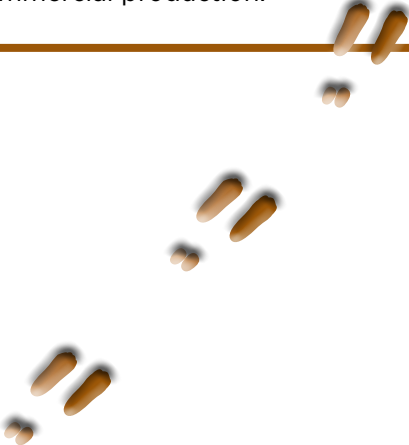


Breeding Techniques & Management



Introduction

Rabbits have a high reproductive rate compared to other livestock. They become sexually mature within a few months of birth and have relatively short pregnancies. They produce large litters and are unique in that they can be rebred immediately after **kindling** (giving birth). With an intensive breeding program, a doe can be expected to have 60 weaned young a year. Such intensive breeding is not recommended, however, for the beginner and is seldom used in commercial production.



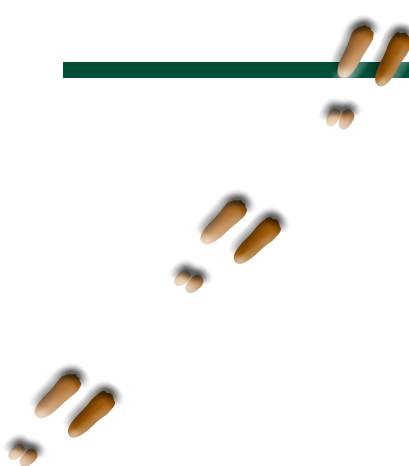
Breeding Schedule

When setting up a breeding system for your rabbitry, your first consideration should be your purpose for raising rabbits. If you're raising rabbits for meat, you may want to produce as many fryers as possible. If you're mostly interested in showing rabbits, you may want to have only a few litters each year and time them to provide stock of the proper age for showing.

Rabbit breeding schedules are usually based on 7-day intervals for ease in recordkeeping. Many commercial rabbit producers will breed does back 14 to 21 days after kindling. A 35-day breed-back schedule is recommended. You can shorten the interval between kindling and breeding as you gain experience. However, intensive breeding programs may increase the number of does **culled** (put down) annually due to "burn out".

No matter what breeding schedule you use, always check the condition of the rabbits before mating them. It would not be wise to mate a doe again in poor condition or one nursing a large litter 21 days after kindling, as it could affect her reproductive performance. This could result in poor fertility, a small litter or high death rate in the young produced. Make sure the doe is in acceptable health conditions to limit risk of potential problems. When possible, mate several does on the same day or within a few days of one another. Kindling will take place at about the same time (28 to 32 days later), which will make fostering the young easier if it becomes necessary. Does should be expected to produce seven or eight young in a litter, but they may occasionally have smaller or bigger litters, depending on the specific breed of rabbit.

Mature bucks can be used daily for single matings over long periods without affecting their fertility. However, if they are used to service several does within a day or two, they should be allowed to rest for a few days before mating



again. In large commercial rabbitries, one buck may be kept for each 10 to 15 does, while small producers may need a buck to doe ratio of 1 to 5 or even 1 to 2. An intensive breeding program will require more bucks to service the same number of does than a less intensive breeding schedule. Remember to use the same buck with the same does during the breeding to ensure the correct pedigree.

Age to Breed

Different breeds of rabbits reach sexual maturity at different ages. The smaller breeds become sexually mature earlier than the larger breeds. Small breeds (such as the Polish) can be bred at 4 to 5 months of age. Medium breeds (for example New Zealands and Californians) become sexually mature at 6 to 7 months of age. The giant breeds (such as the Flemish Giant) should be at least 7 months of age when bred. The females of all rabbit breeds reach sexual maturity earlier than the males. This means that does can be put into production before bucks of a similar age.

Mating

When does become receptive to mating, they will usually show signs of being in heat. They may act restless, rub their chins on feed and water containers or other equipment, and show a desire to join other rabbits. The **vulva** (external genital organ of the female) of does that are ready to mate is slightly swollen, moist and a reddish, purplish color. A small, dry, pale (whitish) vulva means that the doe is not ready to breed. The doe may also "present herself," and lie on her stomach or lift her tail when touched, if she is in heat. Before any mating attempts, examine both the buck and doe to be sure they are in good condition and free of disease and injury.

Always take a doe to the buck's cage for mating. Does are territorial, and another animal being placed in her cage may cause her to become defensive. Also, if a buck is placed in a strange cage, he may spend a long time sniffing around the cage before breeding the doe. When a doe that is ready for mating is placed with an active, experienced buck, mating should occur almost immediately. Of course, mating young inexperienced stock may require more time than mating experienced breeders. At the completion of the mating act, the buck will usually fall over backwards or on his side.

Some rabbit raisers allow the buck to mate with the doe twice before returning the doe to her cage. Others prefer to take the doe back to the same buck for a second mating 8 to 12 hours after the first mating. Be sure to record the date of all matings so that you prepare for kindling (such as placing a nest box in the doe's cage) at the proper time.

Often a doe will refuse to mate with a buck. When this happens, try her with another buck or return her to the cage and try her again in 2 to 4 days. Don't leave a doe unattended in a buck's cage. An aggressive buck and a nonreceptive doe left alone together could hurt each other. In some cases, it may be necessary to restrain a doe for mating. Do this by holding the doe by the shoulders with one hand. Place your other hand under her

body between the hind legs (this raises her hindquarters to the normal height for service) and move her tail up or to one side. Most bucks will readily adapt to such assistance by the rabbit raiser.

Breeding Problems

Rabbits often show a natural decline in productivity during the late summer, fall and early winter. Both reception and conception rate may decrease during this time. Selecting breeders from stock that produces well all year will help ensure good production during this period.

Exposure to temperatures over 85 °F for 5 consecutive days can cause temporary sterility in bucks. Old bucks tend to be more susceptible to heat than younger bucks and can remain sterile for 60 to 90 days. To help reduce male sterility due to hot weather, keep breeding bucks in the coolest part of the rabbitry, and mate them frequently.

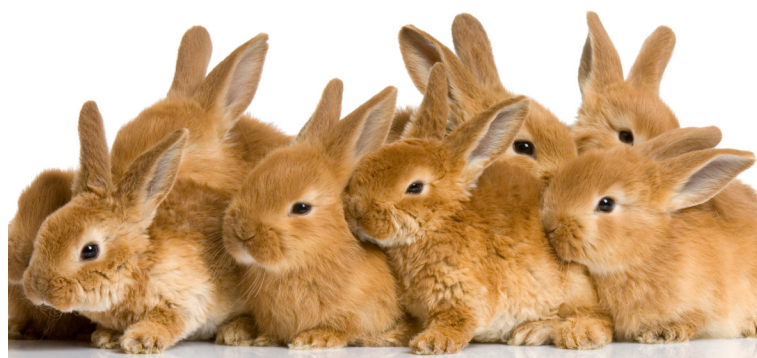
Pseudopregnancy (false pregnancy) is a condition in which a doe seems to be pregnant but is not. This can result from a sterile mating or from physical stimulation, such as being mounted by another rabbit, which causes a physiological response in the doe, resembling pregnancy. During pseudopregnancy, which lasts about 17 days, the doe will not breed. She may also construct a nest, even though she may not be expecting. Although the condition is normal and not harmful to the doe, it will delay breeding.

Another common reproductive problem occurs when does fail to conceive after mating. This is usually because they are overweight or have been out of production for a long period. Excessively overweight bucks can also pose a problem because they tend to be lazy and lack **libido** (sexual desire). Poor physical condition, old age, disease, injury and inadequate nutrition are other factors that can cause reproductive problems. As a rabbit raiser, you should strive to keep your breeding animals in a trim, active and healthy condition for the best reproductive performance.

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- ▶ Sierra Jezuit, 4-H Animal Science Student Assistant, 4-H Youth Development, Michigan State University Extension
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