

## Cydectin Long Acting Injection – A Breakthrough for Sheep

Easy to use long acting broad spectrum drench with persistent activity against:

- *Teladorsagia (Ostertagia) circumcincta* for 112 days<sup>1</sup>
- *Haemonchus contortus* for 91 days<sup>1</sup>
- *Trichostrongylus colubriformis* for 42 days<sup>1</sup>

Itchmite and nasal bot control

Most potent macrocyclic lactone (ML) available which has shown efficacy against a number of ivermectin<sup>2</sup> resistant strains

Effective against benzimidazole (BZ) and levamisole resistant worms



<sup>1</sup> The protection period may vary from the times stated. Where resistance exists, protection periods may be shorter than those stated. Some field studies have shown that a longer protection period may be achieved.  
<sup>2</sup> As moxidectin shares a similar mechanism of action to the avermectins, it should not be used where avermectin resistance is present, except where specially recommended by an advisor.

## The Complete Range for Sheep

All Cydectin sheep products contain the most potent ML available for control of BZ and levamisole resistant worms, and efficacy against a number of ivermectin resistant strains.

### Cydectin Plus Tape

Ideal first broad spectrum drench for lambs

- Effective tapeworm control
- Short, 7 days, meat withholding period



### Cydectin Plus Fluke

Oral Solution for Sheep

- Controls all three stages of fluke
- 35 days persistent activity against barber's pole worm
- 21 days persistent activity against *Teladorsagia (Ostertagia) circumcincta*



### Cydectin Oral and Cydectin S

- 35 days persistent activity against barber's pole worm
- 21 days persistent activity against *Teladorsagia (Ostertagia) circumcincta*
- Available with or without selenium
- Short, 10 days, meat withholding period



### Cydectin Injection

- 35 days persistent activity against barber's pole worm
- 35 days persistent activity against *Teladorsagia (Ostertagia) circumcincta*
- 7 days persistent activity against *Trichostrongylus colubriformis*



### Eweguard, Eweguard Plus Selenium and Eweguard Plus Se B12

Easy to use single dose broad spectrum worm control and 6 in 1 vaccination. Ideal pre-lamb treatment for ewes.

- 35 days persistent activity against barber's pole worm
- 35 days persistent activity against *Teladorsagia (Ostertagia) circumcincta*
- 7 days persistent activity against *Trichostrongylus colubriformis*



### Pfizer New Zealand Limited

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# CYDECTIN<sup>®</sup> Long Acting

Injection for Sheep



Longer worm protection  
from **one simple injection**

# Longer Worm Protection

## from just *One Simple Injection*



Cydectin® Long Acting Injection for Sheep offers:

### Longer Worm Protection

- **112 days** control of **small brown stomach worm** (*Teladorsagia circumcincta*)<sup>1</sup>
- **91 days** control of **barber's pole worm** (*Haemonchus contortus*)<sup>1</sup>
- **42 days** control of **black scour worm** (*Trichostrongylus colubriformis*)<sup>1</sup>

1

### Control of Resistant Worms

Cydectin Long Acting Injection contains the most potent macrocyclic lactone (ML). It has shown efficacy against a number of ivermectin resistant<sup>2</sup> strains of *H. contortus* (barber's pole worm) and *Ostertagia* spp. (small brown stomach worm).

Cydectin Long Acting Injection is also effective against worms with resistance to other anthelmintics including white (benzimidazole), clear (levamisole) and morantel drenches.

2

### Reduced Drenching Frequency

Cydectin Long Acting Injection reduces drenching frequency which saves time, labour, reduces risks associated with yarding such as enzootic pneumonia and reduces selection pressure for resistant worms.

3

### External Parasite Control

Cydectin Long Acting Injection controls nasal bots and itchmite.

4

### Ease of Use

Cydectin Long Acting Injection is applied as a single shot, under the skin (subcutaneous) in the base of the ear or just behind the ear. It comes in a convenient 500 mL pack and is administered with a special easy to use sheep injector.

5



### The Benefits

- Longer acting worm control means cleaner sheep, less pasture contamination, increased productivity
- Reduced development of resistance due to efficacy against resistant worms and reduced drenching frequency
- Ease of application – a simple, quick injection means less time spent drenching and handling sheep
- Less frequent drenching reduces costs and risks associated with yarding such as enzootic pneumonia

<sup>1</sup> The protection period may vary from the times stated. Where resistance exists, protection periods may be shorter than those stated. Some field studies have shown that a longer protection period may be achieved.

<sup>2</sup> As moxidectin shares a similar mechanism of action to the avermectins, it should not be used where avermectin resistance is present, except where specially recommended by an advisor.

# When Can I Use Cydectin Long Acting Injection for Sheep?



## 1 Using Cydectin Long Acting Injection for Sheep for barber's pole worm control

*Haemonchus contortus* (barber's pole worm) is an important cause of lost production in both lambs and adult sheep.

Cydectin Long Acting Injection for Sheep is ideal to ensure stock are protected from this potentially lethal parasite.

It contains the most potent macrocyclic lactone (ML) and provides 91 days protection against barber's pole worm after a single dose.<sup>1</sup>

Cydectin Long Acting Injection for Sheep is also a broad spectrum drench and therefore controls other roundworms and external parasites as well.

The potency of Cydectin Long Acting Injection for Sheep means that it has shown efficacy against a number of ivermectin<sup>2</sup> resistant strains of worms. It is also effective against worms resistant to benzimidazoles (BZs) and levamisole.



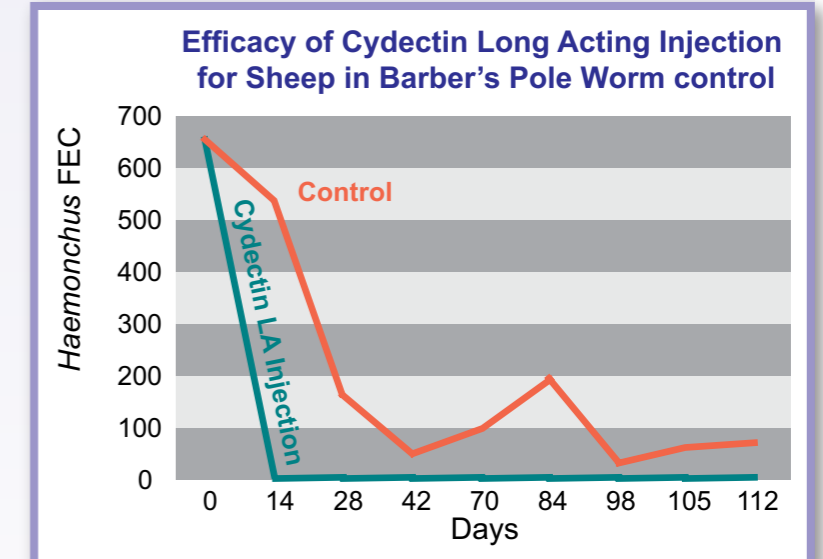
## Field Trial – Barber's Pole Worm

A field trial was conducted in North Auckland to demonstrate the efficacy of Cydectin Long Acting Injection for Sheep against barber's pole worm during summer/autumn.

Thirty five lambs were treated with Cydectin Long Acting Injection for Sheep and grazed with 35 control\* lambs. Faecal egg counts (FECs) were monitored out to day 112.

As the *Haemonchus* FEC graph shows, Cydectin Long Acting Injection for Sheep controlled the *Haemonchus* infection and prevented the reappearance of *Haemonchus* eggs for 112 days.

\*Due to animal welfare concerns for untreated animals, 23 of the 35 animals in the control group were treated with a dual combination at the start of the trial (and their data was excluded from FEC results on days 0 and 14). A further three control animals were treated on day 14, and 22 of the control animals were again drenched on day 49 of the trial.



Trial number 0982-O-NZ-03-04, data on file

1 The protection period may vary from the times stated. Where resistance exists, protection periods may be shorter than those stated. Some field studies have shown that a longer protection period may be achieved.

2 As moxidectin shares a similar mechanism of action to the avermectins, it should not be used where avermectin resistance is present, except where specially recommended by an advisor.



## 2 Using Cydectin Long Acting Injection for Sheep for protecting hoggets through the autumn

Clinical parasitism and productivity losses caused by worms are greatest in lambs in their first autumn.

In addition these animals are also at risk from enzootic pneumonia. Like parasitism, symptoms from this disease run along the continuum from death to clinical symptoms to subclinical production (growth rate) losses. In addition it can result in condemnation and downgrading of carcasses at slaughter.

There are several predisposing factors for enzootic pneumonia including mustering and yarding especially in dry, dusty conditions. Several bacteria and viruses have been implicated in the disease.

An important way of reducing the occurrence of enzootic pneumonia is to minimise predisposing factors and avoid unnecessary stress on lambs and hoggets. Cydectin Long Acting Injection for Sheep allows farmers to minimise the mustering, yarding and close confinement of stock through the autumn period due to its extended period of parasite protection. One treatment of Cydectin Long Acting Injection for Sheep at the recommended dose will provide control of *Ostertagia circumcincta* for 112 days<sup>1</sup>, *Haemonchus contortus* for 91 days<sup>1</sup> and *Trichostrongylus colubriformis* for 42 days<sup>1</sup>.

As well as allowing farmers to minimise yarding and handling of stock the effectiveness of Cydectin Long Acting Injection for Sheep will ensure optimum parasite control thus having a positive effect on the overall health of this at-risk group.

<sup>1</sup> The protection period may vary from the times stated. Where resistance exists, protection periods may be shorter than those stated. Some field studies have shown that a longer protection period may be achieved.

### Field Trial – Autumn protection of hoggets

Field studies conducted in New Zealand have demonstrated long term protection against reinfection, even in high challenge situations.

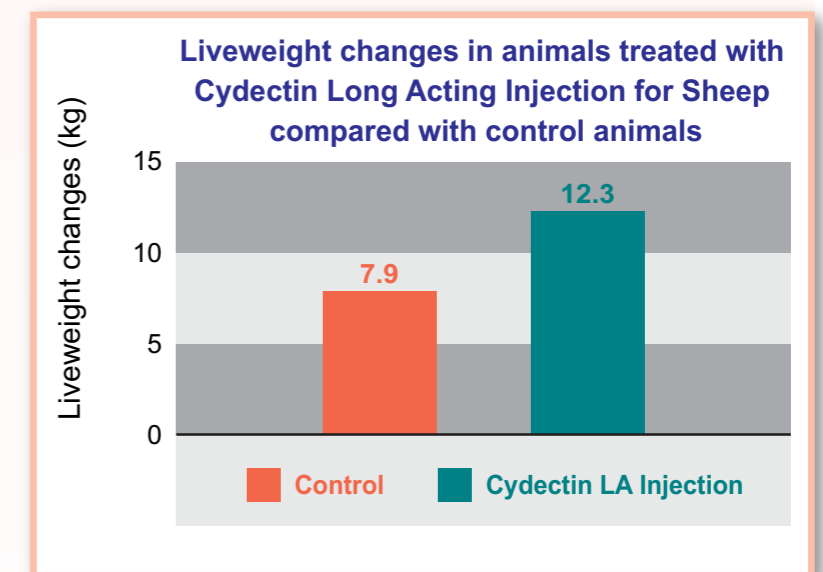
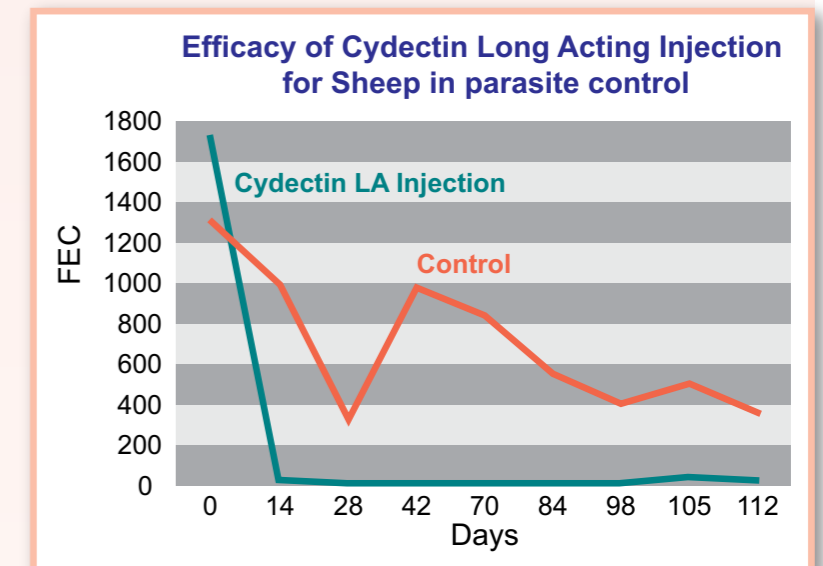
A field study was conducted to demonstrate the efficacy of Cydectin Long Acting Injection for Sheep in eight to ten month old, mixed sex Romney and Romney-cross lambs in New Zealand. Faecal egg counts (FEC) were monitored for 112 days after treatment and compared with controls.

The FECs from the control group showed that a mixture of worm genera was present throughout the trial including *Haemonchus* spp, *Ostertagia* spp, *Trichostrongylus* spp and *Cooperia* spp. A small number of *Oesophagostomum/Chabertia* spp were also present.

**The FEC of the treated lambs demonstrate that Cydectin LA provided exceptional, long term control of a mixed parasite infection under high challenge conditions in New Zealand.**

Weight gains were also monitored during the trial.

There was a 4.4 kg liveweight advantage in the group treated with Cydectin Long Acting Injection for Sheep compared with control lambs after 112 days in this study. This weight gain advantage occurred despite the lambs in the control group receiving a salvage treatment with a dual combination drench.



Trial number 0982-O-NZ-03-04, data on file

### 3 Using Cydectin Long Acting Injection for Sheep in Ewes Prior to Lambing

Controlling parasites in ewes during periparturient period has the benefits of:

- Improved ewe health and productivity resulting in faster growing lambs
- Reducing the ewe's contribution to pasture contamination (to which the young lamb is exposed)

Many tools can be used to determine whether ewes require drenching including monitoring faecal egg counts and body condition scores.

First lambing ewes, those in low body condition and multiple bearing ewes are the groups most likely to benefit from pre-lamb treatment.

Other groups may be left undrenched as contributors to the refugia on the farm.

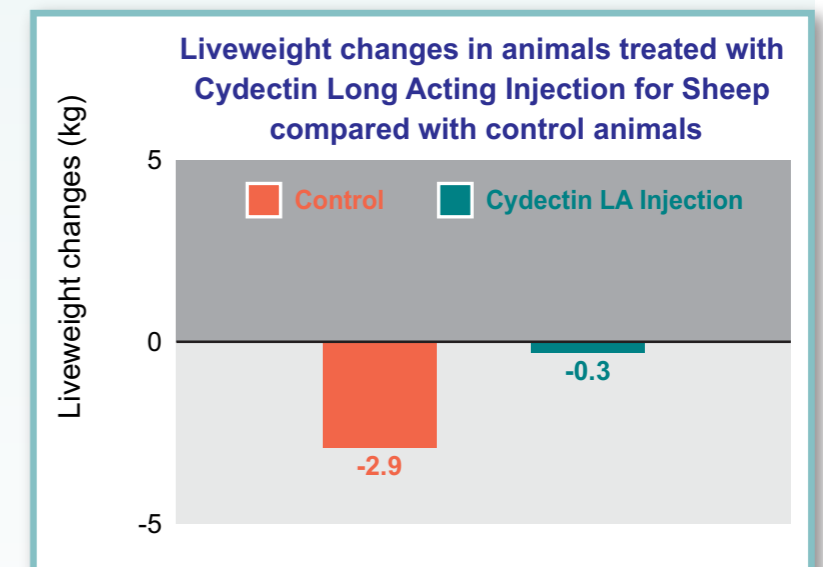
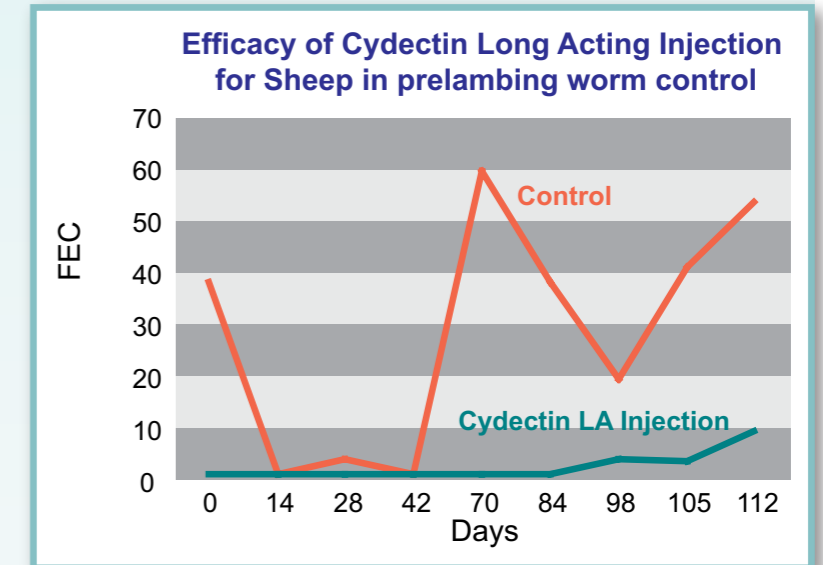
Cydectin Long Acting Injection for Sheep provides a tool to farmers who have a need to drench their ewes prior to lambing with the following advantages:

- It contains the most potent macrocyclic lactone (ML)
- It has very high and proven efficacy against both susceptible worms and those resistant to other drenches including levamisole and benzimidazoles. It has also shown efficacy against a number of ivermectin<sup>2</sup> resistant strains of worm
- It has an extended period of protection ensuring that the ewe is protected during the entire periparturient relaxation period even in years when this occurs later than expected
- The extended protection period offers less ewe generated pasture contamination, longer health and productivity benefits to the ewe which results in better lamb productivity

#### Field Trial – Prelambing treatment

A field study was conducted to demonstrate the efficacy of Cydectin Long Acting Injection for Sheep as a pre-lamb treatment in two-tooth lambing ewes. The ewes were treated prior to lambing and their FEC monitored for 112 days following treatment. The FEC graph shows that the treated ewes maintained a lower FEC throughout the 112 day period compared to the control group.

Weight gains were also monitored during the trial. Despite a relatively low challenge (control average FEC 26 egg over the duration of the study) the ewes drenched with Cydectin Long Acting Injection for Sheep lost 2.6 kg less bodyweight than the control ewes over the course of the 112 day study (during which they lambed).



Trial number 0982-O-NZ-01-02, data on file



<sup>2</sup> As moxidectin shares a similar mechanism of action to the avermectins, it should not be used where avermectin resistance is present, except where specially recommended by an advisor.

# Cydectin Long Acting Injection Product Information

## Dosage

Weight Range (kg)	Dose Volume (mL)	Doses Per Pack (500 mL)
20*	1	500
21-30	1.5	333
31-40	2	250
41-50	2.5	200
51-60	3	166
61-70	3.5	142
71-80	4	125
81-90	4.5	111

Cydectin Long Acting Injection for Sheep is ready to use in a 500 mL pack. The dose rate is 1 mL per 20 kg (liveweight)

\* Do not use in lambs less than 20 kg liveweight. Animals heavier than 90 kg to be dosed at 0.5 mL per 10 kg

## Withholding Periods

**MEAT:** Sheep producing meat or offal for human consumption must not be sold for slaughter either during treatment or within **91 days** of the last treatment.

**MILK:** Milk intended for sale for human consumption must be discarded during treatment and for not less than 180 days after treatment.

## Administration

Cydectin Long Acting Injection for Sheep is administered by subcutaneous (under the skin) injection at the base of the ear or high on the neck behind the ear.

It is important to administer Cydectin Long Acting Injection for Sheep ONLY with the specially designed injector, available where this product is sold. Normal hygiene requirements prior to and during administration should be met to avoid infection or site reactions (see label).

## Protection Period

A single treatment of Cydectin Long Acting Injection for Sheep at the recommended dose rate prevents reinfection of sheep as in the following table.

Protection	Prevents reinfection
<i>H. contortus</i>	91 days
<i>T. (O.) circumcincta</i>	112 days
<i>T. colubriformis</i>	42 days

The protection period may vary from the times stated. Where resistance exists, protection periods may be shorter than those stated. Some field studies have shown that a longer protection period may be achieved.

## Pack Information

### Safety

Cydectin Long Acting Injection for Sheep has a wide margin of safety when used as recommended.

### Concurrent Treatments

Cydectin Long Acting Injection for Sheep is safe to use concurrently with other treatments, including mineral supplements and vaccines (including footrot vaccines). It is recommended that vaccines are injected on the opposite side of the neck to Cydectin Long Acting Injection for Sheep.

### Contraindication

Not recommended for use in goats as safety and efficacy have not been evaluated.

### Avoiding Carcass Damage

- Rinse all injection syringes, ensure needles and draw off tubes are free of dirt and unused product before and after use
- Sanitise plastic injection apparatus by immersing in 500 mL of water plus 20 mL of household bleach (4% w/v available chlorine) for 1 hour. Flush with cool boiled water before use
- Maintain cleanliness at all times
- Keep needles sharp and clean, replace frequently
- Avoid injection of animals during wet weather or under dusty conditions as far as possible
- Inject the product under the skin, NOT into the muscle tissue
- Inject at the base of the ear or high on the neck behind the ear

## Resistance Management

Check dose rates and equipment before treatment commences. Check accuracy of injectors regularly. A representative sample of animals should be weighed before treatment to ensure the correct dose rate is used. Dose the mob to the heaviest animal by liveweight in each group (ewes, wethers, rams, lambs, etc.). Do not underdose.

Resistance may develop to any anthelmintic. Ask your local veterinary practitioner or animal health advisor for recommended parasite management practices for your area to reduce development of resistance. It is advisable that a resistance test be conducted regularly when using any parasite treatment.



Administer Cydectin Long Acting Injection for Sheep subcutaneously (under the skin) at the base of the ear or high on the neck behind the ear



Administer Cydectin Long Acting Injection for Sheep ONLY with the specially designed injector

## Indications

Cydectin Long Acting Injection for Sheep is effective against sensitive strains of the following parasites:

### Gastrointestinal Parasites Adult and immature (L4)

- Haemonchus contortus* (barber's pole worm)
  - Ostertagia (Teladorsagia) spp.* (small brown stomach worm)
  - Ostertagia circumcincta*
  - Ostertagia trifurcata*
  - Trichostrongylus axei* (stomach hair worm)
  - Trichostrongylus spp.* (black scour worm)
  - Trichostrongylus colubriformis*
  - Nematodirus spp.* (thin necked intestinal worm)
  - Nematodirus filicollis*
  - Nematodirus spathiger*
  - Cooperia spp.* (small intestinal worm)
  - Cooperia oncophora*
  - Strongyloides papillosus* (intestinal threadworm)
  - Oesophagostomum venulosum* (large bowel worm)
  - Chabertia ovina* (large mouthed bowel worm)
  - Trichuris ovis* (adults only)
- Inhibited (or hypobiotic) larvae of *Haemonchus*, *Ostertagia* and *Trichostrongylus*

### Lungworm (Adult and immature)

*Dictyocaulus filaria*

### Nasal Bot

*Oestrus ovis*

### Itchmite

*Psorergates ovis*