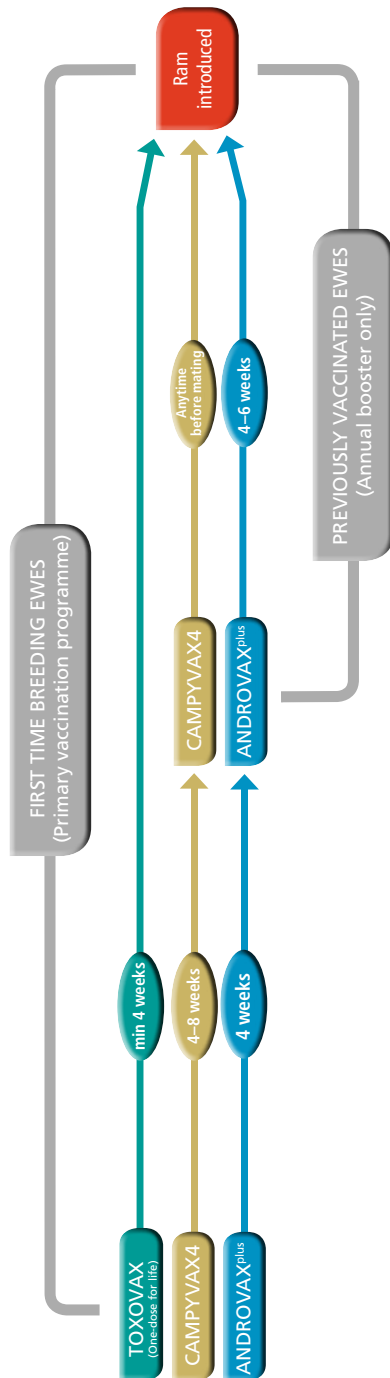


Recommended vaccination schedule



Vaccination with CAMPYVAX4

A sensitiser and booster vaccination of all replacement breeding ewes is recommended (or for all breeding ewes if a new farm vaccination programme is commencing). An annual booster is also recommended. The sensitiser and booster vaccinations should be given to fit normal farming practice; they can both be given prior to mating, or the sensitiser before and the booster after mating. Allow 4 weeks between sensitiser and booster. The annual booster should be given prior to mating in subsequent years. The 1mL dose is given subcutaneously in the anterior (front) half of the neck.

Benefits of Campyvox4.

- ▶ Protection against abortion storms capable of inflicting lamb losses of up to 30%.
- ▶ Protection against unseen losses between scanning and tailing.
- ▶ The only vaccine with a specific claim for protection against perinatal loss of weak and non-viable lambs.
- ▶ Provides on average a 9%¹ increase in lambs at tailing compared to an unvaccinated flock.
- ▶ Protection against all *Campylobacter fetus fetus* strains.
- ▶ The only vaccine that includes *Campylobacter jejuni*.

Prescription Animal Remedy (P.A.R) Class I. For use only under the authority or prescription of a veterinarian. Registered pursuant to the ACVM Act 1997, No: A9535, No: A9927 and No: A4769. ®Registered trademark. Schering-Plough Animal Health Limited, 33 Whakatiki Street, Upper Hutt. Phone: 0800 800 543. CAP-526-2009.



CAMPYVAX4®

The most common cause of infectious sheep abortions

Campylobacter is responsible for large scale abortions, with losses of up to 30% reported. Such large scale abortion storms are extremely devastating.

Recent evidence suggests subclinical infections play a role in reduced lamb survival. Numerous studies have shown an association between vaccination and increased lambing percentage. Even when no abortions have been seen, vaccination has been observed to increase lambing percentage by an average of 9%¹.

Vaccinate with Campyvax4 – prevent Campylobacter abortion storms and increase your lambing by an average of 9%¹.

How Campylobacter affects ewes and their lambs.

Most Campylobacter abortions in sheep are caused by the species *Campylobacter fetus fetus*. Testing indicates that around 80% of ewes are exposed to *Campylobacter fetus fetus* during their lifetime.

A second species, *Campylobacter jejuni* can also cause abortion. Abortions caused by *Campylobacter jejuni* can be significant, but are sporadic.

Campyvax4 is the only vaccine to contain both these Campylobacter species.

Even in the absence of obvious abortions, Campylobacter is a significant cause of unnoticed abortions, and the birth of dead and weak lambs.

Infected ewes usually remain healthy and become immune after infection.

How Campylobacter spreads

Infections are spread to other ewes by direct contact with aborted foetuses, membranes or vaginal discharges. These discharges occur for up to 6 weeks following abortion. Sheep can also be indirectly infected by eating pasture or drinking water contaminated with bacteria. The bacteria can survive in soil, water, pasture and hay for up to three weeks – longer in winter.

Some ewes become carriers and these animals can be a source of infection in subsequent seasons.

Risk factors for infection with Campylobacter.

These include:

- ▶ Naïve sheep – hoggets or two-tooths (most susceptible to infection) entering the breeding flock.
- ▶ Ewes with a history of Campylobacter abortion mixing with replacement stock.
- ▶ High density stocking in winter that increases the level of contamination and potential for infection.
- ▶ No or incomplete vaccination.

How do I know if my flock is affected?

Campylobacter are present on most, if not all, farms. It is therefore likely to be present on your farm, even though it may not have been diagnosed or you have not seen abortions.

Abortion storms are obvious. However, in many cases the signs are not so clear cut. Losses are often scattered, ongoing and not readily detected. Either way, the impact on your lamb productivity will be significant.

Greater than expected differences between scanning and tailing percentages can be an indication of Campylobacter infection, even if there is no obvious history of the disease on your farm.

Analysing your tailing/docking result

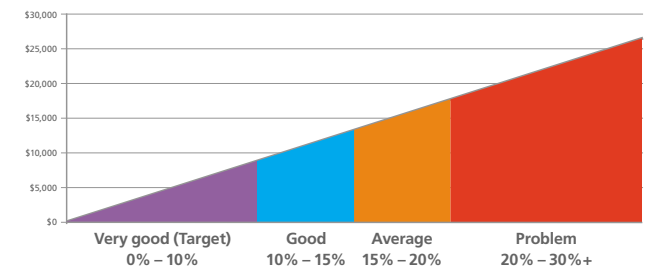
Crucial to increasing lamb survival is reducing losses from scanning to tailing. Analysis of scanning and tailing/docking data is a powerful tool. It can help you to:

- ▶ Determine lambing performance parameters, identify problems and plan a management strategy to improve productivity.
- ▶ Identify low conception and/or low lamb survival as factors in substandard lambing percentages.
- ▶ Pinpoint factors such as Campylobacter, which could be undermining your lambing productivity.
- ▶ Compare against benchmark figures.
- ▶ Track the impact of management changes, such as Campyvax4 vaccination on lambing percentage.

As a guide, the national average for lamb loss is 17%, and ranges from 5% – 40%.

Indicative lamb loss percentage performance guide:

Lamb loss targets between scanning and tailing and costs per 1000 ewes*



*Based upon 1000 ewes with a scanning percentage of 140%, average \$80 sale per lamb, less \$20 rearing costs per lamb.

1. Anderson P and Sewell J (2000) The significance and use of sheep scanning data. Proc 30th Annual seminar, Society of Sheep & Beef Cattle Veterinarians, NZVA p31-3.