



## What should I be thinking about prelamb?

### Clostridial Vaccines

**WHY:** To help prevent ewe sudden death in late pregnancy and to protect the lamb for a period after birth from clostridial diseases, including tetanus and pulpy kidney.

### Trace Elements

**WHY:** Certain trace elements are crucial for optimal lamb health (selenium) and in driving the dam-lamb bond (iodine).

### Parasite Prevention

**WHY:** Ewes can have reduced immunity against parasites if 'stressed' in the period immediately after lambing, (factors include nutrition, body condition and multiple lambs) so you need to have a plan in place, combining management tools and products, to reduce the impact of this.

## Monthly Reminders

- + Watch older working dogs for signs of arthritis.
- + Get your prelamb orders in now.
- + Cows/Hinds not scanned, book in ASAP.
- + Remember Nitrate tests can be done in clinic for suspect feeds.
- + Get lice products sorted for shearing.

# Sheep & Beef News

**JULY  
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## **In this issue:**

- + Things to think about Prelamb
- + Lice in sheep
- + Monthly Reminders

**VET + ENT**

# Lice in Sheep

**By using the right product at the right time and applying it correctly at the right dose rate, you can ensure that your flock is getting the best lice control.**

It's very easy when you notice you have lousy sheep to blame the neighbour, but the most common reason is that they weren't all removed the last time you treated. This is due to how lice work:

1. Lice cannot jump or fly. They get onto a sheep by crawling from one sheep to another, typically when a mob is in the yards.

2. Lice will only survive a few days off a sheep in ideal conditions e.g. on the rails in the woolshed or on moccasins. They will only last a few hours on wool caught on a fence.

3. Lice are slow to build up numbers but females can live for nearly 2 months. With approximately monthly monitoring by lice counting it took about six months to start finding lice in the mob.

4. Despite having effective chemicals available, it is almost impossible to eradicate lice. It didn't happen after 140 years of statutory dipping with nasty chemicals and plunge dipping. It is not going to happen now with nicer chemicals and fast, modern application methods. It only takes one adult lice on one sheep to keep the lifecycle going. We are aiming for lice control, not lice eradication.

## **Why does dipping appear to fail sometimes?**

**There are four reasons you may be seeing lice in your sheep shortly after treatment:**

1. The wrong product was used.
2. The product wasn't applied appropriately.
3. Treated sheep have been exposed to untreated sheep.
4. The lice are resistant to the product.

### **1. Wrong product:**

Different products have different label claims depending on length and type of wool. No matter how well you apply a product if there is too much wool, especially if it is fine wool, the product will not be able to work

effectively. Treat immediately off-shears to get the best result from your dip.

Remember that the IGR's (actives are diflubenzuron or triflumuron) only kill developing lice as they moult, so any adult lice survive.

### **2. Incorrect application:**

Products must be applied strictly according to label directions. Poor application is the most likely reason for dipping failure, regardless of the method or chemical being used.

#### **With pour-ons we can see:**

- + Under-dosing when the assumed weight is wrong or the gun isn't working properly.
- + The wrong gun being used.

#### **Poor coverage due to poor application technique.**

**With saturation dipping and jetting races we can get under-dosing when:**

- + The volume required to saturate the sheep is underestimated or is not applied when sheep run through too fast or let out too soon.
- + The volume of the dip sump is wrong.
- + The mixing rate is wrong.
- + When recycled wash water is used and the chemical is not re-charged.
- + Only the nozzles for fly control are used, meaning the underside of the sheep isn't covered.

### **3. Mixing of treated and untreated sheep:**

Untreated sheep (including lambs at foot) provide a source of lice, and with some pour on products it can take several weeks for all lice to be killed. When using an IGR it will not kill adult lice. Try to maximise the effectiveness of the lice programme by:

- + Clean musters.
- + Keep strays out.

- + Quarantine newly purchased sheep.
- + Avoid split shearing or keep stock shorn at different times separate from each other.
- + Don't treat ewes with lambs at foot (unless the lambs are also treated).
- + Don't treat pregnant ewes within 6 weeks of lambing.
- + Remember it takes about four weeks for any pour-on product to kill all lice.

#### 4. Resistance to product:

Mother Nature has given some lice the ability to survive dip chemicals. Resistance develops when lice are exposed to a dip and some survive to go on to breed. If we keep using the same chemical or chemical group, these resistant lice will survive and breed, increasing their numbers until they make up the majority of the population. (See graph below for chemical brands and group names.)

Resistance to the synthetic pyrethroids has been identified in NZ since the 1990's. Resistance to the IGR's has been confirmed in Australia ten years ago and is suspected in NZ.

Slowing the development of resistance involves obeying the basic principles of lice treatment - Use the right product at the right time and apply it correctly at the right dose rate. Other strategies include:

- + Avoid mixing treated and untreated sheep (including lambs at foot). While there is still protective levels of chemical in the treated sheep this is not an issue except adult lice when an IGR has been used. However, when chemical levels start to drop in the treated sheep, lice that transfer may be able to survive and go on to breed a more resistant lice population.
- + Rotate products from different chemical groups for consecutive treatments. Remember that there may be several different products within a group so changing product name may not be changing chemical group (See graph below for chemical brands and group names).
- + If possible, use products from different chemical groups for controlling lice and flystrike in the same year.
- + Avoid using long wool treatments where possible as these do not eradicate lice and may allow resistant ones to survive and breed.

Chemical Group	Active Ingredient	Brand Names
Organophosphates (OP's)	Propetamphos	Seraphos 1250
Synthetic Pyrethroids (SP's)	Cypermethrin	Cypercare
Synthetic Pyrethroids (SP's)	Deltamethrin	Wipeout
Synthetic Pyrethroids (SP's)	Alpha-cypermethrin	Vanquish
Insect Growth Regulator (IGR's)	Diflubenzuron	Fleecemaster, Magnum, Zenith
Insect Growth Regulator (IGR's)	Triflumuron	Exit
Spinosyn	Spinosad	Extinosad, Expo Extinosad
Combination	Triflumuron and Cypermethrin	Exit Extreme
Combination	Spinosad and Cyromazine	Cyrex
Combination	Triflumuron and imidacloprid	Zapp Encore

**If you have any questions or concerns about lice control on your property contact the VetEnt team at your local clinic. Each farm is different so talking through lice control for your property is really important to ensure you are getting the best advice possible.**