

Kernel smut

What is it?

Kernel smut is a serious fungal disease of rice that is not present in Australia. This disease reduces grain quality by producing black, masses of powdery spores in the place of the grains endosperm. Some strains of this disease produce toxins.

What do I look for?

Kernel smut (*Tilletia barclayana*) is usually observed at crop maturity, when black pustules of spores push through the glumes, which may swell from the moisture of overnight dew. Spores shed from infected grain settle on other plant parts, forming a characteristic black covering that aids in detection of the disease.

How does it spread?

Spores of the pathogen are transported on infected and contaminated grain, and there may be limited spread by wind.

Where is it found?

Kernel smut is found most rice growing regions, including Burma, China, India, Indonesia, Japan, Korea, Mexico, Philippines, Senegal and southern USA.

Control options?

Ultimately, the best method for control is to prevent kernel smut from ever getting into Australia and the rice growing area.

The best way to prevent the impact of this disease on the Australian rice quality is to report any suspicious looking disease symptoms immediately. Early detection will improve the chances of eradication.



Kernel smut infected rices grains (top) and non-infected grains (bottom).

Photo E. D. Groth, Louisiana State University.

Want more info?

If you would like more information, or to download a copy of the Industry Biosecurity Plan, visit www.planthealthaustralia.com.au, email admin@phau.com.au or phone (02) 6260 4322.

Reporting

Any unusual plant pest should be reported immediately to the relevant state/territory agriculture agency through the Exotic Plant Pest Hotline (1800 084 881). To minimise the risk of disease spread, samples should not be moved until they have been checked by an expert.

This fact sheet was produced as part of the Industry Biosecurity Plan for the Rice Industry.



Rice panicles infected with kernel smut.

Photo M. A. Marchetti.

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