



Sugarcane mosaic virus

Management of buffalo grass yellowing

Yellowing is a very common disease symptom in grasses, caused by many independent agents. It is important to get good diagnostic advice before applying any treatments. Some common causes of buffalo grass yellowing are described below.

Viruses

Sugarcane mosaic virus has become very common in some turf farming districts, and all major buffalo grass varieties are susceptible to this virus. Panicum mosaic virus, the cause of St Augustinegrass Decline, is less prevalent and appears mainly a problem of specific varieties in the Hawkesbury Valley.

How to tell if your crop is suffering from viral infection

Viral infection is characterised by strong leaf mosaic patterns, narrower leaf blades and shortened internodes. Viral infections can only be properly diagnosed using laboratory tests.

Managing viral infection

- Once a plant is infected with a virus, there is no chemical cure. Prevention is paramount and to eradicate, infected plants must be killed using a herbicide.
- Replant badly affected paddocks using certified, virus-free turf. The paddock should be fallowed for 3 months prior to replanting to ensure all living grass is removed.
- To prevent spread between paddocks, mowers blades should be decontaminated using high-pressure water hoses. It is important to remove residual sap on the mower blades.
- Mow when dry to minimise sap-contamination of the mower blades.



Panicum mosaic virus



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Fungi

An undescribed species of *Curvularia* has been consistently isolated from plants suffering from a second form of buffalo grass yellowing. *Curvularia* epidemics are favoured by excessive use of nitrogen fertilizers, prolonged moisture and humidity and the build-up of thatch

How to tell if your crop is suffering from fungal infection

The same type of *Curvularia* can cause brown leaf spots and root rotting. Severe cases of buffalo grass yellowing are associated with poor root health, and the roots of affected stolons are blackened and easily break when the stolon is prised from the mat.

Managing fungal infection

- Monitor soil fertility levels using the testing services of an accredited laboratory, and adjust fertiliser program accordingly.
- Green manuring with Caliente mustard mixes improves soil health by increasing carbon levels and acting as a biofumigant.
- Replant with shredded stolons rather than allowing regrowth from old turf ribbons
- Some fungicides may be effective

Abiotic factors

Yellowing can be caused by abiotic factors such as high salt levels in the irrigation water, micronutrient deficiencies and superheating of the grass caused by layers of grass clippings.

How to tell if your crop is suffering from other factors

Negative diagnostic tests for pathogens will confirm if yellowing is caused by unrelated issues.

Managing abiotic yellowing

- Soil, plant and water tests should be performed to identify deficiencies and act accordingly
- Sweeping or vacuuming paddocks after mowing can reduce yellowing



Buffalo grass yellowing with Curvularia infection



Curvularia yellowing associated with root rot and leaf spot

This factsheet has been developed in consultation with Drs Andrew Geering and Nga Tran at The University of Queensland under the Hort Innovation strategic levy-funded project *Identification and management of mosaic viruses and secondary pathogens in buffalo turf* (TU19000).