage also contain this nutrient. Common carbohydrates are starch and sugar.



Fats

These are also complex substances that contain only carbon, hydrogen and water, but the proportions of carbon and hydrogen are much greater in fats than in carbohydrates. Fats furnish 2.25 times as much heat or energy per kilogram as carbohydrates and are used in the body for these purposes.

Any amount in excess of requirements is stored as fat in the tissues.

Fat is found in small quantities in common grains such as oats, barley, and wheat, while flax seed and soybean seed are high in fat. Roughage are very low in fat content.



Proteins

The proteins are also very complex compounds, containing carbon, hydrogen, and oxygen and always containing the element “nitrogen”. Most proteins also contain sulphur and some contain phosphorus.

Proteins are necessary for growth, development of glands, muscles, hide, and hair. They are especially needed by the young growing animal for production of body tissues. The younger animal is growing at a greater rate than the older animal, thus the protein percentage in his ration must be greater.

Protein is supplied in the legume hays (alfalfa, clover), linseed meal, milk, wheat bran, oats, and pasture grasses. The legume hays and all animal by-products and are rich in protein.

Minerals

The four minerals of the greatest importance to the livestock feeder are sodium, chlorine (combined in common salt), calcium, and phosphorus. Other minerals utilized and likely to be lacking in certain localities are iron, iodine, cobalt, sulphur, and copper.

The uses of minerals are many. They aid the proper functioning of the body processes: the manufacturing of blood, digestion, muscle action and bone building. Minerals are stored in the skeleton and tissues.

Common salt is the chief source of sodium and chlorine and is usually fed in the familiar salt block. Iodized salt blocks contain iodine and are usually coloured red. Blue-coloured blocks usually contain cobalt and iodine, while yellow-coloured blocks contain sulphur only.

Calcium and phosphorus are obtained from the legume hays and green forage and considerable phosphorus is obtained from cereal grains. Bone meal is a well-known source of these minerals.

Limestone is a source of calcium and monocalcium phosphate is a chemical containing both calcium and phosphorus.

Vitamins

Vitamins are known as accessory food substances. They are identified by letters and the vitamins A, B, and D are the common ones required by the rabbit.

Vitamins find their use in the body as regulators of growth processes, assisting in digestion and helping disease prevention.

Vitamin “A” promotes health and growth. It is found in green grass, carrots, milk, well-cured legume hay, yellow corn and cod liver oil.

Vitamin “D” is known as the “Sunshine Vitamin”. Lack of it in the diet causes the one disease known as Rickets. It is very important in the rations of the growing animals and more particularly during the winter months. Milk, grasses, and well-cured hays are good sources of the “D” vitamin.

Water

All vital processes of the body demand water. It is used in the digestive processes and in the removal of wastes from the body.

KEEP PLENTY OF FRESH WATER IN FRONT OF YOUR RABBITS AT ALL TIMES. THIS IS THE CHEAPEST AND MOST ESSENTIAL FEED REQUIRED BY ANIMALS.



CLASSES OF FEEDS

Feeds can be classified into three main groups:

1. Concentrates
2. Dry Roughage
3. Succulent Feeds

1. Concentrate Feed

The concentrate feeds include farm grains, mill feeds, and manufactured supplements. They are feeds low in fibre and high in digestible nutrients. Some of the common concentrates are oats, barley, wheat, wheat bran, corn, dried beet pulp, linseed meal, fish meal, and soybean meal.

Many brands of pelleted rations are on the market. There are two types of pelleted diets: an all-grain pellet to be fed with hay, and the complete pellet. The complete pellet usually contains all the food elements necessary for a balanced diet.

2. Dry Roughage Feeds

The dry roughage feeds include such feeds as hay and straw. These are feeds which are high in fibre, but low in digestible nutrients. Large quantities of such feeds are needed to sustain animal life. Dry roughage used in rabbit feeding include alfalfa hay and clover hays (high in protein) as well as mixed hay and timothy hay (lower in protein). These hays differ considerably in their content of protein, carbohydrates, minerals, and fibre. In general, hay containing a good proportion of leafy legumes is most suitable.

For your rabbits, choose hay that is fine-stemmed, leafy, green, well-cured and free from mildew or mould. The legume hays such as alfalfa and clover make the best feed. Hay furnishes bulk or fibre in addition to nutrients. However, if you feed young growing rabbits too much bulk, they will not get enough nutrients. Also, **MAKE SURE THE HAY YOU ARE FEEDING DOES NOT HAVE ANY GOLDEN ROD IN IT ! IT IS TOXIC TO RABBITS AND WILL CAUSE DEATH!**

Young rabbits will sometimes eat so much bulk that they will have a “tummy ache” but still not eat enough of it to fatten.

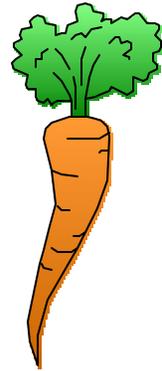
3. Succulent Feeds

By succulent feed, we mean any feeds that are fed in the green stage - green grass, leafy garden vegetables. Fresh green feeds and root crops should only be used as supplements (treats) to the concentrate part of the diet, as they contain 90% or more water.

Green grasses and leafy vegetables* such as lettuce and carrots can be fed to your rabbits. Fresh greens should be allowed to wilt before feeding them, to remove the possibility of scours. Uneaten greens should be removed daily from the cage. You will get the best results when you use variety. Under no circumstances feed cabbage to your rabbit.

Special Note

One of the most common misconceptions is that a rabbit can live on carrots, lettuce, grass, and other greens. **RABBITS DO NOT LIVE ON THESE, THEY ONLY EXIST!** Their ability to maintain their metabolism and strength is severely hampered as these foods, except for grass, contain no real nutritional value at all (humans eat them to lose weight). Grass does have some nutritional value, but the levels are not high enough to sustain a healthy rabbit and you also have the problem of getting it year round. You will find that a rabbit fed only greens and vegetables will have more than it's share of health problems, from intestinal to organs. You might also think it's cheaper to feed these instead of the complete pellet but you have to put the health and life of your rabbits over your wallet.



If you do decide to feed some grass, then you will have to be careful where you get it, especially if there are dogs and cats in your neighbourhood. These animals occasionally have worms and they and their eggs are frequently passed on. The eggs can last a long, long time in the ground and when you pull the grass sometimes the eggs come with it. Once the grass is eaten by the rabbit then the eggs have the right condition to hatch and your rabbit's problems are just beginning.

Again, the succulent or green feeds are the most dangerous feeds for your animals, **IF** you do not control the amount you give them and where you get it. The results could be fatal. ***So pay attention !***

Minerals, Vitamins, Salt

Salt is necessary in the diet. Put small blocks in the hutch so the animal can feed at will. Commercial rabbit feeds have a minimum of 0.5% salt. Of the minerals, calcium and phosphorus are the most essential. These requirements are met if a balanced ration of grain and good quality hay is fed.

Water

Rabbits need ready access to fresh, pure water at all times. In summer they require large quantities. A 4.5 - 5.5 kg doe and her eight-week old litter of seven will drink about 4.5 L of water in 24 hours. Rabbits also like to drink milk. It is especially good for nursing Does and young rabbits.

Proper Feed

Feed is the most costly, but it is also the most important part of raising rabbits successfully. When you buy your complete pellets make sure you **BUY RABBIT PELLETS THAT ARE MADE FOR RABBITS ONLY. BUY BRAND NAMES LIKE CO-OP ATLANTIC, SHUR GAIN, OR PURINA AT YOUR LOCAL FEED STORES.** The standard size bag is 25 kg. but some feed stores sell 5 Kg bags or in bulk; It is best if you buy the smaller sizes as the 25 kg bags will be stale long before one or two rabbits can finish it.

The complete pellet usually contains all the food elements necessary for a complete balanced diet. They usually run from 16% to 18% protein with a fibre content that is appropriate for the protein percentage. However, the feeds that were discussed earlier can certainly be fed to your rabbit. A small handful of hay a day will not hurt the rabbit, nor will a carrot, or a bit of lettuce, or grass. **BUT**, they must not be the only food the rabbit gets. The complete pellet must still remain the main food for the rabbit.

So, **FOR YEAR I**, it is best for the member and the rabbit that the complete pellet be used. Once you have learned how to properly care for your rabbits, then and only then, can you start to experiment with home mixed rations and others feed.



METHODS OF FEEDING

Two methods of feeding are in general practice:

1. **Managed Feeding**

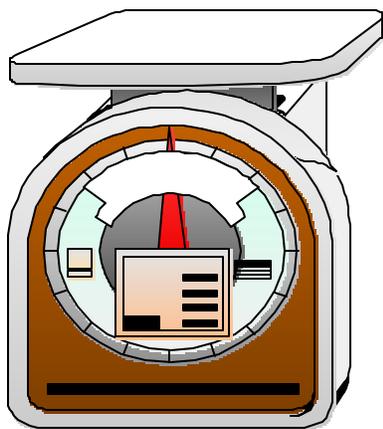
Place a measured amount of feed in feed troughs each day. This method is recommended for feeding dry Does, Bucks, and breeding stock. The rabbits daily intake is restricted. There is less chance of animals becoming overly fat. Also, as you are feeding your rabbits at least once a day you have the opportunity to inspect them as well.

2. **Full or Self-Feeding**

Full feeding is placing several days feed in the hopper at once. Animals self-feed when hungry. Self-feeding is recommended for pregnant and lactating (nursing) does as well as their litters and market animals. If feed is available at all times, they will increase their food consumption in keeping with their high energy requirements. Hoppers should be checked regularly to ensure feed supply is sufficient. Also, the amount of feed they eat is directly related to their access to water.

FEED AMOUNTS

Below you will find suggested amounts of feed to feed your rabbit at feeding time. Keep in mind that these are only suggestions and that each rabbit will have its own level of food intake. You should adjust your feeding accordingly by using some of the advice offered on adjusting feed amounts.



On average, depending on the size of the breed, rabbits require from 80g (3oz.) to 300g (10oz) of feed per day. Again these are suggestions because, like humans, each one is different when it comes to appetite and how much they will eat. Naturally the small breeds eat less and the large breeds eat more. You must also develop a routine when you feed your rabbits. Whether you feed them once a day or several times a day it should be at the same times and you will have to divide the daily ration by the number of times you feed to avoid over feeding. As a rule, medium breeds start at 100g (4oz) of feed per day; slightly less for the lightweight breeds and slightly more for the heavyweight breeds. Then start adjusting the amounts for your rabbit from there.

ADJUSTING FEED AMOUNTS

When feeding time comes around the member must really pay attention to the feeder, the rabbit and its actions.

If there is feed left in the feeder or the feed is gone and the rabbit doesn't come to the feeder when you feed then you are going to have to decrease the amount your feeding. If on the other hand, the rabbit dives at the feeder and starts biting and climbing the wire trying to get its head in the top of the feeder, then you have to increase the amount of feed. Ideally at feeding time you want your rabbit a little hungry, so that it hops over to the feeder normally and starts eating normally. When you make your feed adjustments do it a little at a time so as not to upset the rabbits' system too much.

YOUR RABBIT SHOULD HAVE PLENTY OF FRESH CLEAN WATER AT ALL TIMES

A REMINDER -

Although rabbits can exist on hay, grass and vegetables that's all they do is exist. They are constantly subject to diarrhea, bloating, and scours.

For your rabbits well being, feed it the complete pellet and use the others as a treat.

Other Treats: slice of dried bread, half a piece of rice cake, piece of apple.

CHANGING FEEDS

From time to time you may have to switch from one brand of feed to another because the present feed has become unsatisfactory for whatever reasons. (i.e. - poor quality, high price, etc.)

The proper way to change feeds is to mix the old with the new over a period of at least a week. The first day, start out with a mix of old feed 90%, new feed 10%, and each day after that reduce the old feed percentage and increase the new feed percentage accordingly until it is 100% new feed.

An instant change in feed will most likely result in the rabbits either not eating, losing condition, chewing its fur, diarrhea, etc. So avoid the instant change over.



ACTIVITY IDEAS

1. Complete the “Questionnaire on Feeding” located on page 11 of this chapter.
2. Try your hand at the Rabbit Cross Word puzzle located on page 12 of this chapter.
3. Compare the feed tags from pellets from different companies and decide what is the best for quality and price.
4. Visit a feed mill or supplier to find out how rabbit pellets and other animal feeds are made.
5. Get one of the feed tags off the bag of complete pellets and look at the ingredients listed on the tag. Then compare it to the nutrients listed previously to see what your pellets are made of.
6. “20 Questions” - Pin the name of a feed ingredient on back of each member. Then try to figure out what the name is by asking each other questions. The questions can only be answered with a yes or a no answer. Hints are okay if someone is really stuck. Continue playing until everyone figures out what they have.
7. Have a game of “Feed Trivia”. Questions and answers are located on page 13 of this chapter.

Questionnaire on Feeding

A. Which of the feeds listed below fall under:

1. Carbohydrates
2. Fats
3. Proteins

Choose your answers from this list: legume, hays, wheat, milk, flax seed, molasses, soybean seed, pasture grasses, oats, corn.

B. Which one feed from the above could fit into all three groups:

C. Which vitamin is known as the Sunshine Vitamin:

D. What one item must be kept in front of your rabbit at all times;

E. The one prepared ration that can supply almost all my rabbit's needs is:

F. A good diet for my rabbit would be:

G. List some treats you might feed sparingly to your rabbit:

H. Would you be feeding your rabbit properly if you supplied:

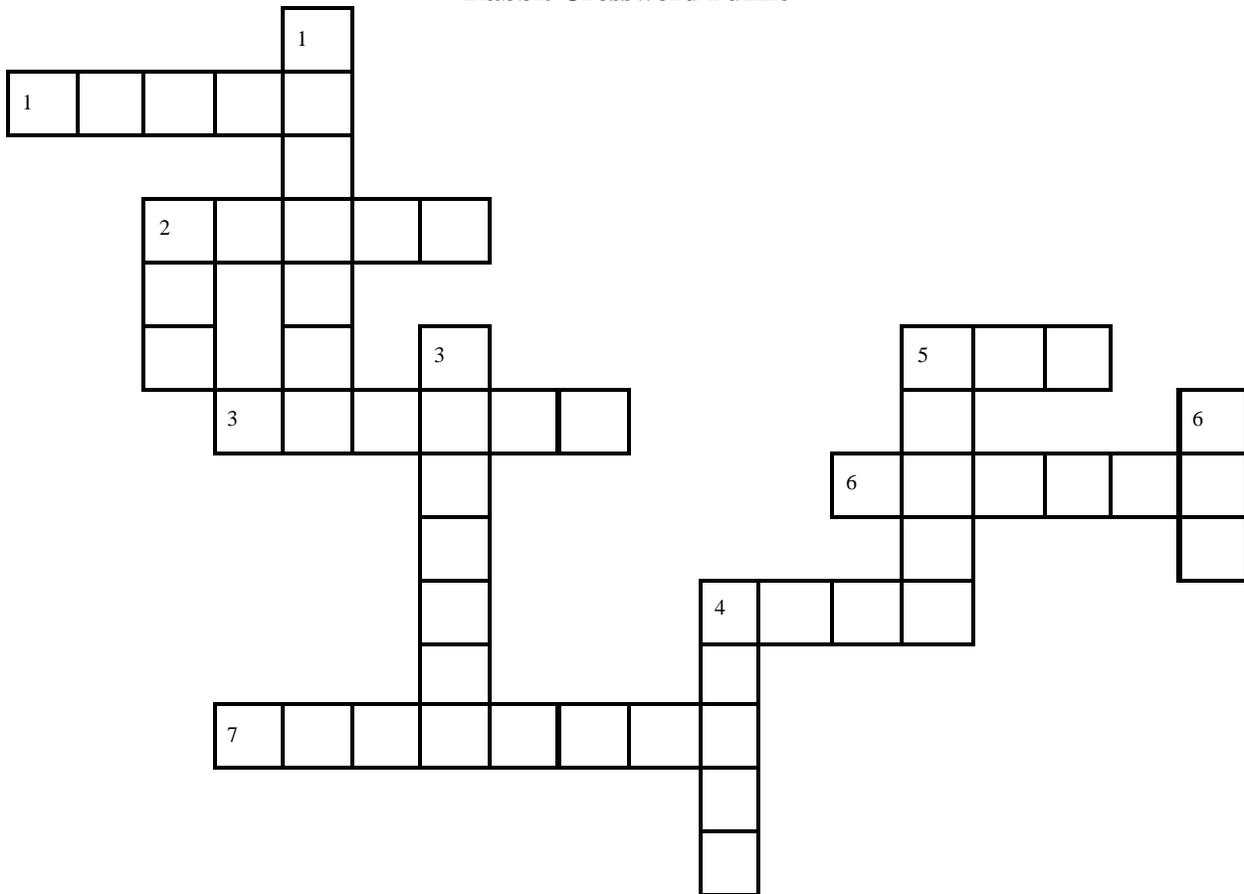
1. pellets, water and hay each day - yes or no
2. carrots, grass, oats, and water each day - yes or no

I. The best time of day for you to feed you rabbit would be:

J. What weed is toxic to your rabbit:

L. Why do animals require food:

Rabbit Crossword Puzzle



DOWN

1. Clover is rich in _____.
2. A kind of roughage feed. _____
3. Comparing one rabbit to another is called _____.
4. A race of rabbits with the same characteristics is called a _____.
5. The side of a rabbit between the ribs and hips, above the belly is called _____.
6. A female rabbit is called a _____.

ACROSS

1. Your rabbit requires _____ in its dish at all times.
2. One name used to describe a rabbit's home. _____
3. Another word for once a year. _____
4. A male rabbit is called _____.
5. The coat of the rabbit is called _____.
6. One form of identification is called a _____.
7. A word to describe rough or coarse food with fibre. _____

Words to use: fur, water, hutch, protein, breed, buck, roughage, doe, tattoo, flank, hay, annual, judging.

Feed Trivia

Questions

1. What one nutrient makes up more than 2/3 of our body material?
2. What is the name given to animals that only eat vegetation?
3. What is the name given to animals that eat only meat?
4. What nutrient is mainly responsible for cell growth in animals?
5. Animals require food for what three purposes?
6. What does the term nutrient apply to?
7. What four minerals are important to livestock development?
8. What does a proper diet help the body do?
9. What are some good sources of carbohydrates?
10. What three main groups can feeds be divided into?
11. Can rabbits be over fed?
12. To be healthy rabbits need what three things?

Answers

1. Water
2. Herbivores
3. Carnivores
4. Protein
5. To give heat and energy to the body
To provide essentials for building various body tissue
to supply materials for bone building
6. The term nutrient is applied to any chemical compound (natural or man-made) or a group of compounds of the same general chemical compositions that aids in the support of animal life.
7. Sodium, chlorine, calcium, phosphorus
8. Helps the body fight viruses and diseases
9. Oats, barley, wheat, corn, and molasses
10. Concentrates, dry roughages, and succulent feeds
11. Yes
12. Water, pellets and hay

CARE AND MANAGEMENT

Many things work together for success with rabbits. Proper selection and feeding have already been discussed and are the most important. However, many rabbits are fed liberally but do not develop, simply because of poor care and management. Care and management starts just before you buy your first rabbit and covers everything that comes **AFTER**. Proper housing, feeding, handling, sanitation, grooming, and equipment are just a few of the important ingredients in Care and Management.



HANDLING YOUR RABBIT

Each of you should learn to handle and hold your rabbit properly. Incorrect handling can cause injury to the rabbit or could cause the rabbit to scratch. Be quiet, careful, and gentle but firm, while holding the rabbit so it does not become nervous because it feels like it's going to fall or be dropped. You must also keep a firm hold of your rabbit in case it suddenly tries to get away.

Rabbits which are properly handled, frequently, usually become gentle and manageable and unlikely to scratch when picked up. You will need to handle rabbits to examine them for diseases, sores, injuries, or to move them from one hutch to another. Learn to do this so as not to injure or excite them and to keep from getting scratched. Rabbit ears are not strong enough to use as handles so **NEVER PICK UP A RABBIT BY THE EARS OR THEIR FRONT LEGS, AS YOU WILL INJURE THEM.** Rabbits are not like any other animal and should not be treated as such.

HOW TO HOLD AND CARRY YOUR RABBIT

Medium-Size Rabbits:

When preparing to lift the rabbit, turn it towards you so that the head is pointing at the shoulder opposite the hand you are going to grasp the ears and skin with (right hand / left shoulder or left hand / right shoulder). The loose skin over the shoulder should be grasped with one hand, ears clasped underneath (between the hand and skin) and the other hand placed under the rump. The rabbit is then lifted with **it's weight being supported by the hand under the rump**. After lifting the rabbit, tuck it securely under the arm of the shoulder the head was pointed at. Try to position the rabbit so that its hind feet are sticking out behind your arm and body. This keeps it from getting a toe hold on anything, if they start to struggle. Do not let go of the ear/skin held as this gives you control. If they do struggle, then apply a little more pressure on them with the arm they are tucked under.

Note: This applies to all medium size rabbits including *all* Lops

Dwarf Type or Young Rabbits

Place hand over and to the back of the loin area with the rabbit facing away from you. With your thumb on one side and index finger on the other, slide them down until your hand touches their back, right in front of (touching) their hindquarters, and then bring your thumb and index finger together to get a firm grip on them and then lift. The hindquarters **are not** to be in the grip. You can also carry these rabbits on your chest, like you would a kitten but, keep your hands on it in case it suddenly jumps.

Larger Rabbits

(a) Grasp the skin over the shoulder area with one hand. Lift hind end with the other hand to support the weight and keep the rabbit facing away from you. All four feet should be pointing away from you. It would be something like carrying a pitcher of water (one hand on handle, other hand on bottom supporting weight). **This is only good for carrying the rabbit a very short distance. (No more than 3 metres, quickly)**

-OR-

(b) Hold rabbit cradled in your arm with its head under your arm near your elbow.

-OR-

(c) Hold rabbit against your chest with a hand supporting the hind end. You might also lightly grasp the loose skin over the shoulders for extra security. This position should be used with rabbits that are rather calm and used to being picked up.

REMOVING YOUR RABBIT FROM THE CAGE

The ways detailed above to carry your rabbits are just that, ways to carry them. Getting them out of their cage is an entirely different matter.

You will find, depending on which way you try to bring them out (face first or back first), that at times they seem to have grown another 4 or 5 legs and their ears are a foot longer. You will see what we mean when you first try to get them out. There are no secrets to this. You will have to learn this on your own, but **BE VERY CAREFUL** when you are bringing them out that their toes, especially on the hind feet **do not get caught in the wire** because, you will break them. We do recommend that you try to remove the rabbit back end first, if you can.

You will eventually find the safest way that works best for you. Do remember to latch the cage door after you put them back in because, no matter how hard it is for **YOU** to get them out, for some unexplained reason they fall out quite easily on their own when the door is left open.

INSIDE THE RABBITRY

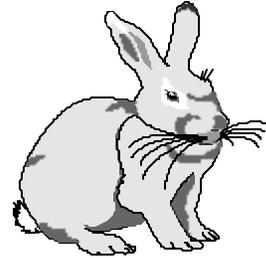
Rabbits are easily excited, so learn to enter your rabbitry and work among your rabbits without exciting them. As you approach your rabbitry, whistle, speak to your rabbits, or knock on the door/gate to let them know you are coming in. Otherwise you will excite them and they will thump and stampede. Whatever you decide to do, **do the same thing** each time so they will know it's you. In the rabbitry, move slowly, make no startling noises, and talk to them while you work. It is also best if you could have a radio playing in your rabbitry all day and night. It should be set so that **you** can just hear the words and music, but not have the walls vibrating. Needless to say Heavy Metal is a **no no** for the rabbits.

HOUSING

Elaborate and expensive housing and equipment are not necessary. Unlike most other types of livestock, rabbits are very flexible when it comes to housing. Because they are small animals, many types of buildings can be used for the rabbitry. Even the smallest farm usually has some space where one or more rabbits may be kept and whether you have 1 rabbit or 100, it is still called a rabbitry.

Rabbits can be housed in anything from an outside hutch, a small shed, a section of a garage, workshop or barn, to a specially constructed large scale rabbitry building.

Housing and feeding equipment should be easy to clean and maintain. You must protect rabbits from the snow and rain, extreme cold, excess heat, and strong wind. In planning your equipment, think of the rabbits' comfort and health and the ease in caring for them.



A WORD OF ADVICE

Although cage size is very important to the rabbit, it should be noted that bigger is not best. A cage can be too big for a rabbit. That is why it is a good idea to follow the recommended weight to area ratio when constructing or buying a cage.

At home or at a display, it's a natural reaction of the rabbit to dart from one end of its pen to the other when it is scared suddenly. This often happens when a stranger enters the rabbitry or someone makes a loud noise or sudden movement either in the rabbitry or at the display. The result is the rabbit will most times bounce off the end of its pen without injury. However, if it is in a much larger cage than recommended it will be able to reach a much higher speed which usually results in serious injury and even death when it hits the end wire. So follow the recommended cage sizes as best you can, for your rabbits safety.

NEVER place your rabbit in a smaller cage than what is recommended. It will suffer.

The height of the cages needs to be no higher than 46cm for all breeds except Checkered Giants, Flemish Giants and Giant Chinchillas, whose ears may touch the top of the cage. In their cases 60cm is recommended for height. Also, rabbits do not climb the sides of a cage to stretch like a cat does; therefore, this does not have to be considered when building your cages. If they do walk their front feet up the wire it is out of curiosity only.

The recommended weight to area guide is 900 sq. cm. of floor space for every 0.5 kg. of body weight. This recommendation is just that, a recommendation. You can build or buy any size cages you want, but remember, your rabbit and you could pay a heavy price if the wrong size cage is chosen.

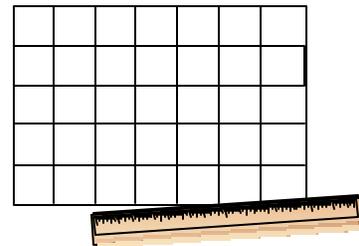
The basic recommended guidelines have been chosen because they have been found to be the best for the rabbit and you.

RECOMMENDED SIZES

The hutch is the rabbit's home. Mature rabbits are housed individually and should have about 900 square cm of floor space for each 0.5 kg of body weight. You will find below a list of common recommended cage sizes for the different breed sizes. Used as a guide, these sizes will provide a safe and comfortable home for your breed of rabbit.

DWARF BREEDS : (Netherlands Dwarf, Holland Lop, Jersey Woolly) some common cage sizes are:

45 cm x 60 cm x 38 cm h.
to
60 cm x 60 cm x 38 cm h. breeding does
38 cm x 60 cm x 38 cm h breeding buck
38 cm x 60 cm x 38 cm h for a growing young rabbit



SMALL BREEDS: (Havana, Dutch, etc.) some common cage sizes are:

45 cm x 76 cm x 38 cm h.
to
76 cm x 90 cm x 38 cm h. breeding does

45 cm x 60 cm x 38 cm h.
to
45 cm x 76 cm x 38 cm h breeding buck

45 cm x 45 cm x 38 cm h for a growing young rabbit only.

MEDIUM BREEDS: (Californians, New Zealands, Champagne D'Argente, etc.) some common sizes are:

60 cm x 90 cm x 60 cm h.
to
76 cm x 122 cm x 60 cm h. breeding does

60 cm x 76 cm x 60 cm h
to
76 cm x 90 cm x 60 cm h breeding buck

60 cm x 60 cm x 60 cm h. for growing young rabbit only

HEAVYWEIGHT BREEDS: (French Lop, Flemish Giant, Giant, Giant Chinchilla, Etc.) some common cage sizes are:

60 cm x 152 cm x 60 cm h.

to

76 cm x 214 cm x 90 cm h. breeding does

60 cm x 122 cm x 60 cm h

to

76 cm x 152 cm x 90 cm h breeding buck

60 cm x 122 cm x 60 cm h. for growing young rabbit only

If the rabbits ears touch the top of the cage, either while it is sitting upright or hopping back and forth, then you must raise the top of the cage until they don't.

NOTE:

Even with a proper cage, all rabbits benefit from exercise (especially those overweight bucks and does). Once or twice a week allow your rabbit an exercise period in a controlled space (barn floor, verandah, kitchen, etc.). Watch him at all times ! This routine is more necessary for non-breeding bucks and does - in other words, your first year rabbit. Once you begin a breeding program using your project rabbit, regular exercise won't be as necessary.

CAGE FLOORS

Several types of floors are used in hutches. Wire mesh and solid (wooden) floors.

Wire mesh floors are self cleaning, and when needed, are easily cleaned and sanitized. Solid or wooden floors are difficult and time consuming to keep clean and sanitary.

With the wire mesh floors a wire brush is basically all that is needed to brush off any dried manure that might have stuck to it. With the wooden floor you will need the wire brush plus a scraper, a scrub brush and a lot of elbow grease to remove stuck on manure.

For the larger breeds you can have solid floor in the centre of the pen with the gap around the outside of the solid area filled in with welded wire.

TYPE OF WIRE

Before we start to look at different cages and how to build them, it should be noted that all wire used in building any type of cage should be galvanized welded wire.

When building your cages you should never use poultry wire (fencing/netting) on any of your cage. Granted it is cheaper but most importantly it is weaker. By using poultry wire you are endangering the life of your animals. Due to its construction and gauge (thickness and strength) dogs, humans, owls, hawks, raccoons, and foxes can easily break through the wire and kill your rabbits. In protecting your rabbits, cheap is not the way to go.

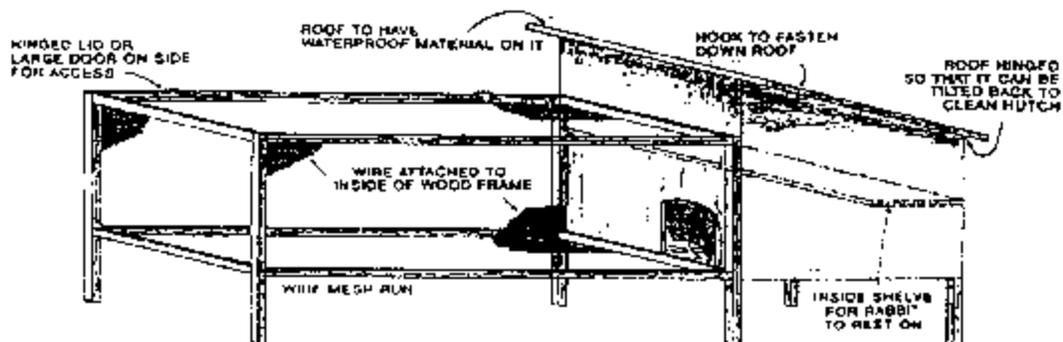
NOTE: Depending where it is manufactured, some wire material may still be in the old imperial system of inches. Here is a quick guide to convert some of the standard wire sizes available, from metric to inches.

12.5 mm = 0.5"	45 cm = 18"	183 cm = 72"
25 mm = 1"	60 cm = 24"	214 cm = 84"
10 cm = 4"	76 cm = 30"	
15 cm = 6"	90 cm = 36"	
30 cm = 12"	122 cm = 48"	
38 cm = 15"	152 cm = 60"	All figures are rounded off.

DIFFERENT IDEAS FOR HOUSING RABBITS

Small Outdoor Hutch

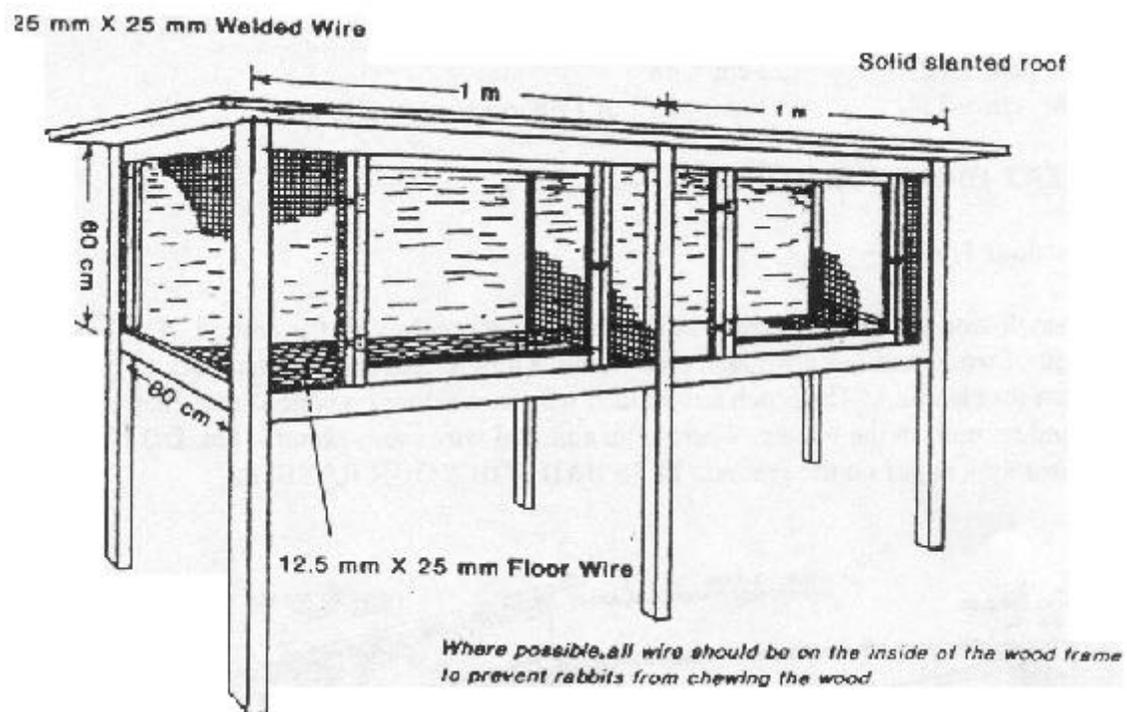
This is a small wooden hutch which is built about 60 centimetres off the ground. The hutch is constructed of wood and has a wooden roof which is hinged and can be tilted back to give access to the hutch for cleaning. The hutch has welded wire mesh floor on which straw may be used for bedding and warmth in the winter. There is an attached wire mesh exercise run. **DO NOT** place any of your rabbit cages on the ground. **IT IS BAD FOR YOUR RABBIT.**



Group of Outdoor Hutches

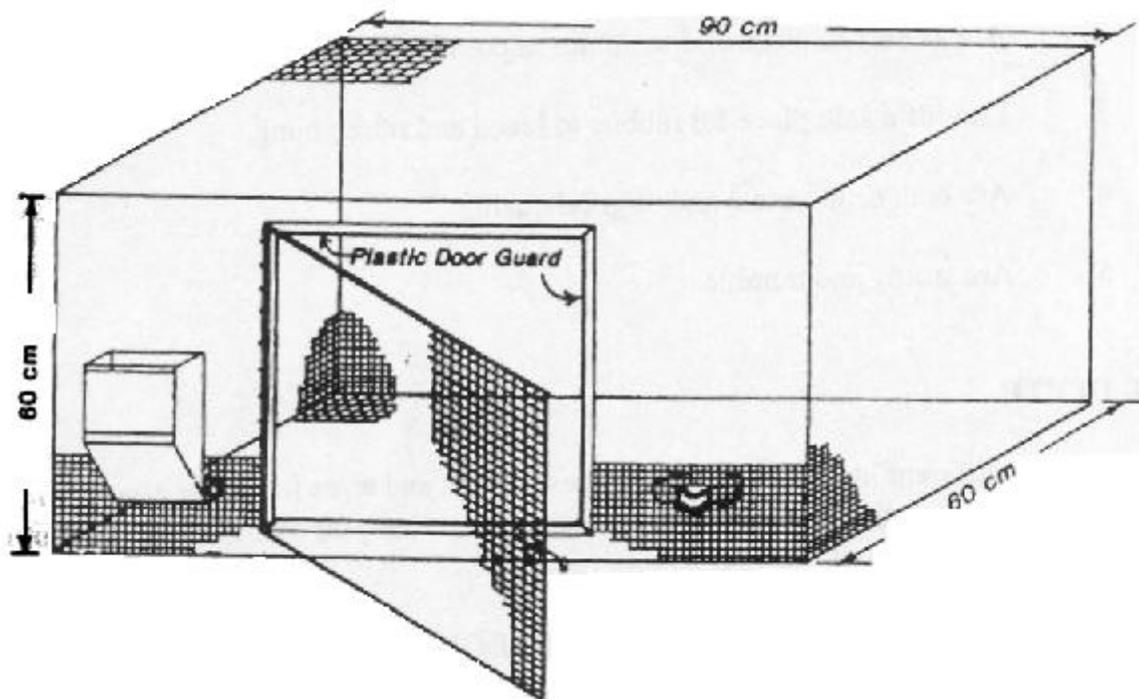
This group of outside hutches has a single roof which covers all cages and a large overhang to shelter the cage fronts from rain or snow. The cages could be 60 - 120 centimetres above the ground depending on your height. They may be made of welded wire or wood and wire. The hutch would either have a metal or wood windbreak behind the cages.

The roof could be wood with asphalt shingles, sheet tin, or corrugated fibreglass and sloped so that rain would run towards the back. An alternative to this design would be to build the hutches against the leeward side (side sheltered from the wind) of a building. The roof of the building would extend well out over the top of the hutches and should also have eaves troughing so that the runoff would not drip on top of the hutches.



All Wire Indoor Hutch

This cage is for a single rabbit. It is an all wire cage put together with “J” clips. It can be set on sawhorses with a sheet of wide plywood laid on top for the roof. You can also build a roof on 4 posts and hang the cage(s) from the rafters or ceiling joists or legs can be attached to it outside the cage using fencing staples. The all wire cage is easy to keep clean. Using this type of cage will mean that you will have to take a little more care as to where you place it because in the other examples they have protective solid walls.



These examples were just a few of the many different designs that are available. Cages are one of the most important parts of any rabbitry and whether they are outside or inside they should be user friendly. Do not build a cage that is hard to clean or is hard to get the rabbits in and out of.

Much thought should be given to the construction and arrangement of cages in the rabbitry. Rabbits suffer more from hot weather than cold so place cages in the shade for the summer and in the winter place them on the leeward side of a building and protect them from the elements. Never place them uncovered in direct sunlight.

Cages should be constructed so that they:

1. Provide the correct amount of space for the type of rabbits they will house.
2. Are as easy to clean and maintain as possible.
3. Provide a safe place for rabbits to breed and raise young.
4. Are both economical and of good quality.
5. Are sturdy and durable.

CAGE DEPTH

There are many different ideas concerning the best shapes and sizes for rabbit cages. One point that most do agree on is that **cages should not be so deep that you can't reach the rabbit if it goes to the back of the cage.**

BUILDING YOUR OWN CAGES AND OTHER EQUIPMENT

Many owners find it worthwhile to build much of their own rabbitry equipment, including cages. There are a few good reasons for this.

1. Cages may be custom built to suit the use you want them for.
2. Ready-made cages are often not available unless you can purchase them from another rabbitry owner who has made them. The same goes for the other rabbitry equipment.
3. It is more economical to buy the materials and build the cages or other equipment yourself.

You now have an idea of what size to build your cages. You probably know how many you need. You also know how you wish to arrange them in your barn. What you now need to know is:

1. What to build the cages out of. (what materials are needed, which are the best?)
2. Where to purchase the materials?
3. How to put the cages together.

Materials - What To (Or Not To) Build Your Cage Out Of
Some materials are better than others for some jobs.

Wood: Wood is **unsuitable** for rabbit cages because:

1. Rabbits love to chew on wood and other plant materials. They will chew on wooden cages. **PRESSURE-TREATED WOOD IS TOXIC (POISONOUS) TO RABBITS AND SHOULD NEVER BE USED.**
2. Wood absorbs urine and other liquid waste. This will cause rotting of the wood and will result in odours.
3. Wood cannot be properly disinfected so it is a great place for bacteria to grow.
4. If wood has to be used, it should only be used for the top and only on the two sides of the cage, never for the floor. But if you're raising Rex or one of the Giant Breeds then you will have to have part of the floor solid. Use plywood.

Wire: Welded wire mesh is much more **suitable** for a rabbit cage because:

1. Rabbits cannot damage it by chewing.
2. It is quite easy to clean up and disinfect.
3. Cages are fairly light in weight.
4. Cages allow good visibility of the rabbits inside.
5. Welded wire mesh cages are quite easy to build (14 gauge welded galvanized wire is usually used for the floor, 16 gauge for the sides and top).

Mesh spacing should be: 12.5 mm by 25 mm for the **floor**

 25 mm by 25 mm

 or

 25 mm by 50 mm for the sides/top

 12.5 mm by 25 mm Baby Saver or Kit Guard-**sides**
 (1st 4" is 12.5 mm spacing-saves new babies from falling out of cage)

Where to Purchase Materials:

While some materials may have to be ordered, many times necessary materials can be found at local hardware stores (especially those in the country) or at the feed stores. Check these sources first. Mail order livestock supply companies are also a good source for materials, although ordering cage wire may be expensive due to shipping costs. Check rabbit or other livestock and farm magazines for names of suppliers. Contact other rabbitries in your area to find out where they purchase their equipment. Watch the classified ads for used equipment for sale.

INSTRUCTIONS FOR A STANDARD SINGLE CAGE, FOR A CALIFORNIAN

SIZE - 90 cm long x 60 cm wide x 60 cm high

SUPPLIES NEEDED:

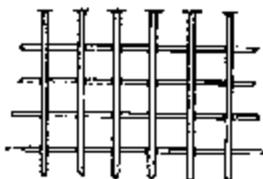
- 1 piece - 90 cm x 60 cm floor wire (12.5 mm x 25 mm mesh) (14 gauge)
- 2 pieces - 90 cm x 60 cm side wire (front & back) (25 mm x 25 mm mesh)
- 2 pieces - 60 cm x 60 cm side wire (ends)
- 1 piece - 90 cm x 60 cm side wire (top)(25 mm x 25 mm mesh)
- 1 piece - 30 cm x 38 cm side wire (door) (16 gauge)

Water cup; flat clips and pliers; feed hopper

TO ASSEMBLE:

1. Cut wire according to sizes above. **DO NOT** leave points exposed.

DON'T



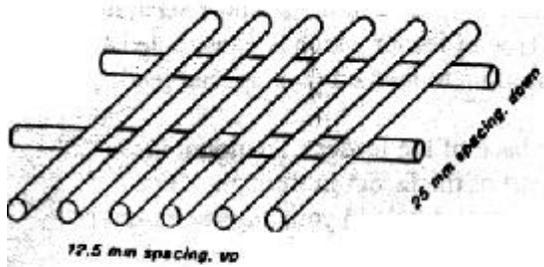
DO



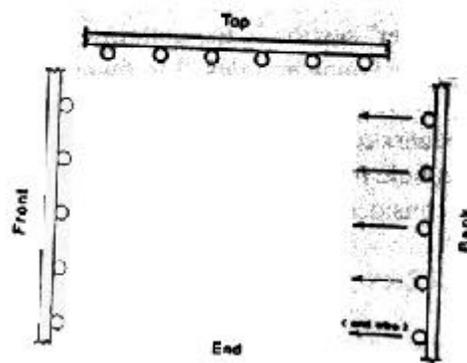
- Put wire parts together so rectangle is formed using flat clips or hog rings. Be careful that the floor wire has the 12.5 mm dividers on floor surface.

PROPER POSITION OF WIRE

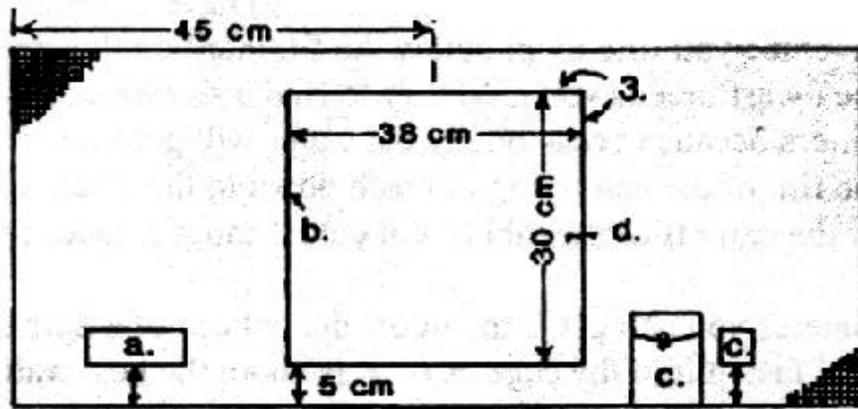
Floor wire (all cage floors)



Side, end and Top wire



- Cut opening for door in middle of long side of cage.



- Cut hole appropriate size for feed hopper.
 - Fasten wire door piece on the side with flat clips or hog rings.
 - Use purchased wire fastener for door fastener.
 - Attach water cup to front of cage with wire or cut hole in cage wall 5 cm x 5 cm, 5 cm from floor if you are using the clamshell shaped metal waterers. An inverted pop bottle is an ideal water source for a fresh and continued supply of water.

OTHER EQUIPMENT YOU WILL NEED

FEEDERS

Feeders can be as simple as heavy glass or metal containers which cannot be turned over. However these can easily become dirty and full of droppings as the rabbit moves around its cage.

Most rabbitries make use of the metal feeders which are specially made for rabbits. They mount on the outside of the cage with only the actual trough part extending into the cage. They are constructed so that they can easily be filled from the outside of the cage. They should be mounted so that they are 5cm above the cage floor. Some feeders are available with a separate “creep feeder” section in the bottom. A creep feeder is a type of feeder which is constructed so that only the young animals (3 to 6wks +/-) can get their head in, to feed on their special feed.

Most feeders come with slots to hold a record card on the back of the feeder. To mount the feeder, a hole must be cut in the cage to push the trough part of the feeder in through. Give careful consideration to where to locate the feeder before cutting a hole in your cage to mount it.

WATERERS

RABBITS, like all other livestock, MUST ALWAYS HAVE AN AMPLE SUPPLY OF CLEAN, FRESH WATER.

Waterers in small rabbitries are usually tin cans. If you are going to use tin cans then try to get the 795 ml size. They will hold a days supply of water and the rabbit can get its head down in it. You will also have to fasten it in the pen and you will also have to keep checking the inside of the can for rust spots. Once you find them below the fill mark on the can then replace them with new ones. If you raise dwarf breeds you might try to find a shorter can. Also, you will have to use shorter cans for litters because occasionally the water will get low in the can and the baby rabbits climb on to the rim of the can trying to reach down to the water and fall in head first and drown. **DO NOT** cut the can off as the rabbit will cut its tongue, face, chin, feet or throat.

About the cheapest waterer you can get is to cut off the bottom of a 2 litre pop bottle. Make it about 4 inches high and fasten it to the cage also. It is about the best waterer you can use, if your rabbits are outside in the winter time because, neither the water freezing in it or you beating it to death with a hammer, trying to beat the ice out of it, can destroy it. Only your rabbit can do that by chewing it.

You can also buy plastic and glass bottles with the nipple type waterers on the mouth of the bottle. These are hung upside down with the nipple sticking into the cage where the rabbit can lick it. Some plastic bottles have the nipple mounted on the side at the bottom and they stick into the cage also and do not need to be taken off to be refilled.

There are also metal waterers that are in the shape of a clam shell. You have to cut a hole in the side of the cage to mount it. You will also have to fasten the front of the watering trough to the floor of the cage so your rabbit can't tip it up. You can also use a 2 litre pop bottle as a reservoir for this waterer. It is hung upside down on the outside with the mouth of it in the lip of the waterer that protrudes out through the wire.

Automatic and semi-automatic watering systems are also available. These have always been used in very large rabbitries but they are also ideal for the small 1-2 cage rabbitry, especially the semi-automatic system. Fully automatic watering systems are hooked up to a water supply from the house and the water is supplied through rigid pipes or flexible hose with nipples to the rabbits either under pressure or gravity fed. With this system you will need either a pressure reducing tank or a pressure reducing valve.

It is rather expensive for a small operation. All you need with the semi-automatic system is the flexible hose with nipples and a 4.5 litre to 25 litre container that will hold water. It works on gravity feed so the container (reservoir) must be mounted above the cage. These two systems are absolutely no good for using in below freezing temperatures.

There are many different ways to supply water to your rabbits and you can choose one way or a combination of ways. However, no matter what way you choose, make sure you look after it by keeping it clean and filled and make sure it is working. Do not take anything for granted when supplying water to your rabbits.

OTHER CAGES

You are also going to need other cages for your rabbit. One is a show cage which you will use at a 4-H day display and the other is a carrying cage which you will use to transport your rabbit to and from a show and the veterinarian. Make sure that the trays are **bigger** than the cage, to allow it to sit down in the tray so all the droppings are contained.

SHOW CAGE

Size: See the Rabbit Project Newsletter of the current year for required sizes for show cages.

Use the same wire mesh as in the hutches. The floor should be raised 5 cm from bottom of side wires. Have a plastic or galvanized metal pan on bottom to collect droppings. Be sure to include waterer, feeder and door.

CARRYING CAGE

Size: 45 cm long x 30 cm wide x 30 cm high

Use same wire mesh for all sides. Use 25 mm x 12.5 mm mesh on the floor. The top should be 40 cm x 55 cm. Bend 3 edges to right angles so it covers over the walls of cage on 3 sides. Have a plastic or galvanized metal tray attached to the bottom.

Fasten the top's straight edge with hog rings or flat chips. (on the 30 cm side)

Use a purchased door clip or twist tie to fasten to shut.



Do not use a cardboard box !

SANITATION

Sanitation is very important in the rabbitry.

Webster's Ninth New Collegiate dictionary describes Sanitary as - characterized by or readily kept, in cleanliness.

To eliminate 99% of your problems with sickness and disease in your rabbitry you MUST keep it sanitary.

Rabbits are very susceptible to health problems caused by ammonia vapours and excess humidity from a build-up of manure and urine. Many types of bacteria grow in manure and can cause disease. Actual prolonged contact with manure and urine will cause skin diseases.

Rabbits breathing in ammonia vapour are very susceptible to respiratory problems. Humans can smell ammonia when it reaches 50 parts per million. A rabbit can smell it when it is 5 parts per million. So just imagine how bad it is for the rabbit if you can smell it.

Another severe problem for rabbits is humidity. This can come from urine build up, roofs that leak and keep the floor in the rabbitry wet, outside cages placed on the north side of a structure where it is damp. You can tell when the humidity is high by the smell of the ammonia, windows have condensation on them, or a green fungus will start to appear on the wooden parts of the cage. If any of this happens then its time you took action. Actually you should never allow it to get this bad. So the collection and disposal of rabbit waste is very important to your rabbit and your neighbours.

There are several methods of controlling your rabbit's waste. If your cages are inside, let it fall on the floor or into a tray or catch pail. Outside cages have the advantage of letting the waste fall to the ground and leaving it there till spring or fall. Inside cages have the disadvantage of having to have the rabbits' waste cleaned up at least twice a week.

Do not base where you put your rabbits on how often you have to clean up the waste because your rabbit outside is exposed to extreme weather changes, dogs, cats, strangers, flies, mosquitoes, and black flies. Your rabbit inside is exposed to humidity, ammonia, mice, rats, shadows, and poor ventilation. Each situation has its own advantages and disadvantages, and it is up to you where you place them.

Keep in mind that no matter what you do, you have to keep the ammonia levels around your rabbit as low as you can get them and this only happens with the proper disposal of the rabbits' waste.

WHAT TO DO WITH IT:

Rabbit manure can be used in many ways. Raising worms, composting, and as a fertilizer, added directly to the garden straight from the rabbit.

A worm pit can be constructed directly under the cages (outside and inside). Rabbit manure is the best material to raise worms in. You cannot get enough of the "garden worms" we have here, to use in the pit because, you need thousands of them. However, you can order them from a worm supplier at a surprisingly low price. Worms will turn the manure into rich growing soil which you could sell (minus the worms), or you could sell the worms to fishermen. It might give you a little extra income.

For your garden you can place the manure straight from the rabbit, right on your plants. It will not burn them. It can be used as a mulch or it can be composted in layers with other composting materials (leaves, grass clippings, shredded paper, etc.). Roses love it and it is good to add to clay type soils to help keep the soil loose.

The only problem you're going to have is if you are feeding hay or straw. You are going to get some weeds from the seed. If you are feeding pellets only, then you will not have a problem with weeds as far as the manure goes.

There are many good uses for rabbit manure and some disastrous results if it is not cleaned up properly. Again like everything else in 4-H it's up to you to do the right thing by your rabbits.

CLEAN UP PROCEDURES (recommendations)

1. Cages should be thoroughly disinfected on a regular schedule.
2. Sweep out and dispose of all accumulated droppings and urine on the barn floor at least once a day to minimize odours and keep down humidity.
3. Concrete floors should be scrubbed with a disinfectant as often as possible.
4. Clean and check the ventilation system on a regular basis to be sure that air flow is not reduced by dirt or debris.
5. Feeders and waterers should be washed regularly. Waterers should be washed in a chlorine bleach and water solution and thoroughly rinsed with clean water. Automatic watering equipment should also be flushed with a solution and thoroughly rinsed, on a regular basis.
6. Cages should be cleaned regularly and kept as clean as possible at all times !

Here are a few tips to help keep them clean:

- * If you use bedding (such as straw), soiled bedding should be removed daily and replaced with fresh bedding.
- * Cages should be brushed with a wire brush and disinfectant to remove urine and droppings regularly.
- * A mixture of vinegar and water may be used to remove calcium carbonate deposits (from urine) which build up on cage wire as a white coating.
- * Cages equipped with a manure tray under it should be swept daily and disinfected to clean.
- * Matted hair buildup (especially at moulting time) should be removed by:
 - brushing with wire brush
 - burning with propane torch
 - vacuuming

PREVENTION OF DISEASE TRANSMISSION

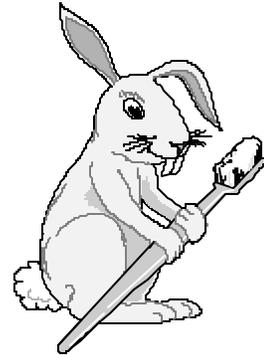
A good rabbitry operator will take several steps to prevent the transmission of contagious diseases.

These steps are:

1. **Prevent close contact between sick and healthy rabbits.** Sick rabbits should be in a separate section of the rabbitry, away from all other rabbits. If a rabbit dies, remove the dead rabbit immediately for disposal and thoroughly disinfect its cage. If possible, leave the cage unoccupied for three to four weeks. Feed sick animals last.
2. **Isolate any newly purchased animals well away from the rest of your rabbits.** Keep them separate for a few weeks (3 to 4) and watch carefully for any signs of disease. Handle these rabbits last at chore time.
3. **Isolate rabbits which have been away at shows.** If you do much showing, you may wish to keep a small rabbitry separate from the main one and keep animals which are frequently shown in this area. Look after these rabbits last.
4. **Control external parasites.** Parasites often travel from one animal on to the next. Apart from the actual parasite infestation, some parasites carry additional diseases with them as they travel from one animal to another.
5. **Control barn flies** which fly from one cage to the next, possibly spreading disease.
6. Our skin and clothing can carry diseases from one animal to the next. **Be sure that all visitors to a barn are not wearing their barn clothes from home. When visiting others' rabbitries, wear clothes which you do not wear in your barn. After visiting, change your clothes and footwear and wash well before going back into your own barn.**
7. **Do not allow dogs and cats to enter** the rabbitry as they can carry diseases from one barn to another while roaming loose.
8. **Control rodents** (mice, rats, etc.) in your barn, especially in the feed room as they also spread disease. Place your feed in covered containers (garbage can) to keep rodents out of it.

GROOMING

All rabbits whether longhaired or short need to be groomed; Angora types will need a little more grooming to remove the mats and tangles that occur from time to time. Normal furred rabbits, even Rex, need to be groomed periodically to remove dead hairs. You will also have to remove urine and hutch stain from their coats from time to time, especially if you're going to show your rabbits. If you have a couple of bucks you will probably have to remove stains from your does which were sprayed on her by both of the bucks, each trying to mark her as his territory. Toenails will have to be clipped occasionally so they won't catch the floor wire and break off plus, it will also eliminate the chances of your getting scratched.



Invite a guest speaker to help you with grooming. It's not one of the most important parts in raising rabbits but a lot of benefits are derived from it by your rabbit and you.

TATTOOING

* Tattooing is not mandatory for 4-H project rabbits - see the Rabbit Project Newsletter of the current year for details.

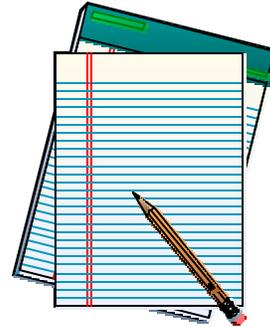
Ear numbering of livestock has been going on for a great many years. Tattooing gives the rabbit its identity or name. It is certainly the only way to keep accurate records of the rabbits' young ones when you are filling out the pedigrees. Once it is tattooed, its name will stay with it forever and you the member will always be able to tell that it's **your rabbit**.

At first thought the tattooing of a number in the rabbits ear may seem a very painful thing to do but it is not if precautions are taken by the tattooer. Alcohol to sterilize the ear, ice cubes in a baggy to freeze the ear, the quick squeeze and release of the tattoo pliers and with the application of the ink (which is not toxic) the tattooing is finished. Soon after you will notice the rabbit starting to clean its ear and will continue to do so until the excess ink is gone. Just as a precaution, you should pay attention to the tattooed ear for about 10 days, to see if it might become infected. Even though the rabbit constantly grooms itself, it is not especially choosy as to what part of its body it grooms first or in what order.

RECORDS

No matter what business you're in today, keeping records is one of the most important things that you can do. Whether you have a one rabbit rabbitry or a 100 rabbit rabbitry, you cannot progress without good record keeping.

Records are the diary of your rabbitry ; its history, how you got to where you are. If for some reason you had to give up your rabbitry for a while or something drastic happened to your rabbits, you will have records to go back to when you start again. This will allow you to follow the steps you took before, to get back to where you were before whatever happened, happened.



We can't stress enough the importance of good record keeping in good management. So make sure you fill out your record sheet, completely, as you go.



Activity Ideas

1. Complete the “Questionnaire on Care & Management”, located on pages 23 and 24 of this chapter.
2. “How Would You Do It?” Try this activity on page 25 to see if you would know what to do to get an old cage ready for use for your rabbit.
3. Make a rabbit sign to put on your cage at Exhibition, Pro Show, etc. The pattern is located on page 26 of this chapter. Leaders can decrease or enlarge the pattern and have it cut out of wood. The members can paint them the colour of their bunny or all the same colours. The rabbit’s breed, name, and name of owner can be typed on a computer and glued to the wooden rabbit with a glue stick. Then take a piece of clear mac tack, cut to fit and place on top of the paper. Tie a ribbon around the rabbit’s neck, drill a small hole on the back of the rabbit and insert a thin piece of wire. Then wire this bunny to the rabbit’s cage. The paper is easily removed and can be reused. This can take several meetings to complete.
4. Have members complete the “Caring for Your Rabbit” quiz, located on page 27 of this chapter.
5. “Housing For Rabbits” Activity:
Divide members into 4 groups. Hand each group a housing scenario and a piece of graph paper. The scenarios are on page 28 of this guide. Using the graph paper, each group should design the best type of housing for their housing scenario. To help them out members might want to refer to the information in the Members’ Manual. After an appropriate amount of time, each group should present their housing scenario and the type of housing they chose and why.

Questionnaire on Care and Management

1. What can happen if the cage is too big for your rabbit?

Too small for your rabbit?
2. Why should you never pick a rabbit up by its ears or front legs?
3. How would you pick up a large rabbit?
4. How would you pick up a dwarf or young rabbit?
5. Why is it beneficial to have a radio playing in your rabbitry?
6. Give the proper cage size for the following rabbits:
 - a. Havana adult buck
 - b. Netherlands Dwarf doe & litter
 - c. 4 month old French Lop buck
 - d. Pregnant Californian doe
 - e. New Zealand adult buck
7. What is the average height of the cage for almost all rabbits?
8. Why should you never use poultry wire to build a rabbit cage?
9. Would you place your cage directly on the ground or should it be raised off the ground?
10. Why is the wire mesh floor better than the all wood floor when building a cage?

11. True or False:

Cages should be constructed so they are:

- a. sturdy and durable
- b. a bit small for the type of rabbit they are to house
- c. expensive but poor quality
- d. easy to clean and maintain
- e. provide a safe place for rabbits to breed and raise young

a. _____ b. _____ c. _____ d. _____ e. _____

12. Why is it often better to build your own rabbit cage?

13. Name some special equipment with which you can furnish your new cage.

14. Why would you also need a show cage? Carrying cage?

15. How often should you clean your rabbit's cage?

16. What is the best way to clean feeders and waterers?

17. Why is sanitation so important in a rabbitry?

18.. Name 5 ways you can prevent disease transmission in your rabbitry?

19. Name at least one reason why you should:

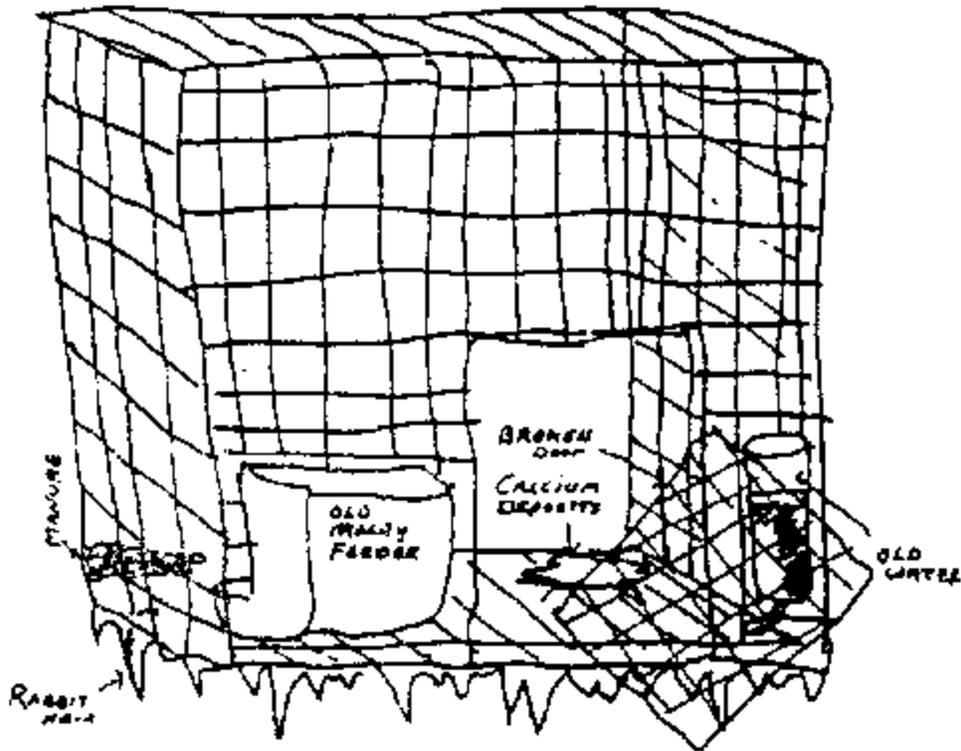
- a. groom your rabbit
- b. tattoo your rabbit
- c. keep records

20. Give a brief description of the cage your rabbit is or will be housed in. (ex. size, type of cage, extra equipment, location)

How Would You Do It ???

You want to use this cage, but look at the shape it is in! How would you get it back into shape for rabbits? Write answers in the order in which you would do each steps

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



Caring For Your Rabbit Quiz

1. Why should you brush your rabbit?
2. What can a tattoo help you find?
3. Why should your rabbit's nail be clipped often?
4. Why is it important to keep your rabbit's cage clean?
5. Name 3 breeds of rabbits that have an easy coat to keep groomed.
6. Name 3 breeds of rabbits whose coat is harder to maintain.

Quiz Answers

1. Brushing your rabbit will remove dead hair which makes your animal look and feel better. The more hair you remove during molting the less the rabbit will swallow.
2. A tattoo can help you find your rabbit or his ancestors on a rabbit pedigree.
3. Your rabbit's nails should be clipped so that you don't get scratched and so the nail doesn't break off.
4. A rabbit will stay healthier and cleaner in a clean cage.
5. Some rabbit breeds with an easy care coat are: Dutch, Netherlands Dwarf, Californian, Holland Lop, and New Zealand. Read the ARBA book for a list of other short furred breeds.
6. Some rabbit breeds that have a more difficult coat to look after are: Rex, Angora, Fuzzy Lop, and Jersey Woolly. Look up more breeds in the ARBA book

Housing Scenario

#1

You live in the town of Potterville and you have a rabbit named Peter. In the summer the weather is hot and in the winter it is very cold. You are in Grade 8 at Beatirix Public School and have just completed a wood working course.

What type of housing would you design for this rabbit?

#2

This is your lucky day! You have just won the lottery! You have decided to invest your money in a rabbit operation that will have 200 breeding does. You are living on 10 acres of land in a ranch-style house with a detached 2 -car garage. The weather in this area has hot summers and cold winters.

What type of housing would you design for these rabbits?

#3

You live on a ½ acre lot in the rural area of Squirrelville County. There are 5 children in your family and you all live in a 2 storey house with a car port. Your mother, who is a carpenter, has just given you 2 rabbits named Bertha and Ralph. The weather in Squirrelville County is hot in the summer and mild in the winter.

What type of housing would you design for these rabbits?

#4

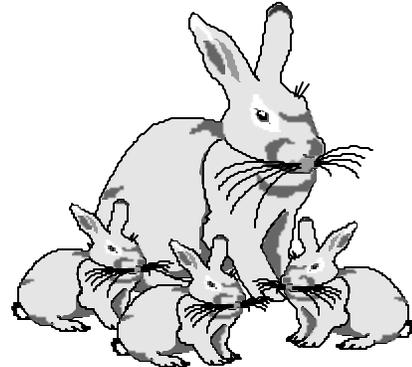
You live at Punkeydoodles Corners on a 25 acre lot with an old house and shed. You and your parents have just renovated your house. In 2 years you will be entering university and need to earn some extra money for tuition. You have decided to raise rabbits starting with 25 breeding does. Summers are very hot and winters can be extremely cold in Punkeydoodles Corners.

What type of housing would you design for these rabbits?

BREEDING RABBITS

People breed rabbits for many reasons. You might like to raise rabbits to eat, to use their wool for knitting, to sell as pets or even to use as 4-H rabbits. But remember that there are only so many homes for the rabbits you don't need. So don't breed more babies than you can find homes for.

The doe rabbit is polyestrous (no regular estrus or heat cycle). Their eggs are not shed (ovulation) at regular intervals, as with many other domestic animals, but instead ovulation is stimulated by mating. Some signs when a doe may be more willing to breed are restlessness, rubbing her chin on the cage or equipment, or a moist, slightly swollen and purplish colour vulva (female sex organ).



The actual age to start breeding rabbits depends mainly on their breed. Smaller breeds mature sexually at a faster rate, so can be used for mating at an earlier age than larger rabbits. On average, smaller breeds may be bred when the bucks and does are from 5 to 6 months old. Medium-weight breeds, such as New Zealand's, can be mated at 6 to 8 months; and giant breeds at 8 to 12 months. When breeding a doe always take her to the buck's hutch. If you take the buck to the doe's hutch, she is likely to fight him and not accept service. Plus the buck will spend his time sniffing around her cage and trying to mark everything with his scent. The gestation period, or period from mating to kindling, is usually 31 to 32 days. In some cases the doe will litter (kindle) at 29 days and some times as late as the 35th day after mating.

Test Breeding and Palpating

Time and feed can be saved by "test breeding" and by "palpating" the does to determine pregnancy. It is a good idea to test mate the doe on the 17th or 18th day. However test mating is not that accurate because some does will accept the buck even if they are pregnant and others won't accept him even if they are not. The only sure way to know is through "Palpation".

You can quickly and accurately determine pregnancy by palpating after 12 to 14 days from mating, but you must handle the does gently as palpating means feeling. A description of how to palpate a doe is described next BUT it is advisable that you not try it on your own at first. Have an experienced rabbit person demonstrate the technique on a pregnant doe at a meeting and each club member should get a chance to try it themselves, with the breeders guidance.

Hold the ears and the fold of skin over the shoulders in the right hand; place the left hand between the hind legs, slightly in front of the pelvis; place the thumb on the right side and the fingers on the left side of the abdomen; exert light pressure and move the fingers and thumb gently backward and forward. If the doe is pregnant, you should be able to distinguish the embryos as marble-shaped forms as they slip between the thumb and fingers. Handle the doe gently, and use only light pressure on the abdominal cavity.

Accurate determination of pregnancy by palpation takes practice. If you are inexperienced, repalpate does diagnosed as nonpregnant a week later. If a mistake has been made in the first palpation, the doe can be put on a full ration and provided with a nest box at the proper kindling time. With practice, you may develop enough skill to diagnose pregnancy as early as the 10th or 11th day, but that will take a lot of practice and with only raising one litter this year, it is not enough. So as they say on TV, **“don’t try this at home”**

Kindling is a critical period in a doe’s life. At this time and for a day or two afterward, the doe and young should not be disturbed except for regular feeding and watering.

Place a nest box in the hutch about 28 days after the doe is mated. This allows the doe to prepare a nest in advance and assures a proper place for birth of the young.

Sometimes does fail to pull fur to cover their litter, but all is not lost as you can pull some fur from them. For a day or two at kindling time the doe’s fur is loose and it can be plucked gently. The doe plucks her fur from her dewlap, chest, belly and along her sides. Do not yank it out and do not pluck it all from the same area. Hopefully you can get enough to line the nest with and form a layer over the top.

Some does kindle the litter on the hutch floor and let them become chilled. If you discover the young in time, you may be able to save them by warming them if they appear to be lifeless. A heating pad, set on low covered with a towel draped over the kit; under a heat lamp (at least 18 inches above kit); over furnace heat vent; or held in the hand are ways to warm the kits. No matter which way you choose do not leave the kits alone. Keep an eye on them. If you have been successful in reviving them then place them in the nest with the rest, or if you have had to pluck fur and build the nest yourself because the doe didn’t, then drive your fist into the straw at an angle making a hole and then line the nest with the fur. Place the kits in it and cover them with the fur left over. They and the doe will sort it out into a proper nest.

Does may also kill and eat their young. In a lot of cases this may be due to poor quality feed or a lack of feed. It may also result from disturbing a nervous doe during or just after kindling. Some does may be just poor mothers and come from a strain of poor mothers.

If the doe is disturbed, she may kindle on the hutch floor and the young may die from exposure. Even if predators (ie; cats, snakes, rats, weasels, minks, strange dogs)-cannot gain access to the rabbitry, they may be close enough for the doe to detect their presence, and she may be frightened and kindle prematurely. If she is disturbed after the litter is born and jumps into the nest box she may stamp with her back feet and injure or kill the newborn rabbits.

Occasionally a doe fails to produce milk. In such cases the young will starve within 2 or 3 days unless the condition is noted and the young transferred to foster mothers. Keep a close check on newborn litters for several days after birth to make sure they are being fed and cared for properly. If you happen to notice that the kits are not getting any milk you can attempt to feed them yourself. There are some home formulas breeders use, but for you the best thing to do is go to a pet store and buy the milk replacer kit for kittens. If you have a clean syringe at home you can fill that (needle removed) and gently squirt enough into their mouth that they can easily swallow and not choke on it. You can also buy a doll's baby bottle, puncture the nipple with a hot darning needle (hot needle keeps hole from closing up when needle removed) and again gently squeeze the milk into their mouth. Do not get any in their nose as this could lead to respiratory problems later if it gets in their lungs. You should wrap a face cloth around the kit and place it in your hand, on it's back (natural position for nursing) when feeding. Also when finished feeding them, wet the face cloth with luke warm water and gently wipe their genital area several times. During nursing the doe would normally lick this area. By doing this it encourages the young to urinate and defecate.

You must be prepared to feed them twice a day for 3 weeks at the start. It's right around this time that they start to nibble on solid food (bedding straw first, then pellets when they start coming out of the nest box.) At this time you may cut the feedings down to one a day when they get to be 4 weeks old and you can probably stop them at about 5 weeks. The way to tell if the kits are getting any milk at all or aren't getting enough when you're feeding them is, their bellies won't be full and round with tight smooth skin, it will be sunken in. There will be a lot of loose skin and they will bounce around in the nest box, like popcorn, when you open the nest to look in. For more problems that the doe could develop check the Health section of this manual under Internal Problems (mastitis, caked breast).



Don't worry too much about the complications that can arise during kindling. The chances there will be problems are rare but you will have to be very observant. As your number of does increase then you might see one of the above problems show up.

When Things Go Right:

Your records should show the date of mating for each doe. Three or four days before the doe is to kindle, place her nest box in the hutch. The box should be well bedded with clean straw. There are other bedding materials such as excelsior, shredded paper and shavings, but for now you should stick with straw. Just before the doe is ready to kindle she will start by jumping into the nest box and dig down in the straw. After awhile she will start packing the straw in her mouth and carry it around the cage. Then she's back in the nest box packing the straw in the nest. Then more straw in the mouth and she starts plucking fur at the same time and then back in the box. **And on it goes.**

She nurses the young and they start to rearrange the nest by pushing the soiled material out of the way to dry. The doe won't feed them again for almost a day, then she will start the routine of raising her young and they will scurry around moving dry bedding in and soiled bedding out.

Most does kindle at night and it usually takes about 20 minutes so it's doubtful you will see it happen. Just make sure that on the night you think she is due that she has food and her water dish is full of fresh clean water.

One or two days after kindling, inspect the litter. Quietly place your hand in the nest box and remove any deformed or dead young. If you are careful and quiet, the doe generally will not object. You can also give her a treat to occupy her while you're checking them out.

The smaller breeds (featherweight class) like Netherland Dwarfs, Tans and Dutch will have from 4 to 6 kits. The light-weight breeds ie; Rex, Sable and Havana's will have 6 to 8 kits. The medium and heavy weight classes; Californians, French Lops, will have 8 to 10 kits.

When the kits are born they are completely naked, no fur at all. At 3 days old their fur will come in. At 10 days old their eyes will start to open and their ears will start to come up.

In some instances the eyes will remain closed after this age because of infection. If the lids are inflamed and incrustrated, bathe them with a tepid solution of 4 percent boric acid, applied with a cotton swab. When the tissues are properly softened, you can separate the lids with slight pressure. If puss is present on following days, treat the eyes with a fresh solution of 10 percent argyrol.

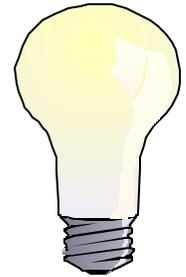
At 2-3 weeks of age you will see little furry heads peeking out of the box. At 3 to 4 weeks of age they start coming out. Usually it's the front they start to come out over first but, 3 or 4 days later, they can scale any side of the nest box either getting out or getting in. They also start eating small quantities of feed besides their mother's milk. It is best to leave the kits with the doe until they are 6 - 12 weeks old, then remove them except for 1 or 2. These will help the doe get rid of any milk that she could still be producing. The 6 - 12 weeks is based on the different sizes of breeds. The smaller ones, 6 weeks, the medium weight breeds (Californians, New Zealand) 8 - 10 weeks and the Heavy weight breeds (French Lop ,Checkered Giants) 12 weeks. The ages are only guidelines and after a while you can tell when it's time to remove them by watching your doe. She will look and act pretty disgusted with them. You have to watch your animals and learn their body language.

Try not to disturb the doe too much, other than following your regular feeding routine. You should check the young every 2 or 3 days just to see if any have died; their bellies are full and round and if the doe is using the box as her bathroom. If she is leaving her droppings in there then remove them. If she is urinating in there then remove the wet material, leaving as much of the nest intact as possible. After you cover the young back up remember what it looked like. Later look in the box to see if it has been rearranged . Chances are it will be. The doe will fluff up the fur, covering the kits, by blowing in the nest. This lifts the fur up forming a blanket of sorts that doesn't rest on the young and helps trap the warmth given off the litter. The doe will fluff up the fur. This is also a sign that the doe really cares.

You will also find at times that a doe will have more than what is normal for your breed. Sometimes it's twice as many but usually it's about 1 to 4 more. If this happens then you have a decision to make: leave them all with her with the chances some will die of starvation; cull the smallest ones (called peanuts) out yourself or if you had does, or a friend had a doe that kindled within a couple of days of each other and one had a smaller litter you may give young from the larger litter to the mother with the smaller litter. Distract the mother's attention from the nest box for a few minutes. This gives the babies time to pick up the scent of the box so the new mother will accept them. Mark the ears of the adopted young so you will know their parentage. You can mark the tiny left ear with a hypodermic needle dipped in tattoo ink and stick it gently into the inside of the ear so it punctures the skin and leaves a black dot on the ear when you remove the needle. This will not interfere later on when you tattoo the rabbit.

Cold Weather Litters

If you have to have litters during the cold months there are several things you can do to save them from the cold. You can place a heat lamp over them. Keep it at least 18" above the nest and do not heat the whole nest box, just the nest area. This allows the kits to move out of the nest area to cool down if they get too warm.



You can hang a regular light bulb (60 watt) under the nest area. The bulb should 4 - 5" below the bottom of the nest box floor. If the floor of the box is solid wood with no drain holes, then move the bulb up to about 3" from the bottom. If you are going to use this method you must put the bulb under the box, towards the back of it, at least a day before the doe is due to kindle. This will assure that the bottom is warm and it seems to draw the doe to leave the bulb at the 4 - 5" level. You can also take the nest box in the house or to a warm area and take it out in the morning and again at night so the doe can feed them. This does, however, require you to have the time to do this twice a day for at least 4 weeks without missing a day or a feeding.

All the above methods of keeping litters alive in the cold months have had great success. It's up to you to choose the one you like. You have to remember to keep checking the kits to see where they are in the nest box. If they are still in the nest and not moving around usually means that they are warm and content but, to be sure, put your hand in and feel them. Kits that are constantly moving around in the nest, trying to bury themselves under each other, are cold and you should adjust the heat source to increase the temperature. Do it gradually as you don't want to overheat them. If the kits are spread out around the nest box then the nest area is too warm and you are gradually going to have to adjust the heat down until they are back in the nest and content.

There is one more important factor that affects all of the above methods and that is the weather and fluctuating temperatures. You will have to pay attention to the kits more if the temperature is bitterly cold one day and much milder the next. This will affect the temperature in the nest. Don't start adjusting the temperature of the nest immediately, trying to match the air temperature. Watch the kits to see what their reaction is and then decide if you should do anything.

Out and About

When the litter has finally left mom they can still be kept together in one cage but depending on the size of the breed, they should be separated into their own pens as they reach 3 to 4 months old. This gives them a chance to develop without the stress of fighting, clumsy attempts at trying to mate, competing for food, or fur chewing. At the younger ages if you do see them trying to mate don't worry. Once the litter has been separated into their own pens then you can get into the routine of raising them.



ACTIVITY IDEAS

1. Visit a local rabbitry to learn about rabbit breeding, nest boxes, and how they care for newborn and young rabbits.
2. If you have considerable experience caring for rabbits, you may consider breeding rabbits and raising the young. Remember - before breeding rabbits, make sure you'll be able to find homes for the babies. You may wish to sell them (or keep them) as show rabbits, for meat, or for pets, but its very important to plan ahead! There are only so many homes for the rabbits you don't need.

SHOWMANSHIP

RABBIT SHOWMANSHIP

The main emphasis in Rabbit Showmanship is your ability to present your rabbit and yourself to your best advantage. There is a proper way of doing this which you will find as you read along further. A Rabbit that finished 2nd, 4th, or 6th in conformation class can place first with you, in showmanship, because you are being judged on your ability to present your rabbit and your knowledge.

Preparation of Animal for Showing

1. Animal must be clean. Make sure there is no stain on legs and paws. Prior to show day, clip nails if excessively long. Inside of ears should be clean - use only a slightly damp cloth to clean ears with **NO** excess water. Use a Q-tip to get deep in to the ear if you have to. Be very careful!
2. Remove all pieces of straw and shavings from belly and feet of animals
3. Animals should be well-groomed. There should be no signs of hair dressing on the Rabbit. The bloom of the hair, through proper feeding and management, will come naturally. Rubbing a damp cloth or stroking with wet hands and then drying with a cloth, towel or such, will brighten the coat.

Always rub the hair from head to tail, never the other way when cleaning the coat.

Outline and Tips for the Showmanship Class:

Be prepared to answer some questions, although the judge has the option of asking or not asking them.

A. **The Showman**

1. The dress code for rabbit showmanship is a white lab coat or white shirt and pants - (tie is optional).
2. Neatness, a well-groomed look, and cleanliness is as important to the exhibitor as to the animal.
3. Do not wear a hat.
4. Do not chew gum or candy when showing.

5. Do not speak unless spoken to by the judge or if you do not understand their instructions.
6. Be polite and courteous to the judge and others at all times. Display good sportsmanship in and out of the show area.
 7. Be prepared to answer any questions relative to your exhibit and your project when asked by the judge.
 8. Avoid unnatural positions or poise while showing your animal. Be at ease and stand naturally behind the show table.
 9. Be alert and attentive at all times.
10. The exhibitors leave the show area in the order in which they placed - first, second, etc.



B Handling of the Rabbit

1. Avoid stretching or bunching the animal when showing it off to the judge. Place the feet squarely under the animal with the legs set straight.
2. The animal should be set up properly each time after it has been moved.
3. Gentle, but firm handling of the exhibit when in the show ring is important. Do not be rough with your exhibit.
4. When you move an animal, grasp, carry and hold it properly.
5. When asked to turn your rabbit from side-to-side, place your hands on either side of the rabbit and pivot it on the table, clockwise in quarter turns.
6. Don't pet your animal in the show ring.
7. Rabbits will show much better when they are at ease. Practicing careful handling and familiarity of owners and rabbit, well in advance of the show date, will be evident by a quiet, well mannered exhibit when it is being shown.

8. Practice posing your animal as you would for show. Teach your rabbit to stay where you place it. This can only be done through repetitive training!
9. Have someone else feel your rabbit while you have it posed so that it will get used to the judge handling it.
10. Keep showing your animal at all times until the class is completed and you have left the show area.

C. **Showmanship Techniques**

1. Rabbit showmanship can be carried out using a table on which to display the animals.
2. Leave at least two feet between your animal and the next one on the table (If possible).
3. The exhibit should be brought into the show ring or be ready to be displayed promptly on the call of the ring master.
4. Keep one eye on the judge and one eye on your rabbit at all times.
5. When the judge is looking directly at your rabbit, place your hands on either side of the rabbit on the table. Never place hands behind back, because if your rabbit moves suddenly, your hands are too far away to quickly regain control of the animal.
6. When asked by the judge to change position in the line, pick up your animal and go to the correct position, moving behind the other exhibitors.
7. Extremes of “over-showing” or “grandstanding” in showmanship should be avoided and will be a mark against you.
8. Do not be distracted from showing by side noises, audience, or the exhibitor beside you.
9. Certain faults or weaknesses in an exhibit can be partly overcome by showmanship techniques. Both exhibitors and judges are aware of this. An exhibitor’s ability to overcome these weaknesses in his exhibit is considered in judging showmanship competitions.
10. When the judge asks you a question answer it with only the information the judge asked for in clear, concise and complete sentences.

Judging Rabbit Showmanship - some suggestions for the judge.

- At the beginning of the contest, tell the club members what they are expected to do.
- If coops or hutches are available, you may have each contestant take their rabbit out of the coop and place it on the judging table.
- You may have a young rabbit present and ask the members individually to tell you which sex it is.
- To avoid overstressing the rabbits, steps involving turning the rabbit over could be combined (such as showing teeth and toe nails).
- You may ask the club members questions concerning breeds of rabbits, disqualifications, parts of the rabbit, and desirable conformation characteristics.



SUGGESTED SHOWMANSHIP PROCEDURE

Upon entering the show ring, all members should place their rabbit on one of the table and do any minor last minute grooming to the rabbit and yourself. You should have done all your grooming before showmanship is called, so your time at the first table can be spent in preparing yourself mentally..

Each member is reequired to bring a piece of carpeting to show their rabbit on. This is something you should acquire when you buy your rabbit so you can use it throughout the year and remember, after each event you attend, WASH IT! Do not bring a dirty carpet to any event you attend.

Pay attention, follow instructions, answer questions in the proper manner. Say "I don't know" to questions you can't answer and you will survive your first showmanship experience.

To help you get through your first showmanship you will find below a guide for showmanship. Your best way to learn the different steps is to have a guest or guests, experienced in rabbit showmanship, come to one of your meetings at least a month before Achievement Day and go through the steps with you (don't be afraid to ask them to come back again to check upon your progress just before Achievement Day). Also, don't forget you have to display your Record book at Achievement Day too.

DERC Rabbit Showmanship Guide

I SHOWING YOUR RABBIT TO THE JUDGE (70 POINTS)

Showperson's Actions

1. Carrying your rabbit

To carry your rabbit the usual method is to grasp the fold of skin over the shoulders with your right hand while putting your left hand under the rump, to support the weight, and lift into the left arm, tucking the head under the left elbow. If the rabbit prefers the head may be left out. Also if the rabbit is small (ie. Netherland Dwarf) it may be easier to carry in both arms, in particular for smaller showmen. The most important thing is to always have control of your rabbit.

2. Posing your rabbit - Show front, rear, or side view when asked to do so.

Always pose your rabbit to its best advantage - unless specified by the judge which direction. The view chosen depends on the breed as well as good points or faults your rabbit may have. Usually the meat (or utility) breeds are posed to show off their best features.

When asked to show a different view, the easiest method is to use your hands on each side of the rabbit and turn while only slightly lifting the rabbit.

3. Showing the ears

Open the ears so that the judge can see deep into the ear. Be sure to show both ears. Turn the rabbit in the other direction to show the other ear.

Judge May Take Marks For:

Loss of control of your rabbit; No support of the body; Unruly animal; Putting the rabbit on the table before the judge asks.

Failure to pose the rabbit to its advantage; failure to straighten the tail when posing for a rear view; failure to smooth out the rabbit after moving; general difficulty in posing the rabbit or failing to pose in the view requested.

Failure to show both ears; failure to turn to the other side.

Showperson's Actions**Judge May Take Marks For:**4. Showing the eyes

You may pick the rabbit up and show the eyes, turning the rabbit to show the opposite side, or in particular with a larger animal, leave it on the table and turn to show the opposite side. Be sure the ears are not in the way (especially with lops) while showing the eyes.

Failure to show both eyes.

5. Showing the nose or checking for snuffles

Turn the rabbit over and tilt head toward the judge to show nose clearly. If checking for snuffles, also check the inside of the front feet for signs of caked mucus.

Failure to have control; failure to check front feet for signs of snuffles.

6. Showing the teeth

Turn the rabbit over and while tilting head toward judge, using thumb and index finger, gently part the lips to show the teeth. Your hand should be behind rather than in front of the mouth.

Difficulty in keeping control of the rabbit; failure to part lips to expose teeth.

7. Showing the straightness of the front legs

With the rabbit facing the judge, place your hands just behind the front legs and gently push the elbows forward to straighten out the legs, while lifting front of the rabbit slightly. You can also do this by turning the rabbit over and with your hand behind the front legs push both elbows forward causing the rabbit to straighten out the legs.

Failure to straighten the legs; loss of control of the rabbit.

Showperson's Actions**Judge May Take Marks For:**8. Showing the straightness of the hind legs

With the rear of the rabbit toward the judge and your hands just in front of the hind legs, lift the hind end slightly off the table, while at the same time push on the knee to straighten the legs out toward the judge. You can also do this by turning the rabbit over and placing your hand in front of the legs and pushing toward the back which will straighten the legs.

Failure to straighten the legs; loss of control of the rabbit.

9. Showing the toenails

Flip the rabbit over and show the toenails by pushing the thumb into the center of the paw. Push back fur with index finger if necessary to see the toenails. Don't forget to show the dewclaw on the front feet. Be sure to show all four feet unless instructed otherwise.

Failure to show the dewclaw. Failure to show the nails on all four feet. Inability to keep control of the animal or show the toenails. Seniors with overly long nails.

10. Checking the hocks

Show bottom of back feet to the judge, rubbing the fur to check for thickness of fur on the hock or for signs of soreness or bare patches.

Failure to show both hocks.

11. Checking the sex

Show the sex to the judge. Clamp tail between index and second finger; place thumb below vent area; and push toward front of rabbit. Check the testicles if a male. Return to posted position.

Failure to check sex. Incorrect identification of the sex. Failure to check the testicles on a male. Control problems.

12. Showing the tail

Turn the rabbit to have the hind end facing the judge. Straighten the tail by gently pulling upward.

Leaving the rabbit sitting on tail.

Showperson's Actions

13. Checking for ruptures and abscesses

Run your hand over the chest and abdomen area to check for any abnormal lumps. Turn the rabbit upright and run the hands over the entire body as well.

14. Checking fur quality, cleanliness, condition, and density

Stroke the fur toward the rabbit's head showing fur going back to normal position to show quality and cleanliness. Stroke rabbit from head to rear and show your clean hand to the judge to show the fur condition. Blow into the fur to show the density. On rex rabbits, pat the fur to show the density.

Judge May Take Marks For:

Failure to check the rabbit thoroughly.

Unclean, stained animal or animal in excessive moult. Animals in poor condition, animals with diseases. Not knowing the difference between quality, condition, and density.

II APPEARANCE, ACTIONS, AND KNOWLEDGE OF GENERAL RABBIT INFORMATION (30 POINTS)

Showperson's Actions

1. Appearance (10 points)

Be neat and appropriately dressed for the occasion. Be sure to check the required dress code for poultry and rabbits as listed in the front of this manual.

2. Action (10 points)

Carry out actions in a confident manner, always being considerate of your animal, fellow showpersons, and the judge. The judge should have your attention at all times so that he/she doesn't have to come to you to get your attention to move your rabbit or take some other action. Eye contact is very important. If asked to move to another position on the table, pick up your animal and move behind other showpersons. Make sure to move in the appropriate direction to allow someone else to move into a space as they were instructed.

3. Knowledge (10 points)

Be prepared to answer questions about your rabbit with reference to parts, faults, disqualifications, eliminations, breed and variety characteristics, especially of the breed you show; and general rabbit-raising information, such as diseases and cures, feeding, breeding, etc.

Judge May Take Marks For:

Unclean apparel, no footwear, chewing gum, long hair falling on rabbit, long neck tie that interferes, unsafe or unsuitable clothing, wearing a hat (with the exception of a sun-safe hat in an outdoor ring).

Unnecessary pauses or slowness, repetition of movements, routine not in order, rough handling of animals, awkward movements, failure to follow instruction, lack of eye contact.

Inability to answer questions correctly.

Questions that a Rabbit Judge may ask Junior Members**Remember:** Always show and tell the judge the answer.

1. What is the breed of your rabbit?
2. What is the sex of your rabbit?
3. What is the color of your rabbit?
4. Be able to identify every rabbit body part.
5. What type of fur does your rabbit have?
6. What are sore hocks?
7. What are abscesses?
8. Where do abscesses most commonly occur?
9. What is wry tail or screw tail?
10. What is a dewlap and where is it found?
11. What are wolf teeth or malocclusion?
12. Why do you check to see if a rabbit has a straight tail?
13. What ear should a rabbit be tattooed in?
14. How old is your rabbit?
15. What color are your rabbit's toenails?
16. How do you remove hutch stains?
17. Be able to name at least three permanent disqualifications.
18. Be able to name at least three temporary disqualifications.
19. Name a rabbit disease that could affect your bunny.
20. What is a broken coat?

Answers for Junior Questions

1. Member should know.
2. The leader can help the member tell for sure.
3. Use the ARBA book to check this out.
4. Use the activities in this manual to help you identify all the parts.
5. All types of fur are listed for each breed in the ARBA book.
6. Sore hocks are when the flesh covering the back or heel of the rabbit's back feet is cut, bloody, or the fur is totally worn away.
7. An abscess is an infection that usually looks like a small marble.
8. Abscesses are usually found on the stomach of a rabbit.
9. A wry tail is an abnormal tail, bent, carried, or twisted permanently to one side. A corkscrew tail with one or more turns.
10. A dewlap is a fold of loose skin which hangs from the throat. It is common in does. Some breeds of rabbits will be disqualified for this.
11. Teeth having the lower incisors extending in front of the upper incisors or meeting with no overlap. This condition may be hereditary and may also be known as buck teeth.
12. It could be disqualified if it didn't.
13. A rabbit is always tattooed in the left ear.
14. Member should know.
15. Look at the nails to find out. They should be all dark or all white. If the nails are dark but one is light this is a disqualification.
16. Hutch stains can be removed by mixing cornstarch with water and rubbing this mixture on the stain. When dry brush out. For light stains dry cornstarch can be brushed in. A mixture of vinegar and baking soda will also work.
17. Disqualifications are found on pages 24-26 of the ARBA book. Remember permanent means the disqualification can never be changed.
18. A temporary disqualification is one that can be changed.
19. Reread chapter 2 of this manual.
20. A broken coat is when the guard hairs are missing exposing the undercoat. This usually happens when the rabbit molts.

Questions that a Rabbit Judge may ask Senior Members

1. Name 4 items that should be found in a first aid kit for a rabbitry?
2. What is a pedigree?
3. Name 4 characteristics of a rabbit in good show condition.
4. Name 4 rabbit breeds that have compact body types.
5. Compare a fault to a disqualification.
6. What does A.R.B.A. refer to?
7. Name the 4 smallest breeds of rabbits. (Under 4 pounds)
8. Name the 3 largest breeds of rabbits (Over 10 pounds)
9. Name 4 utility breeds of rabbits.
10. Name 6 fancy breeds of rabbits.
11. What is the length of the gestation period and what does it refer to?
12. Explain pinched hindquarters.
13. What is a charlie?
14. What are the signs of ear mites?
15. When should a kit open it's eyes?
16. What is a broken coat?
17. What is palpation?
18. What are the signs of wry neck?
19. What are the signs of snuffles?
20. What is the most important factor in judging Dutch?

Answers to Senior Questions

1. Peroxide, cotton balls, eye drops, gauze, scissors, etc.
2. A pedigree is a document that lists your rabbits family tree. It usually includes breeds, colours, names, winnings and tattoo numbers for all your bunny's ancestors.
3. Read the section on looking for a healthy rabbit.
4. Included in this group are American Fuzzy Lop, Angora (English), Chinchilla (Standard), Dwarf Hotot, Dutch, Florida White, Havana, Holland Lop, Jersey Woolly, Lilac, Mini Lop, Mini Rex, Netherland Dwarf, Polish and Silver.
5. A fault is a mistake on a rabbit that would make it lose points when being judged. An example is a run in the cheek stop of a Dutch rabbit. A disqualification is when a rabbit cannot be shown at a rabbit show that day or ever because of mistake on the rabbit. An example would be a white toenail on a rabbit who has dark nails.
6. ARBA stands for the American Rabbit Breeders Association which is the book of standards that is used by 4-H in NS.
7. Netherland Dwarf, Polish, Holland Lop and the American Fuzzy Lop, Britannia Petite, Dwarf Hotot, Jersey Woolie are all rabbits that weigh less than 4 pounds as adults.
8. Checkered Giant, American Chinchilla, Giant Chinchilla, Flemish Giant, English Lop, French Lop, New Zealand are all rabbits that weigh more than 10 pounds as adults.
9. A utility rabbit is one that is bred for meat, some examples are Californian, Satin, New Zealand, French Lop, Angora (Giant), Cinnamon and Rex. Look in the ARBA book to see if you can find more.
10. A fancy rabbit is one that was bred for show or to be a pet, some examples are Netherland Dwarf, Polish, Holland Lop, Mini Rex, American Fuzzy Lop, and the Dwarf Hotot. See if you can name more.
11. The gestation period refers to how long a rabbit is pregnant before it gives birth. The gestation period for a rabbit is 31 days.
12. This is when a rabbit's hips are narrow.
13. A Charlie is an extremely lightly marked rabbit in marked breeds or broken groups; Usually having coloured ears, light eye circles, and a Charlie Chaplin mustache like marking; Usually devoid of back and side markings.
14. When you look into a rabbit's ear you will see that it is brown and crusty.
15. At 10 days old.
16. A broken coat is a rabbit that has guard hairs missing which shows the undercoat. This happens when the rabbit molts.
17. Palpation is when you feel a doe's stomach to see if she is pregnant.
18. Your rabbit will tilt his head at a funny angle.
19. Signs of Snuffles are runny eyes and nose.
20. The most important factor in judging Dutch is their markings.



ACTIVITY IDEAS

1. Have a practice showmanship class at a club meeting. Make sure everyone gets to practice the proper techniques as explained in this chapter, as well as answer a few knowledge questions.
2. Test your rabbit knowledge by trying the questions that judges may ask in a showmanship class, located at the end of this chapter. One idea would be to divide members into teams and then ask the questions. The team with the most correct answers wins.
3. Have experienced members organize and put on a showmanship clinic for the new members to teach rabbit showmanship techniques.
4. Have members put on skits to practice showmanship. Divide the group into two teams. One team plans a skit on correct showmanship, and the other on incorrect showmanship. Teams then act out their skits for each other.
5. Attend a county or regional showmanship clinic if one is being held. This gives everyone a chance to learn valuable tips on showmanship from experienced showpersons.

JUDGING

RABBIT JUDGING

What will happen:

There will be 4 rabbits used in the judging class. If at all possible they should all be from the "Fancy category or all from the Utility category, and be the same breed (New Zealand, Californian, Netherlands, Dwarf, etc). The reason we recommend this is they will all be judged for the same qualities. You'll need to know the individual breed characteristics if you're judging a fancy breed, or what meat qualities to look for if judging a utility breed, as well as the general disqualifications (example, missing toe nail) that all rabbits are subject too.

The first thing that will happen in the judging section is the judge will place a number in the rabbits' ears or on their cages - 1,2,3,4. He/she will then judge them and place them 1st, 2nd, 3rd, 4th, and write down his/her reasons. Now what you have to do is judge the rabbits and place them 1st, 2nd, 3rd, 4th, and give your reason's why you placed them that way.

The Judging Card:

NOW BROADCAST
 Department of Agriculture and Marketing
 Extension Services
 4-H SECTION

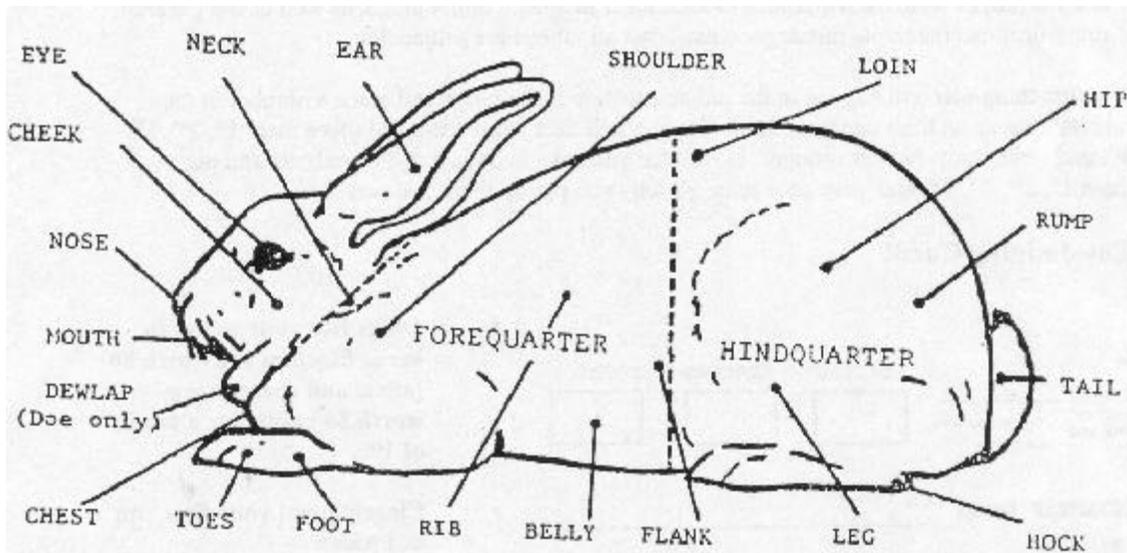
PLACING	REASONS	TOTAL

CONTESTANT'S NAME: _____
 COUNTY: _____
 AGE AS OF JANUARY 1ST: _____ Jr. _____ Sr. _____
 CLASS: _____
 PLACING: 1st _____ 2nd _____ 3rd _____ 4th _____

- < Judge fills your scores in here. Placings are worth 50 points and reasons are worth 50 points for a total of 100.
- < Clearly print your first and last name.
- < Include your club or county.
- < Place the numbers on the items in the class in the order you placed them (1st is best, 4th is poorest).

PARTS OF A RABBIT

When judging and giving reasons, it's very important to know the proper terminology for the parts of a rabbit. Take some time to learn the parts of the rabbit noted on the diagram below.



Rabbit Disqualifications

There are a variety of disqualifications to watch for when judging rabbits. Always check each rabbit in the class. If a disqualification is found, the rabbit will be placed at the bottom of the class.

Permanent Disqualifications are those which are permanent problems with the rabbit's conformation.

- < Blindness in one or both eyes, eye specks, wall eyes, unmatched eyes.
- < Buck teeth, missing teeth.
- < Droop ears (except in Lops) torn ears.
- < White or foreign patches on solid colored, marked or ticked varieties.
- < Putty nose.
- < Crooked or deformed bones - missing tail.
- < Missing toenails (including dew claw), white toe nails (except as required by standard).
- < Wry neck.
- < Orchidhism in bucks.
- < Rupture or tumor.
- < Cross-bred or mongrel animals or animals so lacking in breed characteristics so as to make their classification doubtful.

Temporary Disqualifications are those which are temporary problems with the rabbits health, classification, etc.

- < Runny eyes staining area of fur below eye or eyes.
- < Ear canker.
- < Snuffles or colds.
- < Infected hocks, boils, bad cuts, abscesses and other signs of ill health.
- < Obvious signs of trimming or attempts to mask defects.
- < Does heavy in young.
- < Wrong classification.

General Faults will not disqualify a rabbit, but will cause it to be marked down.

- < Sore eyes.
- < Weak or improper ear carriage.
- < Stray white or foreign coloured hairs, mealiness or ticking on solid coloured varieties.
- < Poorly developed loin and hindquarter on meat breeds.
- < Poor example of breed.
- < Cow hocks.
- < Excessive masculinity in females - excessive femininity in males.
- < Hutch stains.
- < Poor show-table manners.

Giving Reasons

Following the judging and placing of a class, you must be prepared to give reasons to justify your placing. You must always be willing to give a set of reasons for any placing you make and therefore, should not make a placing unless you can back it up with sound reasons. Whether the reasons be oral or written, they should be reasonably brief but accurate, paying attention to the obvious points of difference.

Unless there is something of general interest to the entire class, consider only two animals at a time - compare rather than describe the two different animals. Give your reasons for each pair of the two animals, starting with your top pair - the two you consider first and second. Then give reasons for the middle pair, i.e. - second and third animals, and finish judging by comparing the third and fourth animals. Fabrication of reasons must also be avoided. For example, do not make up reasons just for the sake of sounding good. A good judge knows what each animal looks like and the faults or good points of each animal, and therefore, he will know if reasons have been fabricated.

When giving reasons orally do not use notes but rather try to remember or picture the class in your “mind’s eye” or memory. Try to train yourself to give a set of reasons in two minutes or less. Using this system will make it much easier to give an understandable set of comparative reasons. Begin your reasons when the judge tells you to and look directly at him while speaking. Announce your placings and compare the animals pair by pair and end in a definite conclusion. Be as calm and confident as possible, speaking in a natural tone and stand or sit easily.

When giving reasons, keep the following in mind:

- < Speaking with confidence tells the judge you believe in what you are saying and that you have sound reasons for your placings.
- < Stand or sit with good posture and look the judge in the eye. Relax using gestures and a natural voice, loud enough to be understood but not too loudly.
- < Do not chew gum or wear a hat unless for sun protection.
- < Use correct terminology and grammar.
- < Organize your reasons in a logical order. Begin with obvious differences and then mention the less obvious points.
- < Use comparisons to tell why one item is placed higher than another. Use comparative terms when giving reasons. Words like bigger, brighter, taller, straighter, and phrases like “more than” and “less than” ensure comparisons are made.
- < Give accurate reasons, do not give ones that do not apply. You will be penalized for using wrong information.

SAMPLE REASONS

As a reference to establishing a more uniform pattern in giving either written or oral reasons when judging rabbits, study the reasons given below:

Utility Class

1 place this class of Utility Rabbit - 2,1,3,4

I place #2 at the top of the class and over #1 because he carries a deep, firm, flesh covering over the hind quarters. He also has more uniform width from front to rear, carrying out wide in the back loin and hind quarters.

I place #1 over #3 because he is stronger in the back than #3. He also has a smoother flesh covering and more finish over the loin than #3. I will grant, however, that #3 is a somewhat larger animal than #1.

I place #3 over #4. This is a very easy placing because #3 is not only a much larger animal than #4, with considerably greater length of body and width of back, but also has well-developed hind quarters.

I place #4 at the bottom of the class because he lacks finish. #4 is also short, a narrow-bodied animal. It is however very bright and alert and would therefore be a good pet rabbit.

For these reasons, I place this class of Utility Rabbits - 2,1,3,4



ACTIVITY IDEAS

1. Have a practice judging class. Obtain four rabbits of the same breed and have members judge the class and give reasons. Judging cards are available from your 4-H office.
2. Attend a county or regional judging clinic if one is being held. This is an excellent chance to learn tips on judging different types of rabbits, and gives you a chance to practice giving reasons too!
3. Have senior members organize and put on a judging clinic to show junior members how to judge.

GLOSSARY

The following is a list of some of the rabbit words or terms, and their meaning, that you will hear and use as long as you are raising rabbits.

AGOUTI - As applied to color, a hair shaft possessing several bands of color, usually slate blue as base, alternating with two or more light and dark rings, then lighter. i.e. Chinchilla, Steel or Grey Flemish.

ARTIFICIAL INSEMINATION - Artificial introduction of semen into the generative tract of the female.

BACK - In general, the entire hind portion of the animal above the shoulders, belly, and hips extending from neck to tail. The area covered by the backbone and vertebrae.

BALANCED RATION- A diet consisting of a proper proportion of individual ingredients to provide for growth, production for reproduction.

BARE SPOTS- A section of the animal entirely without fur.

BELL EARS - Ears which have large tips with distinct fall or lop at the ends.

BELLY - The lower part of the body containing the intestines - the abdomen.

BOIL OR ABSCESS - A hard swelling or isolated collection of pus or purulent matter occurring in the rabbit's skin, accompanied by localized fever and heat.

BOW LEGS -applied to both fore and hind legs. Curved outwardly in the middle at the knee joint. (Bow legged)

BREED -A race of domestic rabbits which reproduce distinctive characteristics of fur color, marking and textures, shape, size, and growth. A breed may be subdivided into varieties. For example, the Black, Blue and Tortoise varieties of the Dutch Breed.

BREEDER - One who breeds or rears rabbits, either purebred, pet, etc.

BREEDING CERTIFICATE - A written certificate by the owner of a stud buck, showing the pedigree in full and the date of breeding to a particular doe and a history of the bucks past successes in breeding (does bred to, number of young produced) given for the purpose of making proof of the buck's capabilities.

BROKEN EAR - A distinct break in the cartilage which prevents erect ear carriage.

BUCK - A normal male rabbit.

BULL DOG - As applied to head: a short, board, bold head of pronounced masculine appearance.

CAKED TEATS or CAKED UDDER - Inflamed and feverish condition of the teats arising from super-abundant milk supply in a doe rabbit. Easily noted by the teats being distended and filled with hardened milk.

CANNIBALISM - Doe eating her own young.

CARRIAGE - The mode in which a rabbit bears itself: the style or station of the animal.

CHEEK - The sides of the face from the eyes to the mouth.

CHEST - The front portion of the body between the forelegs and neck, the breast and throat.

CHOPPED OFF - As applied to type - having the back and hindquarters cut off abruptly and falling vertically to the tail.

COBBY - Stout and stocky: short-legged and short-coupled.

COLD - A slight attack of nasal inflammation or milk influenza in rabbits, characterized by sneezing, a thin watery nasal discharge and slightly matted fur on the inside of the front feet.

CONDITION - The physical state of a rabbit in reference to health, cleanliness, texture and molt of fur and grooming.

COPROPHAGY - Practice of a rabbit consuming some of the droppings (soft night feces) direct from its anus.

COW HOCKED - On rear feet, hock joints touching and toes pointing in different directions.

DEAD HAIRS - Similar in appearance to rusty hairs produced (colored varieties) by moulting.

DEVELOPING PERIOD - Rearing period from weaning until production begins.

DEWLAP - A pendulous fold or folds of loose skin hanging from the throat of Does.

DISQUALIFICATIONS - One or more defects, deformities or blemishes which renders a rabbit unfit to win an award in competition or incapacitates it from taking part in an exhibition.

DOE - An unsprayed female rabbit.

DOE and LITTER - A female rabbit with suckling young.

DOMINANT - Referring to genes or characteristics of one parent (color of fur, etc.) , that when transmitted to the offspring, covers up the subordinate or recessive characteristics. (Genes)

DRESS OUT PERCENTAGE - Carcass weight divided by live-weight times 100. Dress out percentage is the percent of weight left after dress out, compared to the live-weight before dress out.

EARCANKER - An inflamed (swollen) scabby condition of the lower inner ear of rabbits, caused by colonies of rabbit ear-mites.

EAR LACING - A black or dark-colored line of fur outlining the sides and tips of the ear.

ESTRUS CYCLE - The recurring 14 to 16 day cycle when the doe is more apt to conceive.

FALSE or "PSEUDO" PREGNANCY - A 17 day period during which the doe cannot conceive. This may be caused by a sterile mating or by other sexual stimulation.

FINISH - Desired condition of flesh and/or coat for market or show rabbits.

FLABBY -The condition of a rabbit when the flesh or fur hangs loosely on the animal by its own weight - not trim and shapely.

FLANK - The sides of the rabbit between the ribs and hips, above the belly.

FOOT - The final part of the leg, including the toes.

FOREHEAD - The front part of the head between the eyes and base of ears.

FOREIGN COLOR - As applied to rabbits, any color fur, eyes, or nails differing from the prescribed standard of perfection for the breed and variety in question.

FOSTERING - Use of a Doe, other than the dam to nurse the young.

GESTATION - Period to time (28-32 days) from mating of the Doe to kindling.

GLOSSY - The reflected luster of brightness from naturally healthy normal fur in rabbits.

GUARD HAIRS - The longer, stiffer hairs in the pelage or fur of a rabbit easily noted upon blowing into the fur. Usually of different color than the under wool, except in self breeds.

HERD - Term used to describe a large assembly of rabbits.

HEREDITY - Characteristics inherited from ancestors.

HINDQUARTERS. The after portion or posterior section of the body, composed of loins, hips hind legs, and rump.

HIP - The thigh joint and large muscular first joint of the hind leg.

HOCK - The bottom of the foot.

HUMP BACK - As applied to type - having a hump or protuberance on the back marring a gracefully arched outline.

HYBRID - The offspring of parents of different breeds, varieties, species, or genera.

INBREEDING - Mating closely-related animals (brother to sister)

INNER EAR - The concave portion of the ear.

KINDLE - To give birth to young rabbits.

KNEE - the second joint of the leg, connecting the thigh and leg.

KNOCK-KNEED - See spraddled.

LACTATION - The secretion and yielding of milk by the mammary glands.

LAPAN - A castrated male rabbit.

LITTER - A doe's offspring.

LOIN - That portion of the back on either side between the hips and saddle.

LOPPED EAR - Pendulous; not carried erect; falling to the side or front.

LUSTER - Brightness and brilliance of fur.

MALOCCLUSION - A deviation from the proper closing or meeting of the teeth.

MANDOLIN - As applied to type, having the appearance of the body of a mandolin laid face down, back and saddle arching toward the loin to make noticeably large and broad hindquarters.

MASSIVE - As applied to type, bulky and heavy, ponderous, large, and compact.

MATTED - Small or large tangled or knotted bunches of fur.(as seen on Angora type wool)

MEALY - Having the appearance of being powdered or sprinkled with meal. (Flecked)

MEATY - The quality of having a good proportion of meat to bone, size and type of the rabbit; a noticeable meatiness (full and firm) at the forequarters, back, saddle, loin, and hindquarters.

MOLT (MOLT) - The act or process of shedding, or changing the fur, usually three times yearly. The baby or nest fur is moulted at 2 months, and the first natural coat of fur is fully developed at 4 to 6 months.

MUZZLE - The projecting portion of the head surrounding the mouth , nose, and lower jaw.

NECK - The part of the animal connecting the head and body.

NOSTRILS - The two openings of the nose leading into the head.

OFF-COLORED - Applied to several hairs or patches of fur foreign to the standard color of the animal. Having a lighter or darker shade of the desired color described in the standard of perfection.

PAIR - A male and female rabbit of one variety.

PALPATE - To feel for developing young in the uterus through the abdominal wall.

PARASITES - Internal (tapeworms, etc.) Or external (mites, etc.) Organisms which live in or on the host rabbit, at whose expense it obtains food, shelter, etc.

PATCHES - a small section of colored fur, foreign to the color standard of the animal such as white spots on the fur of Black Satins.

PAUNCH - The prominent portion of the abdomen.

PELAGE - The fur coat or covering of an animal, as in rabbits.

PEPPER and SALT - A flat, unattractive appearance of black and white ticking, as in chinchillas. Caused by lack of contrast and waviness, and in ticking and weakness of color in the tips of guard hairs.

PINCHED - When viewed from above the hindquarter form a broad "V" where they should be rounded.

POOR COAT - Fur not in good condition through moulting, rust or ill-health of the animal. Also caused by inattention to grooming.

POSING - Placing the rabbit in its most advantageous posture for show.

POT BELLY - A distended condition of the stomach and intestines caused by improper food, usually found in young rabbits.

PUREBRED - A recognized breed kept pure for generations.

RACY - As applied to type - slim, trim, alert, and active. Slender in body and legs. Harelike.

RANDOM MATING - Mating within a selected group with no attention paid to a definite mating system.

RECESSIVE - Referring to genes or characteristics of one parent (wooly, yellow fat, etc.) That when transmitted to offspring is concealed by the dominant characteristics (genes) of the other parent.

REGISTRATION - the official recording of a rabbit that has been approved by a licenced registrar.

RIBS - The curved portion of the sides immediately back of the shoulders above the belly.

ROUGHAGE - Hay, grass, etc.

RUMP - The hind portion of the back and backbone.

RUST - A reddish-brown coloration of fur, usually appearing on the sides, flanks or feet of rabbits having the appearance of iron rust and being foreign to the standard color. Rust usually appears in colored varieties may be caused by fading through over-exposure to sunlight or dead hairs about to molt.

SADDLE - The rounded, intermediate portion of the back between shoulder and loin.

SELF or SELF-COLORED - animals that have the same colored fur over the entire head, legs, and body and tail. Solid-colored.

SEXING - Determining the sex of a rabbit.

SHEEN - As applied to Satin fur only. The luster of brightness given to Satin fur as light passes through the Satin guard hairs. Absence of sheen in a Satin is a disqualification.

SHOULDER - the uppermost joint of the foreleg, connecting it with the body.

SLOBBERS - Indigestion or gastritis, usually found in young rabbits, caused by improper feeding. Indicated by drooling mouth and wet fur on lower jaw and forelegs. Not contagious.

SNIPEY - As applied to head - Narrow and elongated, with an appearance of undue leanness.

SNUFFLES - A virulent contagious infection of the nasal passage and respiratory organs, usually terminating in chronic illness. Indicated by fever, heavy breathing, sneezing, and discharge of thick creamy nasal pus from nostrils.

SOLID COLOR (SELF COLOR) - The same color uniformity over the entire animal.

SORE HOCKS - An ulcerated condition of the foot-pads or soles of either front or hind feet of the rabbit.

SPRADDLED - As applied to forefeet. Bowed outwardly when viewed from the front; knock-kneed. As applied to hind-feet-not set parallel with the body; turned outwardly from the hock-joint.

SQUATTY - As applied to forefeet. Not straight in bone, broken down or bowed inwardly.

STANDARD - The characteristics for a breed of rabbits as set up and approved by a registering organization.

STATION - Ideal manner of standing or carriage in conformity with standard position or pose.

STOCKY - compact, stout, and cobby.

STRAIN - Rabbits in any standard breed of the same family blood having the quality of reproducing marked characteristics.

STRINGY - The quality of having ropy or sinewy flesh - noticeably in the larger breed of rabbits if not properly fattened for market.

SWAY-BACK - As applied to type. Having a distinct fall or scoop in that portion of the back between the shoulder and hindquarter, as distinguished from gradually arching back.

SYMMETRY - As applied to types of rabbits - The quality possessing a harmonious proportion of head, ears, legs, and body structure conforming to the standard type of breed represented.

TAIL CARRIAGE - The way in which a rabbit carried the tail. Pool tail carriage is denoted in the tail being carried to one side or the other instead of correctly.

TATTOO - To make a permanent identification mark in the ear of a rabbit through use of a perforating instrument and rubbing India ink into the perforation.

TICKING - A waxy distribution of guard hairs throughout the fur of a color distinct from the under-wool or body fur. Such ticking is usually produced by black-tipped guard hairs, as in Chinchillas, Flemish Giants, and Belgian Hares which add greatly to the beauty of the fur. It may occur in other colors, such as blue ticking in Blue Squirrels or black-tipped fawn hairs in New Zealand Reds.

TUCKED-UP - As applied to type, the trim appearance of a Belgian Hare, with long rounded body and breast and belly gathered in closely to form an arch when the animal is in a sitting position.

TYPICAL - Serving as an ideal representation of any given breed or variety as applied to type, color or fur quality.

UNDER-CUT - As applied to the hindquarters. When the hand is run over the hindquarters and down to the tail, if the hand goes in under the hindquarter to the tail and not straight down then it is under-cut.

UNDER-COAT - The shorter, softer body fur in the pelage of the rabbit, readily distinguished from the longer guard hairs. It should be thick as described in the standard.

VARIETY - As applied to rabbit - A different or another color in a breed.

VENT DISEASES - Venereal diseases in rabbits of both sexes. Indicated by scabby, reddened, male or female organs, usually exuding pus.

WALL EYES (MOON EYES) - Having a milky film over the cornea or appearance similar to a moonstone.

WOLF TEETH - Protruding or elongated teeth in either the upper or lower jaw (or both) caused by breakage of the teeth opposite.

WRY-TAIL - Abnormally bent, curled or twisted permanently to one side; a corkscrew tail with one or more turns. (Screw tail)