

# Management and Health Issues of Rabbits

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Rabbits are prolific and will breed year round in well managed Rabbitries. Does have been known to kindle (give birth) up to 23 kits at one time. The average litter size is eight. Rabbits usually have four to five litters per year. With proper management, rabbits can be kindled more intensively. Rabbits are ready for market at four to five pounds. It usually takes eight weeks to reach this weight with proper care and feeding. Rabbits have an efficient feed conversion ratio – the amount of feed consumed per pound of body weight gain. A doe can produce up to 10 times its own weight, or more in offspring per year.

Rabbit meat is one of the most nutritious meats available. It is the highest in protein, lowest in fat and cholesterol, has the least number of calories per pound and has only eight percent bone.

Management of rabbits for meat production is quite different from the maintenance of a pet or house rabbit. One should give careful consideration to essential elements of a rabbit production system. As with any livestock enterprise key elements of labor, facilities, and lifestyle should be considered. Conducting the necessary background investigation initially will preclude mistakes later on. Other key concerns for rabbit production include sanitation and health, nutrition, reproduction, and breeding.

## **Housing:**

Housing requirements for rabbits depend on climate. Minimal housing consisting of an “A” frame without sides can be used in moderate climates, while a climate-controlled rabbitry may be necessary in hot or cold climates. Rabbitries should be located on nearly level ground and use well-drained soil or tile-drained pits for manure. Shade should be provided over as much of the rabbitry as possible. Good ventilation at all times is imperative. Narrow buildings of modular construction offer the advantages of easy ventilation and expansion as needed.

### **Sanitation:**

Sanitation is important in any livestock enterprise but is especially so in rabbit production. Poor sanitation leads to disease and deaths; therefore, cleaning and sanitizing must be constant. Nest boxes must be disinfected between uses. Cages, feeders, and watering equipment should be sanitized periodically. An effective and inexpensive sanitizing solution is sodium hypochlorite (household chlorine bleach) added to water (1oz /1qt). This solution can be corrosive to metal.

An active rabbitry constantly experiences a loose hair problem. Does pull hair from their bodies to make nests, and some of this hair become airborne. It sticks to almost any surface, including cages, ceiling, and lights, and must be removed periodically. Loose hair may become a source for bacterial or viral growth and contamination. The most effective ways to remove hair from cages are by washing or by use of a propane torch or flame. Washing, brushing, sweeping, and vacuuming also are effective in other parts of the rabbitry.

Frequent manure removal is essential. Excess manure leads to unacceptable levels of ammonia in the air, which predisposes rabbits to respiratory disease. The manure can be composted in an efficient pit system.

### **Nutrition:**

Proper feeding is an important management practice. It is easy to overfeed or underfeed does and growing, adolescent rabbits (fryers). The amount to feed depends on the age of the fryers, or on the stage of pregnancy or lactation of the does. A general rule in feeding fryers is to feed all that can be consumed in 20 hr, with the feed hopper empty ~4 hr/day. Does are usually fed ad lib once they kindle. The general practice is to bring the doe from restricted to full feed slowly during the first week of lactation. Does that are bred to kindle five times during the year generally have their feed restricted between litters; those bred intensively should be on full feed continuously once they begin the first lactation. Feeding rabbits has been greatly aided by nutritionally complete commercial pelleted diet, restricted to  $\frac{1}{4}$  cup /5lb body weight/day to prevent obesity.

In the early morning or at night when they are unobserved, rabbits ingest part of their feces by contorting themselves so that the mouth touches the anus. They ingest only the soft matter that has been processed in the cecum. Coprophagy, or pseudorumination, is normal in rabbits and not a sign of nutritional deficiency. It serves an important

nutritional function by supplying the rabbit with intestinally synthesized B vitamins and protein.

### **Breeding:**

Generally, small breeds mature earlier than larger ones. Polish can usually be bred at four months; medium weight rabbits at six to seven months; and giants at 9 to 12 months. Many commercial breeders begin breeding successfully at 5 months. The normal estrus cycle is 16 to 18 days, with two infertile days at the beginning and the end when the doe lacks interest in the buck. Rabbits are induced-ovulators and ovulation occurs only after mating. The doe should always be taken to the male's hutch for breeding and not vice versa. If she does not mate within a few minutes, she should be removed and returned later.

Does will show a false pregnancy following unsuccessful matings. This false pregnancy lasts 17 days, and the doe will not breed during this period. For this reason, most commercial breeders will generally rebreed the doe on the 18<sup>th</sup> day. Bucks should be used no more than 2 or 3 times per week, although they can be successfully maintained for every 20 does. The most important factor is to keep animals in top body condition. Overweight animals produce unsuccessful mating and poor litter quality.

### **Kindling:**

The normal gestation period is 31 days, and the doe will usually eat less, two or three days before kindling. The nest box should be placed in the hutch on the 28<sup>th</sup> to 29<sup>th</sup> day of kindling to avoid contamination. Most litters will be kindled at night, and the doe should not be disturbed while kindling. If the doe is not given seclusion, she will destroy the litter.

After the litter is kindled, the doe pulls more fur from her body to make a nest. This plucking of fur is in no way harmful, except the doe's immediate appearance. Many breeders will keep several nest boxes with clean fur for first litter does and other does that do not pull enough to make a good nest. Since the average doe is equipped to nurse approximately eight young rabbits (kits) it is a common practice to breed several does at the same time, and then transfer kits from the large litters to the small ones two or three days after kindling to even out the milk supply.

### **General Health Concerns:**

There are several general health concerns in rabbit husbandry (see Table 1)

*Table 1:*

Disease/Condition	Symptoms	Treatment
Tapeworm infestation.	Egg/larva in feces	Do not feed intestine to Dogs or Cats
Slobbers	Excessive Salivation	Reduce intake of Greens
Sore Hocks	Sores on Hocks	Treat with antibiotics
Sore Eyes	Watery, milky discharge around the eyes	Increase Vitamin A or treat with ophthalmic antibiotic
Vent Disease	Vent swollen, irritated, and scabby	Remove scabs and apply antibiotic ointment
Coccidiosis	Off feed, rough coat, low wt gain	Good Sanitation/Sulfa drugs in water

**Source of Information:**

As with any animal production enterprise, a comprehensive health program should include a relationship with animal health officials to include local, state, and federal veterinarians. Local extension programs and academic units are also excellent sources of information.

### References Cited:

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