



Pacific Pests, Pathogens & Weeds - Mini Fact Sheet Edition

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Maize boil smut (046)



Photo 1. Seeds of the maize ear transformed into black spore-producing structures of the boil smut fungus, *Ustilago zaeae*.



Photo 2. A few of the seeds have been taken over by the smut fungus, *Ustilago zaeae*, and transformed into black spore-containing galls.



Photo 3. The one-time seeds, turned into galls of the fungus, *Ustilago maidis*, are starting to split and liberate black spores.



Photo 4. Outgrowths from the petiole caused by boil smut, *Ustilago maydis*.

Summary

- Worldwide distribution. On maize and sweet corn. A minor disease.
- Spores from soil infect seedlings, grow inside and distort the ears, turning seeds into galls with millions of black spores. Smaller galls on leaves.
- Spread long distances is by spores on wind and seed, but also on people, animals, fodder, and machinery.
- Cultural control: do not replant on land where disease has occurred (spores stay alive for many years in soil); do not injure plants during cultivation; remove plants with signs of disease before galls burst; do not over fertilise plants; resistant varieties.
- Chemical control: treat seed with carboxin or thiram.

Common Name

Boil smut, common smut of maize

Scientific Name

Ustilago zaeae; previously known as *Ustilago maydis*

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Photo 4 David Cohen Flickr. (<https://www.flickr.com/photos/dcohen/1913163221/in/faves-44747158@N03>).

Produced with support from the Australian Centre for International Agricultural Research under project PC2010/090: *Strengthening integrated crop management research in the Pacific Islands in support of sustainable intensification of high-value crop production*, implemented by the University of Queensland and the Secretariat of the Pacific Community.

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