



Department of
Agriculture and Food



Pink stained grain and Fusarium Head Blight Frequently Asked Questions

What causes pink stain in grain?

Tests of samples to date have shown a number of causes of pink staining in grain.

These include individual samples which contain yeast, physiological damage and *Fusarium*.

These results are not unexpected due to the unusual seasonal conditions that have occurred.

Has Fusarium head blight been detected on the grain samples to date?

Yes. Further tests have now confirmed the fusarium fungi associated with Fusarium head blight, *Fusarium avenaceum*, *Fusarium acuminatum*, *Fusarium compactum* and *Fusarium crookwellense* have been detected in three barley samples and one wheat sample.

No *Fusarium graminearum*, most commonly associated with FHB toxins, has been found to date.

What is Fusarium head blight?

Fusarium head blight is a fungal disease infecting the heads and seed of cereal grain crops.

Fusarium head blight infection is favoured by wet conditions during flowering and grain fill. It can cause yield reductions and quality defects in grain including discoloured and shrivelled kernels, depressed seed weights, reduced seed quality and vigour and production of fungal toxins.

The fungus infects a range of winter and summer cereals and grasses and can survive on the residues for a number of seasons, particularly under no-tillage. Spores are produced on the crop residues during warm moist weather and are dispersed by wind and rain splash.

Under the right conditions, *Fusarium* can produce mycotoxins in the affected grain. Mycotoxins present in significant levels, can be harmful to animals and humans if ingested in large quantities.

Is the detection of Fusarium species unusual?

The detection of Fusarium species in cereal crops is not unusual, particularly during wet conditions. However, the disease fusarium head blight is not common in cereal crops in Western Australia. It was previously detected on the south coast in 2004 in wheat and barley grain and summer crop residues.

Fusariums associated with plant diseases can be carried in soil, on seed or in contaminated plant material (eg. cereal stubble). Mild and humid conditions generally favour Fusarium growth, similar to many other fungi. In wet conditions, Fusarium contamination of cereal stubble and cereal grain will be favoured.

Will more tests be carried out on grain samples?

The department will continue to test grain samples provided by CBH Ltd for Fusarium species.

CBH will testing affected grain during and post-harvest.

Can farmers still deliver the pink grain to CBH receival points?

Yes, CBH has opened new stacks at Gairdner, Kojaneerup and Cranbrook to allow grain containing pink staining to be delivered into a separate segregation known as BFED 3.

Ongoing testing of this delivered grain will occur over the harvest period to monitor the situation and determine how the grain can best marketed.

Should farmers keep pink seed on farm?

Fungal contaminated grain should not be stored on farm. If grain is stored under high moisture and high temperatures, it creates ideal conditions for fungal growth. Under these conditions, there is a great risk of mycotoxins occurring.

Grain stored on farm with high moisture content should be aerated or stored temporarily on a concrete floor at a depth of not more than one metre and turned regularly with a front-end loader.

Fungal contaminated grain is not suitable for use as seed in next year's cropping program.

Further information on storage of grain on farm is available from the Department of Agriculture and Food website (www.agric.wa.gov.au) or contact Agline on 1300 725 572.

If farmers want to keep seed on farm, what should they do?

The department recommends that farmers deliver pink coloured grain, however if they are going to keep on farm, they should have the grain tested for toxins.

12 January 2009