

CDT vaccinations

There are many diseases for which sheep and goats can be vaccinated, but there is only one universally-recommended vaccine, and it is for the clostridial diseases that commonly affect small ruminants.

Clostridial diseases are fatal diseases that strike ruminant livestock suddenly, often causing death before any clinical signs are seen. Clostridia (bacteria) are widespread in the environment. They are normally found in the soil and feces. They are also present in the digestive tract and tissues of healthy animals. For these reasons, vaccination is the best way to prevent disease outbreaks.

Two clostridial vaccines are commonly used in sheep and goats: a 3-way vaccine called CDT; and an 8-way vaccine with the trade name Covexin®-8. CDT protects healthy sheep and goats against *clostridium perfringens* type C and D (overeating disease) and *clostridium tetani* (tetanus). Covexin®-8 protects against these same diseases, plus several additional clostridial diseases, including blackleg. The 3-way vaccine is probably all that's needed on most sheep and goat farms..

Pregnant ewes and does should be vaccinated with the CDT (toxoid) during their last month of pregnancy, but at least two weeks before they are due to lamb/kid. First-time moms should be vaccinated twice in late pregnancy, 3 and 6 weeks before parturition. Rams, bucks, and wethers should receive an annual booster for CDT.

Lambs and kids will receive passive, temporary immunity to CDT when they consume colostrum. This immunity will start to wane after about six weeks. Thus, lambs and kids from vaccinated dams should receive their first CDT vaccination by the time they are 6-8 weeks of age, followed by a booster 3-4 weeks later.

Lambs and kids from unvaccinated dams should receive their first CDT vaccination when they are 3-4 weeks of age, followed by a booster 3-4 weeks later. Earlier vaccinations may not be effective, due to many factors, including the immature immune system of young lambs and kids.

The tetanus antitoxin should be administered at the time of docking, castrating, and disbudding, as lambs and kids from unvaccinated dams will lack protection (from tetanus). An antitoxin provides immediate, short-term immunity, whereas the toxoid provides longer-lasting immunity, but takes time and a second shot to complete the immune process.

A pre-lambing vaccination is the only way to protect lambs and kids from type C, though the antitoxin could be



administered in the event of a disease outbreak.

Purchased feeder lambs and kids should be vaccinated twice for clostridium perfringens type D ("classic" overeating disease). You should vaccinate any animal's whose vaccination status is unknown.

The CDT vaccine is administered subcutaneously (under the skin) by pulling up a handful of skin to make a "tent," and sliding the needle into the base of the tent and pressing the plunger. Subcutaneously injections can be given high in the neck, in the axilla (arm pit) region, or over the ribs.

Sometimes, an abscess will develop at the injection site. For this reason, the axilla is usually the best injection site, especially for market lambs and goats and show animals.

All vaccines should be stored and used according to the manufacturer's label. Needles used to vaccinate animals should not be used to draw vaccine into the syringe. Needles should be changed frequently. Ideally, a clean needle should be used for each animal. An 18- or 20-gauge needle is suitable for CD-T vaccinations.

Some experts believe that CDT vaccinations are not as effective in goats as sheep.