THE BIMEDA GOLD FLEECE QUICK REFERENCE GUIDE

Sheep Dipping and Ecto-Parasite Control in Sheep

www.bimeda.co.uk
Parasites & Resistance

Which Ecto-Parasites is Gold Fleece Licensed For? ........................................ 3

Sheep Scab

Sheep Scab ................................................................. 4-5
Sheep Scab Diagnosis & Treatment ......................................................... 6
Macrocyclic Lactones & Resistance ......................................................... 7

Blowflies

Blowflies ............................................................ 8-9
Blowfly Strike Treatment ............................................................... 10
Blowfly Treatment Options ............................................................ 11

Ticks

Ticks ................................................................. 12-13
Ticks and Tick-Borne Diseases ......................................................... 14
Tick Prevention Options .............................................................. 15

Keds

Keds ................................................................. 16
Ked Treatment Options .............................................................. 17

Lice

Lice ................................................................. 18
Lice and Transmission of Lice ......................................................... 19
Lice Treatment Options .............................................................. 20
Gold Fleece is licensed for the prevention and treatment of:

- BLOWFLY
- LICE
- TICKS
- KEDS
- & SCAB INFESTATIONS

**Gold Fleece:**
Legal Category: POM-VPS
Active Ingredient: Diazinon 60% w/v
For full product detail, including contra-indications, see the data sheet which is included in this booklet, or see the SPC which can be found on the VMD website
Use Medicines Responsibly. Noah.co.uk/responsible
Sheep Scab
Causes of Sheep Scab

- Sheep Scab is caused by the *Psoroptes ovis* mite
- Population doubles every 6 days
- The female mite lays 1 or 2 eggs daily in the sheep’s fleece for about **40 days**
- Once these eggs hatch it only takes 2 weeks for the larvae to develop into adults.
- The mite can survive for up to **19 days** off the host which is vital to remember when considering how we can tackle this parasite.

Sheep Scab – Clinical Signs

It is impossible to determine, just by looking, if a sheep has lice or scab

Therefore farmers should always get a vet to check itchy sheep. Remember they can have both lice and scab!

Clinical Signs of Scab:

- **Itchy sheep** (they may rub against fence posts or kick their flanks).
- **Poor quality wool** (loss of wool, dirty appearance to wool).
- **Loss of body condition** (due to severe irritation disturbing grazing and as the infection progresses due to illness-infected wounds etc).
- **Wounds** (the mites damage the surface of the skin and cause ‘serum’ to leak out which gives a yellowish or moist appearance to wounds).
Sheep Scab Diagnosis

- Easily confused with lice
- Easy to forget that sheep can be infested with both lice and scab
- Skin scrape recommended to be certain

Sheep Scab Treatment Options

<table>
<thead>
<tr>
<th>GROUP</th>
<th>ACTIVE INGREDIENT</th>
<th>NUMBER OF TREATMENTS REQUIRED?</th>
<th>DO YOU NEED TO MOVE TO CLEAN PASTURE?</th>
<th>DOES ACTIVE INGREDIENT TARGET ANY OTHER ECTO-PARASITES?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organophosphate Dip</td>
<td>Diazinon</td>
<td>1</td>
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<td>Yes</td>
</tr>
<tr>
<td>Macrocyclic Lactones</td>
<td>Ivermectin</td>
<td>2</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Doramectin</td>
<td>1 and move to clean pasture</td>
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<td>No</td>
</tr>
<tr>
<td></td>
<td>Long acting Moxidectin</td>
<td>1</td>
<td>Yes</td>
<td>No</td>
</tr>
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</table>
Macrocyclic Lactones, Resistance & Why Dipping Is Best For Scab

The macrocyclic lactones are a broad spectrum parasite treatment and will also target gastrointestinal worms.

When we use macrocyclic lactones to treat scab, we inadvertently expose internal worms to them.

As worm burdens are typically low during key scab season, we are increasing the rate of development at which worm resistance can occur to the 3-MLS.

Many key advisory groups share these sentiments, for example, SCOPS are concerned about the potential implications of 3-MLS being used for scab in terms of the development of anthelmintic resistance to macrocyclic lactones².

Sheep farm productivity has already been devastated by anthelmintic resistance therefore it is essential we take all measures to slow its rate of development.

**Products which target external parasites only, such as dipping for scab should be seen as the preferred option as part of farmers’ parasite control plans to help eliminate scab.**

Why Is Gold Fleece the Best Option for Scab?

- Dipping targets external parasites only
- Dipping does not increase the rate of development of anthelmintic resistance
- Dipping kills scab mites immediately
- Dipping gives protection against scab for longer than the 19 days that the mite can survive in the environment, thus allowing for complete elimination in closed flocks

- Dipping is the only option which affords broad spectrum ecto-parasite control.
- Cost effective scab treatment - one can treats 800 sheep
- Gold Fleece has the shortest meat withdrawal period for OP dip in UK - **49 days**
Blowfly
**Blowflies**

- Blowflies are the most common ecto-parasite of lambs and surveys suggest that every year 80% of farmers will encounter strike.

- Blowfly strike is a devastating disease which impacts welfare and costs time and money to counteract so it’s important that we anticipate it and protect against it.

- The first wave of flies normally emerge around mid-April but it could be earlier in a particularly mild year. One adult fly can lay up to 3000 eggs in its 28 day life time!

- Blowfly strike occurs when the female fly is able to land on the animal and lay eggs. The flies are attracted to moist, soiled fleeces and wounds. Once laid, the eggs secrete an odour which attracts other flies and rapidly exacerbates the problem.

- These eggs quickly hatch in to maggots and the maggots feed on the dead skin cells and secretions. As they feed, they ‘burrow’ deeper in to the skin, creating wounds, which ‘kills the skin’, providing the maggots with more food and gradually creating bigger and bigger wounds.

- If left to worsen, the wounds will increase in size, become infected and ooze. This will cause the sheep to enter a state of shock and perish. This further complicates the situation as an undetected carcass would be an excellent host for more larvae to develop and exponentially increases the number of flies in the area.

**Blowfly Diagnosis**

Sheep/lambs with the following are most susceptible to blowfly strike:

- Faecal staining of the wool (parasite induced or dietary)
- Open wounds (footrot or shearing injuries)
- Fleece rot
Blowfly Strike Treatment

Clipping of the affected area is vital to see how far the wounds extend, to clean and to ensure that all debris which the maggots can feed on, have been removed.

Treatment with a licensed larvicidal product is then required.

The wounds may be serious and infected, causing the sheep to be systemically ill in which case veterinary intervention is vital to ensure the best outcome.

Blowfly Strike Prevention

Prevention is necessary to reduce the risk - good management and planning is vital, alongside preventative products, to minimise the risk of blowfly strike as far as possible.

- Sheep, even after receiving preventative treatment, should be checked regularly and at least daily in periods of high risk where possible.

- Reduce the incidence of soiling by avoiding nutritional upsets which may cause scouring and have a sound worm control strategy.

- Dispose of carcases quickly to avoid them acting as a source of blowflies.

- Reduce the incidence of foot-rot.

- Yearly shearing of ewes.

- Regular dagging of the fleece.

- Open wounds should be treated and monitored until resolved.

- Pour-on/Dipping is vital on every farm.

- Dock lambs tails
  (Tail docking must be carried out only in strict accordance with the following guidelines. It must be performed by a competent, trained operator and with the use of a rubber ring, or other device, to restrict the flow of blood to the tail. It is only permitted without an anaesthetic if the device is applied during the first week of life.)
## Blowfly Treatment Options

<table>
<thead>
<tr>
<th>ACTIVE INGREDIENT</th>
<th>PRODUCTS</th>
<th>PREVENTION</th>
<th>STRIKE TREATMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cypermethrin</td>
<td>Ectofly, Crovect, Vectocert</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Dicyclanil</td>
<td>Clik, Clikzin</td>
<td>✔</td>
<td>✗</td>
</tr>
<tr>
<td>Diazinon OP Dip</td>
<td>Gold Fleece, Paracide 62</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Deltamethrin</td>
<td>Dectospot, Spot-on, Spotinor</td>
<td>✗</td>
<td>✔</td>
</tr>
<tr>
<td>Alphacypermethrin</td>
<td>Dysect</td>
<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>

## Why Use Gold Fleece Dip to Prevent Blowfly Strike?

- ✔ Dipping offers the most broad spectrum ecto-parasite control of any product
- ✔ Cost Effective - one can treats 800 sheep
- ✔ Efficacy
- ✔ Shortest withdrawal period for OP dip in UK – **49 days**
- ✔ Prevents and treats blowfly strike
Ticks
Ticks are generally active between March and October. However this is weather dependant so in a very mild Spring they can become active earlier and in mild autumn weather they can remain active until later in the year.

Ticks can live for up to three years and only need to feed once per life stage meaning they spend very little time on the host and most of their time in the environment.

They tend to favour dense damp conditions and are abundant in rough grazing and woodland.

The most common species is Ixodes ricinus which is also known as ‘The Sheep Tick’.

Ticks themselves rarely cause severe problems unless they are present in vast quantities in which case they can cause anaemia, particularly in young lambs. The tick can transmit disease from one animal to another which is why they should be counteracted.
TICKS

Ticks

- Active between March & October
- Ticks favour damp, dense habitats
- Spend a very short proportion of their life on a host
- The most common species for UK sheep is *Ixodes ricinus*

Tick-Borne Diseases

**Louping Ill**
Is caused by a virus which is passed from the tick to the sheep. It generally affects lambs and it causes a neurological disease. The animals seem uncoordinated, can seizure and become paralysed and even die.

**Tick Pyaemia**
Is a bacterial infection which occurs when the tick introduces normal bacteria found on the skin in to the blood stream by biting. This can cause septicaemia with widespread bacterial infection throughout the body.

**Tick Borne Fever**
Is caused by a bacteria which suppresses the immune system. If this bacterial infection is contracted alongside one of the others the host will almost certainly die because it cannot initiate an immune response to defend itself.

**Babesiosis**
Is caused by a microscopic parasite which infects the red blood cells and causes them to rupture. Once they rupture the red pigment enters the kidneys and causes red urine hence the name redwater. It’s an uncommon disease and is usually found in cattle rather than sheep.

**Lyme Disease (Borreliosis)**
Cannot infect sheep but can be present in the ticks which feed on sheep. This can be a devastating condition in humans and so it’s important to protect yourself by ensuring your sheep can’t pass these ticks on to you.

Young animals which are grazing rough pastures and have no protection from ticks will be at greatest risk of contracting these diseases.
Tick Prevention Options

<table>
<thead>
<tr>
<th>ACTIVE INGREDIENT</th>
<th>TICKS</th>
<th>OTHER PARASITES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cypermethrin</td>
<td>✔</td>
<td>Blowfly, Headfly, Lice</td>
</tr>
<tr>
<td>Alpha-cypermethrin</td>
<td>✔</td>
<td>Blowfly, Headfly, Lice</td>
</tr>
<tr>
<td>Deltamethrin</td>
<td>✔</td>
<td>Keds, Lice, Blowfly treatment</td>
</tr>
<tr>
<td>Diazinon</td>
<td>✔</td>
<td>Blowfly, scab, keds and lice</td>
</tr>
</tbody>
</table>

Why Use Gold Fleece Dip to Prevent Tick Infestation?

- Treats and prevents
- The most broad spectrum treatment available
- Cost effective
- Efficacy
- Shortest withdrawal period for OP dip in UK – 49 days
- Better penetration in full-fleeced animals than pour-ons.
Keds

- Often mistaken for ticks
- Small wingless parasites of the fly family
- Feed once daily and live up to 5 months
- Transmitted by animal-to-animal contact

**Keds Can Result In:**
- Irritation
- Un-thriftyness
- Anaemia
- Damage the hide & stain the wool reducing its value
- Shearing physically removes a high burden

### Ked Treatment Options

<table>
<thead>
<tr>
<th>ACTIVE INGREDIENT</th>
<th>KEDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diazinon</td>
<td>✓</td>
</tr>
<tr>
<td>Deltamethrin</td>
<td>✓</td>
</tr>
</tbody>
</table>

### Why Use Gold Fleece to Treat Keds?

- Dipping offers the most broad spectrum ecto-parasite control of any product.
- Cost effective- one can treats 800 sheep
- Efficacy
- Keds affected housed, full-fleeced sheep-dip penetrates the fleece better than a pour on/spot on.
- Shortest withdrawal period for OP dip in UK – 49 days
- Prevents and treats ked infestation
Lice

• Only chewing lice are an issue in UK sheep
• The sheep body louse (Bovicola ovis)
• Disrupts feeding patterns, fleece damage, self inflicted trauma.
• chewing lice have robust round heads and feed on skin/hair debris
• The presence of lice in sheep is an indicator of poor biosecurity measures.

Remember!
If your sheep have lice, they are also at risk of getting sheep scab

Transmission of Lice

The lice are spread by direct contact between sheep so they may be introduced by bought in animals or by mixing of animals (e.g. on common grazing or at fence borders with neighbours).

The presence of lice on sheep is an indicator of poor biosecurity on the farm.

If lice are present then the farmer should review the biosecurity measures as they are putting themselves at risk of being infected with sheep scab which is much more sinister.
**Lice Treatment Options**

<table>
<thead>
<tr>
<th>ACTIVE INGREDIENT</th>
<th>LICE</th>
<th>OTHER PARASITES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cypermethrin</td>
<td>✓</td>
<td>Blowfly, Ticks, Headfly</td>
</tr>
<tr>
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<td>Blowfly, Ticks, Scab, Keds</td>
</tr>
<tr>
<td>Deltamethrin</td>
<td>✓</td>
<td>Ticks, Keds, Blowfly treatment*</td>
</tr>
</tbody>
</table>

**Why Use Gold Fleece to Treat Lice in Sheep?**

- ✓ Dipping offers the most broad spectrum ecto-parasite control of any product.
- ✓ Cost effective- one can treats 800 sheep
- ✓ Efficacy
- ✓ Lice commonly affects housed, full-fleeced sheep-dip penetrates the fleece better than a pour on/spot on.
- ✓ Shortest withdrawal period for OP dip in UK – **49 days**
- ✓ Prevents and treats lice infestation