

Winter 2022 Cattle Health Update – Hunter Region

July 2022

This is an updated version of the wet weather advisory newsletter that we issued in April 2022, with additional information about stomach fluke (paramphistomes) and yersiniosis ('flood mud scours'). Owners of cattle that have developed lameness problems in these wet conditions are directed to page 4.

The challenging wet conditions are seeing a spike in some animal health issues which we would like to share with you to assist your stock health and production targets throughout winter.

A series of recent cases across Hunter LLS highlights that many herds have similar animal health challenges because of the sustained wet conditions. Many producers are reporting that their cattle just don't seem to be doing well. Breeders are dropping in condition and weaner and yearling cattle just aren't thriving or worse are going backwards. This is a risky situation as we head into winter and a winter feed gap.

HLLS District Vets have found a couple of common themes underlying these production set-backs and stock losses. We hope this information helps you to assess your herds for these potential impacts:

1. Worm burdens causing grief across the region
2. Reduced pasture quality affecting stock condition
3. Managing rain scald
4. Identifying and managing lame stock
5. Wet weather increases clostridial disease risk including tetanus.
6. Yersiniosis cases ('Flood Mud Scours') expected to occur

GIT worm burdens causing grief for many herds

Faecal egg counts are showing very high worm burdens. We are seeing burdens upwards of 1000 eggs per gram (epg) and often 3,000/5,000 and 10,000 epg in young cattle. This includes dairy heifers, weaner and yearling beef animals. Production losses, in terms of reduction in daily weight gain, start to occur when Barbers Pole burdens reach 200 epg, Brown Stomach Worms at 150 epg and black scour at 50 epg.

While infections are often mixed worm species, Barbers pole worm is often in the majority. This is the blood sucking worm. Thus cattle don't scour but they look ill-thrifty, they are anaemic, lethargic or even weak and recumbent. If not dewormed, burdens escalate and have caused young stock to go

down and die. In some cases stock are also scouring as more of the scour worms join in. Please assess your stock for worm burdens and consider your deworming needs.

A number of factors seem to be involved.

- normal drenching routines have been upset by flooding and wet paddocks making it difficult to yard stock for routine drench treatments,
- normal paddock rotations have also been affected and stock are forced to graze on a limited number of “drier” paddocks, but these paddocks are more heavily stocked and therefore worm larvae contaminated. Stock are also forced to graze lower where larvae live.
- Single active “mectin” drenches have been used which can be less effective than combination drenches through drench resistance. This is now documented on properties in our area.
- Drenches which are primarily for Liver fluke have been used but a combination drench for roundworms is required.

If any of these situations sound familiar, please have a look at stock worm burdens. Faecal egg counts (kits available from HLLS) are a reliable indicator of burdens in young stock under about 15 months of age and if drenching is indicated please reach for a combination roundworm drench.

There are now varying levels of drench resistance to our main problem worm species across mectin drenches but also sometimes clear and white drenches. If you are unsure of the resistance profile on your farm a combination drench for roundworms is the best option. Fluke burdens should also be considered.

In addition to liver fluke, we are also finding that many cattle on wet country are developing large burdens of stomach fluke, also called paramphistomes. The migrating juvenile form of the paramphistome can cause diarrhoea and serious, even fatal, damage to the small intestine in young cattle. Advice from parasitologists suggests that an adult paramphistome burden in the rumen which results in a faecal egg count of greater than 200 eggs per gram of faeces will also be causing weight loss. We are seeing cases where the faecal egg count exceeds 700 or 800 eggs per gram, which is a reflection of the fact that these very wet conditions suit the survival of paramphistomes and their host snail very well. There is presently no drench registered for use against paramphistomes, but the oral drench Nilzan LV has been used as an off-label treatment for paramphistomes under veterinary advice. Owners of cattle, especially ill-thrifty weaners and yearlings on low lying paddocks which appear not to have responded to worm and liver fluke drenching and provision of decent feed, are advised to undertake a worm test to check that their drench was effective against worms and liver fluke, and to specifically investigate whether they have a paramphistome burden which warrants specific treatment. Please consult your private or LLS vet about conducting such a worm test and filling out the submission form appropriately, as older versions of the worm test kits didn't offer an option of checking for paramphistome eggs.

Sub Optimal Stock Nutrition from wet weather, soggy ground, spoilt feed.

The other factor at play is that Stock may not be receiving the nutrition they normally would.

- Stock have been standing around eating less during the extended periods of wet weather. Lameness is also an issue. Wet ground and sore soft feet on tracks and possibly foot bacterial infection.

- Pasture feed has a very high water content and thus stock may not be getting the protein and energy levels they need for growth.
- The lush high moisture content pasture maybe moving through the Intestinal tract too quickly for nutrient absorption.
- Water damaged silage might also be being fed out. This will have reduced nutrient content and potentially bacterial and fungal contamination that all create an immune system cost when consumed by cattle. This plays out as reduced weight gain or concurrent infections such as pneumonia, eye and skin issues. If you are unsure of silage quality, we can help you with silage testing.

If your stock are scouring and you are not sure if the cause is worm burdens or high water content feed, please do a faecal egg count of young stock. If worm burdens are low, try feeding hay to see if that helps slow intestinal transit time. Putting hay out in paddocks when there is a lot of grass might seem wasteful but stock are often chasing fibre.

If your breeders have dropped in condition weaning the calves onto good pasture and /or supplementary feed is a good option. We need to keep all breeders at least in body score 2.5-3 so that they can cycle and maintain the next pregnancy. Some producers, particularly those that yard wean, have delayed weaning due to the wet boggy nature of yards. If this is the case, breeders will need supplementary feed (grain supplementation) to maintain their condition and or creep feeding the calves. Fence line weaning with nose rings is another option if yards are unusable.

As we move into winter please contact us if we can help you with animal health concerns, fodder budgeting, pasture management etc. Veterinary, agronomy and livestock advice is available from HLLS staff. Faecal egg counting kits and fodder analysis bags are also available from all HLLS offices and our District Vets are keen to talk about worms and drenching and to arrange a farm visit to help trouble shoot any animal health concerns.

Rain Scald

Rain Scald is a bacterial infection of the skin affecting cattle, sheep, goats and horses. It most commonly occurs in young or immunosuppressed animals, or those that have been exposed to extended periods of wet weather.

Animals initially present with waxy matted tufts of hair/wool, that join together to form a crust or scab, leaving the skin underneath moist and raw. Lesions are typically found along the topline, extending down the sides of the animal.

Most animals recover spontaneously within 3 weeks of the initial infection, however more severe or chronic infections require intervention.

Affected areas should be gently washed with a mild disinfectant shampoo or solution e.g. chlorhexidine or povidone iodine. Remove as many scabs as possible without causing excessive trauma or discomfort, wear gloves and protective clothing as we are also susceptible to infection. The skin should be allowed to dry completely before the application of a topical wound spray/powder or ointment. If the skin cannot be kept dry with clearing weather or shelter the application of zinc ointment, paraffin oil or Vaseline is useful to waterproof the skin.

Managing lame stock

High rainfall and continuously wet muddy conditions will soften livestock feet and the skin between the toes (interdigital space) making their feet much more susceptible to injury, infection and consequently lameness. There are a multitude of environmental bacteria that gain access through the broken skin of the interdigital space, between the hoof wall-sole interface (white-line), through sole penetrations or cracks in the softened hoof wall.

Lameness in livestock will often quickly progress to swollen, hot feet with a foul smell, the animal is reluctant to move and may hold up the infected foot, go off their food, develop a fever, reduced milk yield and lose condition.

Taking a rectal temperature of affected animals will sometimes confirm that they are seriously ill, and require veterinary intervention, as antibiotic therapy is often indicated. (Normal rectal temperature of a cow in winter would generally not exceed 38.5 °C, but severe foot infections can result in temperatures well in excess of 40 °C).

While their feet are soft, cattle are prone to bruising of the sole if walking over rocks or concrete. A sole bruise is a collection of blood between the animal's sole and the underlying bone. If that blood becomes infected, the bruise becomes an abscess (i.e. a collection of pus). Foot abscesses in cattle are very painful and can be difficult to treat. They respond best to draining, often requiring veterinary assistance or input from the expert cattle farriers who operate in dairy areas where foot problems are common. Left untreated, the pus will sometimes make its way to the surface at the coronet (where the hoof joins the skin), providing relief. Unfortunately, sometimes the deep tissues in the foot, including the bone in the claw (called the pedal bone) become intractably infected.

Where possible, try and move stock to drier paddocks. We understand that this is not always possible, but movement out of paddocks with rough surfaces, potential hazards that could cause injury to the feet and fencing off any muddy portions of the paddock or areas that are very rocky could also be an option. After these rain events the softer topsoil is often washed away, exposing larger more damaging rocks that increase the risk of injury. If you are moving stock, be patient and move stock slowly as their soft feet are more sensitive and they will be cautious where they place their feet. If they are pushed too rapidly, they increase their chance of injury and lameness.

It is important that lame animals are identified early. Examine your cattle walking.

- Is their stride even?
- Are they walking at a normal pace or are they slow and carefully placing their feet?
- Are they weight bearing evenly on all feet?
- When they walk, is their backline even at all times and is their head held roughly level with the backline and is steady (not bobbing)?

If the answer to these questions is no, then further investigation is warranted. Feet should be examined, hooves cleaned and trimmed and treated by your private veterinarian before the lameness progresses.

When livestock are supplementary fed in confined dry areas, they will receive a change of diet. A sudden increase in concentrate feeds (pellets and grains) can upset the rumen bacteria leading to inflammatory disease and lameness. All dietary changes should be made gradually, and dietary changes considered as a source of lameness.

Reminder to Vaccinate

With the change in season, it is important to remember to vaccinate your livestock. A booster of 5 in 1 or 7 in 1 for cattle and 5 in 1 or 6 in 1 for sheep provides important protection against deadly clostridial diseases. These vaccines protect your animals against pulpy kidney (enterotoxaemia), tetanus, black disease, malignant oedema and blackleg. Vaccination is a cheap insurance policy. All vaccines require two doses given 4-6 weeks apart followed by boosters every 6-12 months. More regular boosters may be required to prevent against pulpy kidney, as the vaccines only provide protection for three months, so it is recommended to give a booster every time there is a change in feed, such as the introduction of grain/pellets or changing to a different pasture type.

It is also recommended to vaccinate pregnant animals 4-6 weeks prior to calving or lambing. This provides the newborn with protection via maternal antibodies from the colostrum, until they are old enough to receive their first vaccination.

This is a four week old calf that died from tetanus, (evident by the stiffness and hyperextension of the neck and limbs). Although most calves do not receive their first vaccinations until they are six weeks old (lambs at three to four weeks of age), if the cow had been vaccinated prior to calving, this calf would have had some protection. This calves' mother had never received a vaccination.

Yersiniosis (Flood Mud Scours) in cattle

Flood Mud Scours or Yersiniosis can cause a severe diarrhoea and death in cattle

It is often seen in winter and early spring in cattle grazing wet, waterlogged or recently flooded pastures. Often several cases are seen over a short period on properties when conditions are favourable for the bacteria.

Cause

Flood Mud Scours is caused by the bacteria *Yersinia pseudotuberculosis*. The bacteria can be carried by a range of animals including cattle, rodents and birds. Animals shedding the bacteria in their faeces contaminate pastures and the bacteria can survive for long periods and multiply in water at low temperatures.

Animals that are stressed from concurrent low nutrition or parasite burdens are more likely to be affected by yersiniosis.

Clinical Signs

Occasionally animals will be found dead without showing prior clinical signs. However, more frequently cattle will become depressed, off feed and develop a profuse watery, foul smelling diarrhoea. Affected cattle become dehydrated and often become recumbent. Death usually occurs within 3-5 days.

A post mortem examination reveals swelling of the intestinal lining, and watery foul smelling gut contents. The diagnosis can be confirmed by submitting faecal samples to the laboratory and culturing the bacteria.

Treatment

Early treatment with an appropriate antibiotic will save many animals. However, when treatment is delayed it is much less successful. Antibiotics are restricted substances and as such must be prescribed by a veterinarian; withholding periods for meat and milk apply.

Isolation of affected animals from the rest of the mob is recommended. Frequent observation of cattle grazing high risk paddocks is recommended to enable early treatment.

For further information contact your local LLS District Veterinarian or private veterinary practitioner.

HOW TO CONTACT YOUR DISTRICT VET:

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