

Clostridial Vaccines Comparison Chart

The data in the table below is based on product label claims as of April 2025.



Vaccine	Species	Dose	Protects against the five core clostridial diseases*	Selenium Per mL	Vitamin B12 Per mL	Additional Information
Ultravac® 5in1	Sheep, cattle	Sheep 1mL, cattle 2mL	Yes	–	–	
Ultravac 5in1 with Selenium	Adult sheep	1mL	Yes	5mg	–	For use in adult sheep only.
Ultravac 5+1 B12	Sheep, goats	1mL	Yes	–	2mg	Also contains antigens for <i>Corynebacterium pseudotuberculosis</i> .
Ultravac 5+1 Se B12	Sheep	1mL	Yes	1mg	2mg	Also contains antigens for <i>Corynebacterium pseudotuberculosis</i> .
Ultravac 7in1	Sheep, cattle	Sheep 1.5mL, cattle 2.5mL	Yes	–	–	Also contains antigens for <i>Leptospira</i> Hardjo and L. Pomona.
Eweguard® plus Selenium	Sheep	Up to 50kg 2mL, >50kg 1mL/25kg	Yes	2.5mg	–	Also contains antigens for <i>Corynebacterium pseudotuberculosis</i> & moxidectin drench.
Eweguard plus Se B12	Sheep	Up to 50kg 2mL, >50kg 1mL/25kg	Yes	1mg	1mg	Also contains antigens for <i>Corynebacterium pseudotuberculosis</i> & moxidectin drench.
Eweguard	Sheep	Up to 50kg 2mL, >50kg 1mL/25kg	Yes	–	–	Also contains antigens for <i>Corynebacterium pseudotuberculosis</i> & moxidectin drench.
Coglavax® 8	Sheep, cattle	Sheep 2mL, cattle <100kg 2mL, cattle >100kg 4mL	Yes	–	–	Also contains antigens for <i>Cl. perfringens</i> Types A, B, C
Covexin® 10	Sheep, cattle	Sheep 1mL, cattle 2mL	Yes	–	–	Also contains antigens for <i>Cl. sordellii</i> , <i>Cl. haemolyticum</i> , <i>Cl. perfringens</i> Types A, B, C
Lamb Vaccine®	Lambs	2mL	Not all	–	–	Contains antigen for <i>Cl. perfringens</i> Type D & tetanus antitoxin only.
Lamb Vaccine Selenised	Lambs	2mL	Not all	1mg	–	Contains antigen for <i>Cl. perfringens</i> Type D & tetanus antitoxin only.
Multine®	Sheep, goats, cattle	Sheep, goats, cattle <4 months 2mL, cattle >4months 4mL	Yes	–	–	
Multine Selenised	Sheep, goats	2mL	Yes	2.5mg	–	Not for use in lambs at docking /tailing.
Multine B12	Sheep, goats, cattle	Sheep, goats, cattle <4 months 2mL, cattle >4 months 4mL	Yes	–	1mg	
Multine B12 Selenised	Sheep, goats	2mL	Yes	1mg	1mg	
Nilvax® Selenised	Sheep >20kg	1mL per 5.7-17.8 kg. Dose in weight bands according to label.	Yes	1.25mg		Not for use in lambs at docking /tailing. Contains levamisole drench.

*Clostridial diseases are caused by a group of bacteria that have the ability to form resistant spores. They are resistant to extremes in temperature and can survive in soil for many years. Disease occurs only when the spore is present in damaged body tissue which provides the right conditions for the bacteria to germinate and to produce toxins. The signs of disease are caused by the toxins produced by these bacteria, not the bacteria themselves.

The primary preventable clostridial diseases are: tetanus, enterotoxaemia (pulpy kidney disease), black disease, blackleg and malignant oedema.

Additional Elements

Element	Why add?	Consideration
<i>Cl. sordellii</i>	After the standard 5 clostridial diseases, sudden death due to <i>Cl. sordellii</i> is the next most diagnosed (and reported) clostridial disease affecting sheep and cattle ¹ .	Consider adding sordelli to your vaccination program if a robust 5in1 program is in place but unexplained deaths are still occurring and/or stock are intensively grazed or frequently moved to different feed types and especially high carbohydrate crops.
<i>Cl. perfringens</i> Type A, B, C	Disease associated with <i>Cl. perf. A</i> has been diagnosed (and reported) rarely (mainly in dogs, pigs and horses) once in a cow ¹ . Disease associated with <i>Cl. perf. B</i> has been diagnosed once in a dead lamb in NZ ² and <i>Cl. perf C</i> has never been found or known to have caused disease in NZ animals.	Consider adding perf A,B,C if unexplained deaths occur despite a robust 5in1 vaccination program being in place.
<i>Cl. haemolyticum</i>	Rarely reported to cause disease, mainly in cattle with a possible associated cause with liver fluke infection.	Consider adding haemolyticum in a liver fluke area and if deaths are still occurring despite robust 5in1 programme.
<i>Corynebacterium pseudotuberculosis</i>	Bacteria causing the disease 'cheesy gland' an infection in the lymph nodes of sheep, often spread through shearing cuts and dipping. Mainly an issue of merino sheep due to the wrinkly skin (more likely to get nicked during shearing).	Add this antigen when the risk of shearing cuts is higher and/or if cheesy gland is in the flock (risk of spread is higher). Check killing sheets of cull ewes for high levels of pyogenic lesions.
<i>Leptospira pomona</i> and <i>hardjo</i>	Leptospirosis can cause abortion, milk drop and sick animals in cattle and abortion and reduced growth rates in sheep. Lepto can also make people very sick and is transmitted via the urine of infected animals.	Vaccinating stock helps protect people, as well as livestock.
Selenium	Adequate selenium will prevent white muscle disease and ensure optimal growth. Conventional safe dosage is 0.1mg/kg i.e. 1mg for 10kg lamb. However, a safe dose does not necessarily equate to the selenium requirement of the lamb, which can be less. 1mg in a 25kg lamb is likely to last at least 25 days ³ .	High doses of selenium are toxic and more is not always better. 1-2mg/lamb is a top up amount for lambs. Deficiency should be assessed via liver and blood testing and addressed via a monitored whole flock (including ewes) supplementation programme.
Vitamin B12	Trial work has shown ewes supplemented with vitamin B12 pre-lamb had higher vitamin B12 levels in their colostrum, which provided sufficient vitamin B12 to their lambs for the first 30 days of life ⁵ . Note: a pre-ruminant lamb is likely to source energy from glucose, much like a monogastric, and its requirement for vitamin B12 will be less. Vitamin B12 in these vaccines is stored in the liver at useful concentrations for about 4-6 weeks at which point lambs should be re-supplemented if the feed is deficient in Cobalt.	Young ruminating lambs have the highest requirement for vitamin B12 followed by, in order, ewes, calves and cows. Weaned lambs need 11 micrograms/day (0.01mg/day). A dose of 1 – 2mg for lambs should provide ample vitamin B12 for at least 30 days. Treat lambs at docking and weaning. Then at intervals of 1-3 months depending on severity of deficiency. Prelamb, treat ewes 2-4 weeks before lambing (2mg/ewe).
Moxidectin	In Eweguard, moxidectin provides a medium acting worm drench that protects ewes around lambing for up to 35 days against <i>Teladorsagia circumcincta</i> and <i>Haemonchus contortus</i> , and for 7 days against <i>Trichostrongylus colubriformis</i> .	Ewes that are in less than body condition score 3, or face a feed shortage or who are carrying multiples may benefit from added worm protection. Trials have shown ewes treated with Eweguard weaned in heavier condition and so did their lambs ⁴ .
Levamisole	In Nilvax, levamisole is a short acting worm drench and can help improve the immune response to vaccination.	Short acting drenches given at prelamb or at tailing have not reliably demonstrated a production response in ewes (they only 'clean out' existing parasites and don't prevent further daily uptake of larvae). Due to the dose regime, heavier ewes could receive an insufficient dose to kill parasites. Underdosing is a contributing factor to causing drench resistance.

References: 1. Surveillance Quarterly 1990-2022. 2. Death of a Neonatal Lamb Due to *Clostridium perfringens* Type B in New Zealand Munday J. et al. NZVJ 2020 . 3. Grace, N.D. Role and importance of trace elements in New Zealand livestock. Fact and fiction. Proceedings of the New Zealand Society of Animal Production 2002. 4. Zoetis Data on file. 5. Grace, N.D. The effect of increasing the Vitamin B12 status of Romney ewes on foetal liver Vitamin B12, milk Vitamin B12 and liver Vitamin. NZVJ 1999.

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