Campylovexin®

Provides protection against all the strains of *Campylobacter* in New Zealand. Stimulates immunity to *C. fetus fetus* thus protecting sheep against *Campylobacter* abortion.

The only *Campylobacter* vaccine with proven efficacy against all known New Zealand strains of *C. fetus fetus*.

- Proven in the field for 30 years
- Proven to reduce abortion rates
- Shown to improve tailing % by 9.3%

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**CAMPYLOVEKIN® PROTECTS AGAINST ALL 26 NEW ZEALAND STRAINS OF CAMPYLOBACTER FETUS FETUS:**

Campylovexin® is the only vaccine proven to protect against all 26 strains of *Campylobacter fetus fetus* so far identified in New Zealand. Its effectiveness has been conclusively proven in a three year PhD research investigation – and in thirty years of successful use on New Zealand farms. Tens of millions of sheep and thousands of farmers bear testament to how well Campylovexin® protects against one of the major causes of reduced lambing performance.

**DOSAGE & ADMINISTRATION:**

Administer by subcutaneous injection only. Inject 2mL in the anterior half of the neck.

EWES: In the first year give a sensitiser and booster dose 4-8 weeks apart. Both vaccinations should be given prior to mating. In following years an annual booster should be administered prior to mating.

NEW STOCK being introduced to the breeding flock: Give 2 vaccinations 4-8 weeks apart, prior to mating.

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**DESCRIPTION:**

Inactivated vaccine of ovine *Campylobacter fetus fetus*. Packs of 250mL and 500mL.

**MODE OF ACTION:**

Stimulates production of antibodies against *C. fetus fetus*.

**INDICATIONS:**

For use where there is risk of abortion due to *C. fetus fetus*. Protects against *C. fetus fetus* abortions in sheep and consequently can contribute toward improving lambing performance.

**SIDE EFFECTS:**

A slight reaction may occur at the site of injection but will normally disappear in a few weeks. Occasionally, for up to a week after vaccination, some ewes may develop symptoms ranging from mild loss of appetite through to ataxia, recumbency and death. Affected ewes may respond to treatment with metabolic solutions containing calcium and magnesium but hypomagnesaemia is not necessarily the primary cause.

**CONTRAINDICATIONS:**

Do not use within 1 week of start of mating (see side effects).

**WITHHOLDING PERIOD:**

Meat and Milk: NIL

Registered pursuant to the ACVM Act 1997 No. A4130. See www.foodsafety.govt.nz for registration conditions. Only available under Veterinary Authorisation.

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**Number of ewes** | **Campylovexin® investment** | **Extra Lambs** | **At $50** | **At $60** | **At $80** | **At $100**
---|---|---|---|---|---|---|
1000 | $640 | 93 | $4650 | $5580 | $7440 | $9300 |
2000 | $1280 | 186 | $9300 | $11160 | $14880 | $18600 |
3000 | $1920 | 279 | $13950 | $16740 | $22320 | $27900 |
4000 | $2560 | 372 | $18600 | $22320 | $29760 | $37200 |
5000 | $3200 | 465 | $23250 | $27900 | $37200 | $46500 |

**Return on investment** | 627% | 772% | 1063% | 1353% |
---|---|---|---|---|
Vaccination against *Campylobacter* disease improves productivity.

Ten years’ worth of scanning information involving more than 600 sets of flock data has thrown new light on the path to better productivity. It highlighted a range of management practices (e.g., shearing dates, grazing policy) that impact on both conception rates and tailing percentages.

One key factor in lambing performance identified in the analysis is vaccination against *Campylobacter* disease with Campyloxain®. Analysis of the scanning data showed that vaccinated flocks enjoyed significantly better protection against losses caused by *Campylobacter* disease than unvaccinated flocks on the same property. *Campylobacter* disease is a major cause of lambing losses. These can manifest themselves as abortion ‘storms’ or more isolated and hard-to-detect abortions.

Analysis of the scanning data has shown a positive response to vaccination, even on properties where *Campylobacter* has never been diagnosed.

Cost Benefit Analysis of using Campyloxain®.

Animals are vaccinated to:

a. Prevent abortions – to protect ewes against contracting *campylobacter* disease, and aborting their foetuses. Abortions mainly occur after the third month of pregnancy.

b. To prevent infected ewes spreading the disease to other ewes. An aborting ewe rarely shows a systemic effect, however, *C. fetus fetus* may persist in the uterine discharge for up to 6 weeks.

c. To prevent reduced fertility – recent evidence based on response to vaccination suggests *C. fetus* is also a cause of reduced fertility.

**Profitability – Abortions on farm are a production loss as is reduced fertility, even low levels can have a significant impact on the farm business profitability.**

*Campylobacter* leads to significant losses in productivity. It is one of the leading causes of ewe abortions, and it produces weakened lambs that are much more likely to not survive. These losses are preventable. Vaccination with Campyloxain® as part of your clients’ lambing performance programmes will protect against abortions, increase lamb viability and significantly improve productivity for your clients.

Analysis of nine years of largescale scanning data demonstrates the benefits of vaccinating with Campyloxain®. Campyloxain® provides maximum protection for the flock – achieving maximum productivity.

**New Zealand produced Campyloxain vaccine protects against lamb losses.**

Vaccinating against *Campylobacter* disease protects born lambs from the infectious bacteria that invade the placenta and foetus. By protecting these lambs and helping prevent abortion losses, your tailing percentages can be significantly improved. Even if *campylobacter* has not been diagnosed on your farm, the disease may well be present. Preventative vaccination could help eliminate a hard-to-detect but important cause of lamb losses.

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**Data from Gribbles Veterinary Pathology shows that the majority of campylobacter cases are due to *C. fetus fetus* not *C. jejuni*.**

Data from Gribbles Veterinary Pathology shows that the majority of campylobacter cases as a % of total submissions in both 2004 (11.2 vs. 1.1%) and 2005 (14.5 vs. 1.8%) were due to *C. fetus fetus* not *C. jejuni*.

1. A report on sheep abortion diagnoses in South Otago for 1999 shows 17.2% of all cases due to *C. fetus fetus* and 5.3% due to *C. jejuni*.

2. A study of 85 campylobacter sheep abortion isolates in 1999 from 28 Hawkes Bay farms showed 81 (95%) isolates from 25 (89%) farms were *C. fetus fetus* and 4 (5%) isolates from 3 (11%) of farms were *C. jejuni*.

3. A detailed study of 320 NZ wide sheep abortion campylobacter isolates from 221 farms in 2000 showed that 92% of isolates from 90% of farms were *C. fetus fetus* and 10% from 8% of farms were *C. jejuni*. C. coli was isolated once. Regionally there was considerable variation, however given the small number of isolates in some regions this data must be interpreted with caution.

In summary, the great majority of campylobacter abortions in sheep are caused by *C. fetus fetus*. *C. jejuni* is isolated in a minor number of sheep abortions that appear to be regional in nature.