Blackleg Disease

What is Blackleg?
Blackleg is a generally fatal bacterial disease of young cattle or sheep of any age. The disease is seen as acute, localised inflammation of muscle tissue due to the growth of the blackleg organism. This is followed by generalised toxaemia or poisoning of the animal causing rapid death.

What causes Blackleg?
Blackleg is caused in most cases by the bacterium, Clostridium chauvoei. Clostridium septicum or Clostridium novyi are less common causes. The bacterial spores can survive in soil for many years. Spores are ingested from pasture by the animal, they then enter the bloodstream and lodge in the muscle where they can remain dormant without causing ill-effect.

In cattle, unknown ‘triggering’ factors cause the organism to germinate, multiply and cause the onset of blackleg although outbreaks following handling and associated bruising are common. The disease is more commonly seen in young, rapidly growing cattle or cattle on a high plane of nutrition. The organism has been documented to also damage heart muscle and diaphragm resulting in clinical signs not usually associated with this disease.

Symptoms:
There is a sudden onset of fever, depression and a loss of appetite. If the affected muscles are in the leg, the animal will become lame. The leg may be swollen, hot and painful in the affected area. Limb muscles are the most common site of infection although muscles anywhere in the body, such as the tongue, can also be involved. A crackling sensation may be noted, when the skin over the affected area is pressed; this is due to gas formation in the tissue.

How do we treat it?
Vaccination is the only effective way to control blackleg and we use Ultravac® 7in1.

Ultravac® 7in1

Ultravac® 7in1 vaccine is used to prevent leptospirosis and the major clostridial diseases in cattle.

What’re the key benefits?
Ultravac® 7in1 is used to prevent the common types of leptospirosis which affect cattle (and can also be transmitted from cattle to people) as well as prevent the major life-threatening clostridial diseases that commonly can occur in cattle.

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Approved Uses:

Ultravac®7in1 is used for the routine immunisation of cattle for the prevention of:

- Enterotoxaemia (pulpy kidney disease)
- Tetanus
- Black disease
- Malignant oedema (blackleg-like disease)
- Blackleg
- Leptospirosis (L. Hardjo and L. Pomona)
- For the prevention of urinary shedding of the named leptospires in cattle when used prior to natural exposure and to prevent the risk of human leptospiral infection associated with the shedding of the named leptospires in the urine and from the reproductive tract of cattle.
- For the prevention of reproductive tract colonisation and placental and foetal infection with L. Hardjo.

Why we use it:

Global studies have indicated that Zoetis’ leptospirosis vaccines are equal to, if not the best in the world.

- Ultravac® 7in1 is based on the strain of L. Hardjo prevalent in Australia – Leptospira borgpeterseniiserovar Hardjo type hardjo-bovis as well as Leptospira interrogans serovar Pomona.
- Ultravac® 7in1 vaccine provides unique protection by preventing the shedding of leptospires L.Hardjo and L. Pomona in the urine and from the reproductive tract. This means that as well as the animal being protected from the productivity losses associated with leptospirosis, the vaccine also prevents the animal from contaminating the environment and placing unvaccinated cattle and people at risk.
- Ultravac® 7in1 can be used from 6 weeks of age (or from 4 weeks of age when the risk of infection is high to provide early age protection – refer to product label for additional advice). This ensures early protection after two initial doses and provides effective year long protection. A single annual dose is all that is required to provide on-going annual protection, without the need for six-monthly booster doses. Note that additional doses of Ultravac® 5in1 may be required to maintain immunity to enterotoxaemia (pulpy kidney). These are given prior to seasonal challenge and advice from your local veterinarian is recommended.

Only Ultravac® 7in1:

- Protects you, your cattle, your family and your workers – by preventing shedding of leptospires when used prior to natural exposure, stopping the spread of leptospires.
• Keeps the unborn calf safe and sound – by preventing reproductive tract colonisation and placental and foetal infection by L. Hardjo

• Can be used in calves from 4 weeks of age to provide early age protection.

• Has a low volume 2.5mL dose to minimise the chance of site reactions.

• Can be used for up to 30 days after opening (provided storage instructions are followed) for added convenience, longevity and to easily fit in with farm management practices.

What pack sizes are available?

<table>
<thead>
<tr>
<th>Pack Size</th>
<th>Dose – Cattle 2.5mL</th>
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</thead>
<tbody>
<tr>
<td>50mL</td>
<td>20 doses</td>
</tr>
<tr>
<td>100mL</td>
<td>40 doses</td>
</tr>
<tr>
<td>250mL</td>
<td>100 doses</td>
</tr>
</tbody>
</table>

Dosage and Administration

<table>
<thead>
<tr>
<th></th>
<th>1st Dose</th>
<th>2nd Dose</th>
<th>Booster</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calves</td>
<td>From 6 weeks</td>
<td>12 weeks</td>
<td>Annually</td>
</tr>
<tr>
<td>Previously unvaccinated cattle</td>
<td>From 6 weeks of age</td>
<td>4-6 weeks later</td>
<td>Annually</td>
</tr>
</tbody>
</table>

When the risk of infection is high, the vaccination of calves can start from 4 weeks of age. However if the initial two doses are completed before 3 months of age then an additional dose should be given 6 months later, then annually.

Stabler and Howlett would like to thank our partners at Zoetis for their assistance in compiling this post. We recommend and sell the Zoetis range of cattle vaccines.