

Regular Vaccination Program

Sheep Vaccination

The purpose of giving a vaccine is to sensitize an animal's immune system to a specific bacteria or virus, without actually causing the disease. Under natural circumstances, a disease-causing pathogen (bacteria or virus) will enter the body, attack cells, and eventually cause the outward signs of the disease. The immune system will produce antibodies that are specifically designed to recognize and control the pathogen. If the animal survives the pathogen attack, its immune system will retain a 'memory' of that particular organism and will be able to respond more rapidly if it is encountered again. The strength of the immunity and length of time that it lasts depends on the type of pathogen and the overall health of the animal (i.e. poor nutrition and other stresses weaken the immune system). Manufactured vaccines mimic the effects of natural infection by exposing the immune system to controlled amounts of a disabled pathogen. The immune system reacts as it would to the disease, but the animal does not become ill. To maintain a high level of immunity, vaccines need to be given to sheep at regular intervals. If directly exposed to a disease-causing pathogen, even a vaccinated animal may show signs of the disease. However, the severity of the attack should be reduced, as the immune system will be able to respond quickly to the pathogen.

Vaccines designed to mimic viruses may contain live viruses (modified to not cause disease) or killed viruses. Bacterial vaccines contain inactivated bacterial cultures (bacterin) or non-toxic derivations of bacterial toxins (toxoids). Antitoxins are available to reduce the effects of some bacterial diseases in unvaccinated animals (i.e. antitoxin for tetanus may be given if the animal receives a deep puncture wound, etc.).

Before using vaccines, read the manufacturer's label carefully for information regarding administration and dosage recommendations for animals of different ages. Some vaccines are packaged in two parts; a dry component and a liquid component. The vaccine must be reconstituted (liquid portion mixed with dry) before administration. The product label will have instructions detailing the reconstitution and storage of the vaccine (e.g. refrigerate, expiry date). Vaccines that are not stored properly or are used after the expiration date may not provide the proper level of immunity. Consult with a veterinarian if the information on the label is not clear or if sheep are not included in the species listed on the label. Vaccines are most often administered by a subcutaneous injection. A lump will often form at the injection site as part of the normal reaction to the vaccine.

Some of the more common vaccines used for sheep are listed below.

If you are just starting your sheep operation, contact your veterinarian to help determine which vaccines are important for your area. The 'vaccination schedules' provided below are suggestions only. Always follow your veterinarian's advice and/or label instructions for administration.

Common vaccines for sheep:

Vaccine	Comments	Vaccination Schedule	
<p>Clostridial (bacterin or toxoid)</p> <p>AND</p> <p>Caseous Lymphadenitis</p>	<p>There are a number of diseases caused by Clostridial bacteria. These bacteria are naturally present in the environment (soil) or in the digestive tract. Clostridial vaccines are generally given in a combination vaccinations (3-, 6-, 7-, or 8-way vaccine); 8-way combinations include tetanus toxoid; 3-way and 6-way shots, may include caseous lymphadenitis.</p> <p>Tetanus antitoxin (different from the vaccine) may be given if an animal has been wounded or is otherwise at risk</p>	Ewes	<ul style="list-style-type: none"> ewes that have not been vaccinated previously should be injected at eight weeks and four weeks before lambing. A single yearly booster vaccination given four weeks before lambing is required thereafter. antibodies from the ewe are passed on to their lambs via colostrum and milk (maternal immunity) to help protect lambs from Clostridial diseases until they are four to six weeks old. This also helps ‘kick start’ the lamb’s immune system
		Lambs	<ul style="list-style-type: none"> maternal immunity from vaccinated ewes will decline when the lambs are approximately six weeks of age. Vaccinating before this age may interfere with development of the lamb’s immune system. lambs should be vaccinated around the time the maternal protection decreases (6 weeks or weaning) if ewes are NOT vaccinated during late pregnancy, lambs should be vaccinated within the first few days of life and again 2-3 weeks after and at weaning. if lambs are going on a high energy finishing ration, they should be vaccinated for Type ‘D’ again at approximately two weeks before the diet change to help prevent ‘overeating disease’ vaccinate bought lambs for Type ‘D’ at purchase and 3 weeks after.
		Ewe lambs	<ul style="list-style-type: none"> ewe lambs selected for future-breeding stock should be vaccinated twice at six weeks of age and at two weeks after weaning
<p>Vibro</p>	<ul style="list-style-type: none"> use only if vibro is a problem in your flock (diagnosed by a pathology lab) or if you purchase ewes from flocks with unknown status (always best to ask for records and history) sheep and cattle vaccines are different 	Ewes	<ul style="list-style-type: none"> if ewes that have been vaccinated annually, give a booster shot 2-3 weeks before breeding ewe lambs (not vaccinated previously) should be vaccinated 2-3 weeks before breeding and given a booster at mid-pregnancy if you are uncertain about the vaccination status of new ewes, vaccinated at purchase and follow ewe lamb schedule

Common vaccines for sheep:

Vaccine	Comments		Vaccination Schedule
Contagious Ecthyma (orf or sore mouth)	<ul style="list-style-type: none"> • live virus vaccine which can be contagious to people if not applied properly • vaccine comes with a ‘scratch’ applicator • light scratch (deep enough for the vaccine to enter the blood system) is made to skin on a wool-free area and vaccine is brushed on • vaccination does not provide 100% immunity if exposed to heavily infected sheep or environment • only use in flocks with a history - the vaccine may cause the disease in clean flocks • check after a week –the vaccinated area should be appear raised and white, and the surrounding area reddish • resulting scabs are infectious, if vaccinating ewes ensure that they are vaccinated well in advance of lambing (so that lambs do not come in contact with loosened scabs) 	Ewes and/or young lambs	<ul style="list-style-type: none"> • if you vaccinate ewes, do so well in advance of lambing (2 months prior). Immunity is not transferred to the lamb, but, if the lamb catches the disease, the ewe’s udder will be protected. • vaccinate ewes in an area of the body free of wool (e.g. inside ear etc.) • lambs should be vaccinated when a few days old • vaccinate lambs on inner thigh
Foot Rot	<ul style="list-style-type: none"> • may be used in infected flocks in conjunction with other treatments 	All	<ul style="list-style-type: none"> • subcutaneous, high on the neck • may be necessary to give for a few years before any effects are noted
Rabies	<ul style="list-style-type: none"> • only use on the advice of your veterinarian if there is a rabies outbreak in your area 		
Lamb pneumonia (PI-3)	<ul style="list-style-type: none"> • nasal spray vaccine • may help decrease incidence of pneumonia • if you have a high incidence of pneumonia in young lambs, it may be more effective to look for and revise problems with housing (ventilation, drafts, sanitation etc.) 	Young lambs	<ul style="list-style-type: none"> • give shortly after birth