

Is it Necessary to Vaccinate Goats Against Overeating Disease and Tetanus?

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Although some producers have so far not experienced problems by not immunizing their goats, it is recommended to vaccinate the entire herd against overeating disease (enterotoxemia) and tetanus. Both diseases are caused by *clostridial bacteria*. Some formulations contain the overeating disease and tetanus vaccines in the same bottle. In that case, goats can be immunized against both diseases in one single injection. These 2-in-1 vaccines simplify herd preventive health programs and decrease costs.

What is overeating disease?

Overeating disease is an acute, often fatal, disease affecting goats of all ages, but that tends to be more lethal in young kids, and often in those which are doing best. It is caused by the bacteria *Clostridium perfringens* types C and D. The bacteria are commonly found in the soil, and are present in the intestines of most normal goats.

The lethal action of these organisms is that they release toxins into the blood which give rise to shock and nervous symptoms (type D), or cause inflammation of the lining of the gut and diarrhea with blood (type C).

Avoiding the conditions which allow the organisms to proliferate in the intestines and release their toxins are important. The main danger period occurs during the first few days after any change of pasture or diet, such as a change from a high quality pasture to a poor pasture or to a higher level of concentrates. Changes in feeding programs must therefore be gradual, and up to a week should be taken to change from one type of feed to another. It is also important to avoid overeating by kids, for example after they have become excessively hungry.

What are the symptoms of overeating disease?

Twitching, star gazing, teeth grinding, fever, swollen stomach, diarrhea with blood, convulsions, and death within a few hours. Affected goats are often found dead or in a terminally shocked condition with convulsions.

What is tetanus?

Tetanus is caused by a neurotoxin produced by the bacterium *Clostridium tetani*. This organism is very common in soil and in the manure of all animals. Bacterial spores enter the body through wounds following castration, ear tagging, disbudding, kidding, etc., resulting in signs of the disease 4 to 21 days later. The toxin affects the central nervous system.

What are the symptoms of tetanus?

Stiff muscles, spasms, flared nostrils, erect ears and elevated tail. In addition, the affected animals have a difficult time opening their mouths, so the term lockjaw given to the disease. Eventually, the affected animals lie down and die.

What vaccine should be used?

1. ***Clostridium perfringens* Types C and D +Tetanus Toxoid** in one vaccine. This vaccine is labeled for goats.
2. **Multivalent clostridial vaccine (8-way vaccine)**
One example of a multiway clostridial vaccine, labeled for sheep, is **Covexin8**. Covexin8 is more reactive and **generally causes a higher incidence of adverse reaction at the injection site**.
Covexin8 may preferably be used in herds which have had problems with **blackleg** and **malignant edema (gas gangrene)**. Although blackleg and malignant edema are common and costly infections in sheep and cattle, they are very uncommon in goats.

What dosage should be used and when should goats be vaccinated?

Always read the instructions provided with the vaccine.

1. *Clostridium perfringens* Types C and D + Tetanus

Dosage

- 2 mL (2 cc) per animal, regardless of age and weight

When

Bucks. Once a year

Breeding females. 4 to 6 weeks before kidding. By vaccinating does in late pregnancy, some immunity will be passed on to the kids through the colostrum.

Kids. If breeding females have been vaccinated before kidding, vaccinate kids at 8 weeks of age, then give a booster at 12 weeks of age.

If breeding females have not been vaccinated before kidding and you experience problems, vaccinate kids at 2 weeks of age, then give them a booster at 6 weeks of age.

2. Multivalent clostridial vaccine (Covexin8)

Dosage

- 5 mL (5 cc) per animal, regardless of age and weight. Kids get 5 mL (5 cc) initially, then a 2 mL (2 cc) booster 6 weeks later.

When

Bucks. Once a year

Breeding females. 4 to 6 weeks before kidding. By vaccinating does in late pregnancy, some immunity will be passed on to the kids through the colostrum.

Kids. If breeding females have been vaccinated before kidding, vaccinate kids at week 8 to 12 of age, then give them a booster at week 16 to 18 of age.

If breeding females have not been vaccinated before kidding and you experience problems, vaccinate kids at 4 weeks of age, then give them a booster at 10 weeks of age.

How should I give the injections and where?

Both *Clostridium perfringens* Types C D /Tetanus and multivalent clostridial vaccines are given in sub-cutaneous or intramuscular injections. Sub-cutaneous injections are favored because of the greater tissue damage at the injection site from intramuscular injections.

For sub-cutaneous injections, pinch loose skin between thumb and index finger high on the neck (as close to the head as possible) and insert the needle. Make sure that the needle is under the skin and does not stick out on the other of the pinched skin.

Is there a slaughter withdrawal time?

Yes, there is a 21 day waiting period between vaccination and slaughter for both vaccines.

The bottom line

A sickness in one goat or in the whole herd can cost much more when sick animals have to be treated compared to the cost of prevention. Some health problems cannot even be treated. Thus, prevention is the only sensible approach to goat herd disease management.