the next few days the doe should not be unnecessarily excited, and the kits checked periodically to insure the doe is feeding them properly. Immediately after kindling, the does feed ration should be only about $\frac{1}{2}$ of her normal Do not get concerned if the doe is not nursing the kits. She will normally nurse them only once per day, and this usually occurs at night. As long as the kits do not look fried up or dehydrated when they are checked, the doe is properly feeding them.

WEANING AND RAISING THE YOUNG

At about 10 days of age the kits will open their eyes. Soon thereafter, they will begin consuming solid food. The doe and kits should receive "full feed" at this time. They will continue nursing and eating solid food until about 4 weeks of age, at which time the does lactating abilities (makingmilk) will fall off drastically. As the does are not producing much milk 4 weeks after kindling, the kits can be weaned from this time on. Once the kits are weaned, they should be kept together for a week or two in order to reduce the stress of being weaned.

After the kits have been weaned, their purpose will determine the feeding practices used. If the kits are to be used commercially, they should receive full feed until such time as they have reached the desired weight. If the kits are to be used for exhibition or replacement breeding stock, their feed should be limited to a normal ration to avoid excess fat build up. Many will feed the show or breeding animal the amount of feed they will consume in about ½ hour after feeding. Animals should be individually monitored however, to insure they are receiving enough feed, as some will require more than others.

In keeping show or replacement breeding stock, it is necessary to know what to look for. Ideally, one would like to increase the herd's quality with each litter born. A strict culling program will insure that progress is made from one litter to another.

In most cases, the type of the animals should receive first consideration. To advance in the quality of a herd it is desired to keep as replacement stock those animals which show improvement over the previous generation. Check to see if the prospective replacements show better type and confirmation then their parents. If no improvement is evident, you may wish to not use any of the new animals as future breeders If there is a noticeable improvement, you may want to consider the ancestry of the animal and use it in a breeding program with one of its ancestors.

This will enhance certain characteristics of the offspring, and with a selective breeding program, these characteristics can be improved upon from one generation to the next.

It is not uncommon, and actually preferred by many successful rabbit breeders, to breed within a bloodline. That is, to mate related animals. By keeping good records, it will be easy to determine which animals should be bred together to increase the possibility of improvement. It is suggested to offset a weakness in on animal with the same characteristic being a strength in the other. Animals with the same weakness should never be bred together.

If a herd continually shows a weakness in a certain characteristic, it may become necessary to introduce new animals into the herd that do not have that weakness. It is important from this pint on to observe the offspring. By eliminating the animals still showing the weakness and keeping the animals that do not, one can "cull out" the weakness and improve the quality of the herd.

It is a good idea to contact an experienced breeder and ask advice whenever in doubt about any aspect of rabbit raising. Everyone was a beginner at one time, and you will discover there are no dumb questions when it comes to raising rabbits.

Practical Breeding Advice for the Domestic Rabbit



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The success or failure of an individual or family wishing to raise rabbits depends on their knowledge of and ability to carry out certain requirements. Not only is it necessary to insure the rabbits breed successfully, but one must then provide the proper materials necessary for kindling (giving birth) and raising the kits.

At the time of wearing (separating the young from the mother), properly selecting any animals they wish to keep as replacement breeders, or possibly exhibition stock, is another area that certain knowledge is required.

Below, an attempt will be made to briefly discuss procedures that have proven successful for breeding and raising rabbits. As in most endeavors, what works for one individual docs not always work for another. However, the methods below have been used for many years, by many successful rabbit breeders, and have come to be known by the majority as acceptable.

BREEDING YOUR RABBITS

The sexual maturity of a rabbit should determine when it is first introduced into a breeding program. Due to the many variations of sizes and shapes of the domestic rabbit breeds, there is no specific age or size that would apply to all rabbits for breeding. It is generally accepted that the smaller breeds reach sexual maturity earlier than the larger breeds, and that does are normally sexually mature before bucks. A general consensus is that sexual maturity is reached in the smaller breeds (4 pounds and under) at approximately 4 to 5 months of age, the medium sized breeds (5-9 pounds) at approximately 5 to 6 months of age, the large breeds (10-12 pounds) at approximately 6-7 months of age, while the large breeds (over 12 pounds) seem to mature sexually at 8 months or older. The above weights refer to the ideal senior breed weight of the animals.

Animals intended for breeding purposes should not be overly fed, as the accumulation of excess fat in bucks or does may be very detrimental to your breeding program. All animals should be kept in good physical condition, and not used for breeding if they are of poor flesh or fur condition.

There are several methods of breeding (natural, restrained, forced, colony, and artificial insemination).

The natural method is the most commonly accepted, and consists of the doe being taken to the bucks cage and allowed to move around at will. The buck will normally "chase" the doe around for an undetermined length of time (this is considered foreplay), then at some point the buck will mount the doe from the rear. If the doe is receptive, she will lift her hindquarters and breeding will take place. The buck will fall off the doe to the rear or to the side. A good breeding has not taken place unless the buck falls off. The doe should then be removed from the cage. A rebreeding approximately 6-10 hours after the original breeding will increase the probability of conception.

The restrained method is similar to the natural method, only when the doe is placed in the buck's cage she is retrained by holding her head and ears. This allows the buck to mount the doe immediately, saving time.

Forced mating is the same as the retrained method, only when (the buck mounts the doe, her hindquarters are lifted into a breeding position. Not only does this method save time, but it allows the doe to be bred even when she is not receptive to the buck. A disadvantage to breeding using the restricted or forced method is that the conception rate does not seem to be as great, or the litter size as large.

Colony mating is when a buck is allowed to run with several does in a large pen or enclosed area. This method requires much more managerial attention, as the does must be palpated (checked for pregnancy) to determine whether they were successfully bred, the animals must be watched so injuries do not occur, and selective breeding is not possible.

Artificial insemination is a new method that is still in its neophyte stages for rabbits. It requires more time, and is not feasible in most cases for the rabbit breeder. This method will however, allow for an excellent specimen's genes with desired traits to be passed on to future generations after the animal is no longer able to be used in a breeding program.

THE KINDLING PROCESS

After the doe has been successfully bred, her gestation period will last from 28 to 32 days. Most does will kindle at 30-31 days; however this may vary by one or two days. During her gestation period, the doe should be supplied with the proper nutrients and vitamins. This can be accomplished through the use of a good, scientifically balanced, commercial rabbit freed. Normally the doe will lessen her feed intake the last day or two of pregnancy before kindling. If this is not done naturally, the feed should should be reduced to about 50% to prevent ketosis or mastitis.

A nest box should be provided for the doe at approximately 26 days into the gestation period. There are many different sizes and styles of nest boxes. A box should be provided that is 3 to 4 inches longer and wider than the doe. Larger boxes may encourage the doe to use the box as a resting place, and possibly foul the box. The nest box may be made of wood, plastic, metal, or wire. The wooden boxes are the most common. It is important to insure the nest box is disinfected before each use, and this can be accomplished by submerging the entire box in a solution of 1 part household bleach to 5 parts water. Leave the box submerged for 20 minutes to $\frac{1}{2}$ hour, then let dry in the sun if possible.

The nesting materials used can be straw, shredded paper, wood shavings, or any other similar nontoxic material. Many prefer to use a layer of wood shavings or shredded paper in the bottom of the box for absorbing purposes, then an adequate supply of straw on top of this. Make sure the nesting materials are clean, and have not been contaminated. The nest box should be placed in an area of the cage that is not used by the doc for urination or fecal elimination.

Does should not be disturbed during the kindling process. It is important to insure other animals such as dogs, cats, or rodents do not have access to the area as they can cause excitement in the doe and possibly affect a normal delivery. The temperature will play an important part in the kindling process. If it is cold, cautions should be taken to provide some extra materials or insulation to the nest box for the newborn kits. If it is hot, supplements such as fans, frozen bottles of water, etc. should be provided so the doe does not suffer from heat exhaustion. It may be necessary to remove some of the fur the doe has pulled for the nest to insure the kits do not get overheated.

After the kindling process occurs, the doe should be given ample time to rest. Clean fresh water should be available at all times. After the doe seems to be relaxed and recovered from kindling, the nest box should be checked to insure all of the kits are alive. Remove any afterbirth or fatalities from the box. For

-5