Disease risk from flood waters and flooded pasture

It is important to inspect livestock on a daily basis to identify and respond to the range of health issues that can occur following a flood.

Flooded pastures can be contaminated with silt and debris. This poses a variety of health risks for livestock and people.

High levels of bacterial contamination in flood waters and deposited silt pose a particular risk as wounds or breaks in skin can quickly become infected.

However, **a lack of feed quantity and quality** is also a major threat to livestock health and welfare. A key consideration in this early recovery stage is the availability of feed on farm and whether stock should be sold or retained and supplementary fed.

Many Hunter stock on flood affected pasture will require some form of **supplementary feeding**. This is both a financial and time cost that needs careful consideration.

Stored and standing feed might also be flood affected. Feeding mouldy hay can cause livestock health issues ranging from production loss to death.

Consumption of rotting pasture is also a risk to livestock as botulism can cause muscle paralysis.

Water that is tainted with silt and mud may cause problems. Be on the lookout for algal blooms and polluted dam water.

When pasture quality and quantity is low **plant poisoning** can also arise. From sheer hunger, livestock might consume some of the poisonous plants common to the Hunter such as green cestrum, bracken fern or lantana. Adequate available feed is the best preventative measure.

Many pasture species can also grow rapidly after floods and can concentrate nitrate and cyanide causing **sudden death syndrome**. If an animal dies from unknown causes, remove stock from access to the offending plant. Your Hunter LLS District Veterinarian can help identify these issues.

Sudden consumption of green lush feed or a change in feed can cause bloat or issues with **clostridial bacteria** and deaths due to pulpy kidney.

Floods can also bring clostridial spores to the surface that can cause deaths from blackleg. Giving stock a 5 in 1 booster vaccination is a key preventative measure that is cheap insurance against clostridial diseases.

Floodwaters can also bring about an **increase in insect and insect borne diseases** and an **increase in fly populations** which can also spread disease. Be on the watch for an increase in pink eye and diarrhoea in livestock.

Worm larvae can survive much longer on pasture in moist conditions and parasite burdens may increase rapidly. Therefore the recommended Hunter district Autumn drench and worm test is particularly important to avoid production losses from worms in Winter and Spring.

If caught early many of these diseases can be treated with veterinary attention. Inspecting animal health on a daily basis is the key.

Contact your local veterinarian or Hunter LLS District Veterinarian for more detailed information on the risks and diseases. LLS staff are available to assist you to develop a livestock health recovery plan.

Livestock conditions to look out for after floods

Disease Condition	Signs	Prevention treatment
Blackleg and Pulpy kidney (Clostridial disease)	Sudden death from infected wounds and change in feed.	Vaccine 5 in 1 or 7 in 1
Leptospirosis Bacterial infection	Abortion in cattle and calf illness.	Vaccinate with 7 in 1
Foot abscess/footrot	Lameness, affected foot may be swollen, red between the toes.	Veterinary treatment
Swollen legs	Swollen legs from cuts and abrasions or standing for long periods.	Veterinary treatment
Mastitis	Udder red swollen hot.	Veterinary treatment
Pneumonia	Periodic coughing, inappetant followed by death.	Veterinary treatment
Woody tongue	Hard, protruding tongue may have abscesses around the head and neck.	Veterinary treatment
Flood scours	Yersinia infection, which causes an explosive diarrhea followed by death. It is also called flood mud scours.	Veterinary treatment
Salmonellosis	Bloody diarrhea followed by death.	Veterinary treatment
Botulism	Animals can't get up. This looks like milk fever. Very low muscle tone. Results from eating rotten vegetation.	Veterinary investigation. A preventative vaccination is also available.

Livestock survival plans

It is wise to have a survival plan for your livestock in place which lists the actions that should be taken before, during and after an event such as floods and fires.

Having a livestock survival plan is an important part of flood preparedness, which has been reinforced by significant stock losses recently.

A livestock survival plan ensures livestock have constant access to higher ground and that a nominated person is available 24-hours a day to shift livestock in the event of flood warnings being issued.

These plans are critical for absentee landholders and landholders in flood-prone country.

Identify the hazard events that have happened or could happen in your area and use these to develop your plan.

Hunter LLS staff can assist land managers to prepare a livestock survival plan for their property.

Flood water risk to humans

Dirty water, mud and silt that is left behind after a flood can cause a variety of human health issues. Floodwater and contaminated soil can harbour a range of diseases including leptospira and Ecoli bacteria that can cause disease in both humans and livestock.

Leptospirosis disease can occur in association with flood water contaminated with infected animal and rat urine.

The bacteria usually enter through small breaks in the skin. It can cause a flu-like illness but sometime more serious ongoing illness can occur.

To avoid human health issues:

- Avoid accidentally ingesting dirty water, splashing it into the eyes and mouth or on breaks in the skin which can become infected
- Avoid swimming or wading in flood water. Cover cuts and abrasions with waterproof dressings, especially before coming into contact with soil, mud or flood water
- Wear footwear outdoors, especially when walking in mud or moist soil
- Wear gloves when gardening and clearing debris
- Control rodents by cleaning up rubbish and removing food sources that are close to housing
- Do not feed raw offal to dogs
- Wash hands with soap, as Leptospira bacteria are killed by soap and disinfectants.

Hay shed fires

Hay shed fires can occur when hay has become moist. Spontaneous combustion occurs when moist hay heats up due to a combination of natural microbial and chemical reactions.

If enough air (oxygen) is present the moist hay may get hot enough to ignite, with fire then spreading through the stack or shed.

Remove hay that has been wet through flood waters or rain to reduce the risk of fire and further infrastructure damage.

Water-damaged hay can be used for compost but should not be fed to stock as it can result in livestock health issues ranging from production loss to death.

Further information is available on the DPI website:

- www.dpi.nsw.gov.au/__data/assets/pdf_file/0006/299778/hay-shed-fires.pdf
- www.dpi.nsw.gov.au/__data/assets/pdf_file/0010/426574/Buying-hay-or-silage-after-a-flood-fire-or-drought.pdf

Contact us

Contact your local veterinarian or Hunter LLS for more detailed information on flood related livestock disease risks:

1300 795 299