



## Pacific Pests and Pathogens - Mini Fact Sheet Edition

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### Rice brown leaf spot (427)



Photo 1. Early infection of rice by brown leaf spot, *Cochliobolus miyabeanus*.



Photo 2. Infection of rice by brown leaf spot, *Cochliobolus miyabeanus*.



Photo 3. Late infection of rice by brown leaf spot, *Cochliobolus miyabeanus*, showing light grey centres and brown margins.



Photo 4. Eye-spot symptoms on rice grains caused by the brown leaf spot fungus, *Cochliobolus miyabeanus*.

#### Summary

- Widespread. Asia, Africa, North, South, Central America, the Caribbean, Europe, Oceania. In Australia, Fiji, French Polynesia, New Caledonia, Papua New Guinea, Solomon Islands.
- Moderately serious disease of dryland rice and on wild grasses. Affects seedlings and mature leaves, sheaths and panicles. IRRI estimates 5% losses throughout Asia annually, possibly worse where soil deficiencies.
- Yellow-brown or brown spots girdling seedlings; later, spots up to 10 mm, grey centres and dark margins on mature leaves. Seeds with 'eye-spots' fail to fill. Spots on leaves and seeds show black fungal growth.
- Spread in wind and long distances in seed; survival in seed, volunteer rice, debris and grasses.
- Cultural control: treat seed hot water (53-54°C for 10-12 mins); apply recommended rates of fertilizer; collect straw and burn, or plough stubble and straw into soil after harvest; resistant varieties.
- Chemical control: priority is correct nutrition and resistant varieties; seed treatment with iprodione, carbendazim, or stilburin and azole products. Also apply treatments at tillering and booting.

#### Common Name

Rice brown leaf spot. It is also known as glume blotch.

#### Scientific Name

*Cochliobolus miyabeanus*. It is also known by its asexual name, *Bipolaris oryzae*.

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Information from Brown spot. Rice Knowledge Bank. IRRI. (<http://www.knowledgebank.irri.org/training/fact-sheets/pest-management/diseases/item/brown-spot>); and *Cochliobolus miyabeanus*. Wikipedia ([https://en.wikipedia.org/wiki/Cochliobolus\\_miyabeanus](https://en.wikipedia.org/wiki/Cochliobolus_miyabeanus)), and CABI *Cochliobolus miyabeanus* (brown leaf spot of rice) (2018) Crop Protection Compendium. (<http://www.cabi.org/cpc>); and from Graham KM (1971) *Plant diseases of Fiji*. Her Majesty's Stationery Office. London. Photo 1 Yuan-Min Shen, Taichung District Agricultural Research and Extension Station, Bugwood.org. Photos 2-4 Donald Groth, Louisiana State University AgCenter, Bugwood.org

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This mini fact sheet is a part of the app *Pacific Pests and Pathogens*

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