Pacific Pests, Pathogens & Weeds - Mini Fact Sheet Edition

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Maize American corn rust (042)

Photo 1. Spots of American corn rust, *Puccinia polysora*, on lower leaves of maize.

Photo 2. Golden brown pustules of American corn rust, *Puccinia polysora*, on the underside of a maize leaf.

Photo 3. *Puccinia polysora* pustules (uredinia) on maize.

Photo 4. American corn rust, *Puccina polysora*, on the stem or stalk of maize.

Summary

- Worldwide distribution. On grasses and some relatives of maize (but not reported in the Pacific islands). It does not have another host for part of its life cycle as does *Puccinia sorghi.* It lack the stages of life cycle that *Puccinia sorghi* has on *Oxalis* (**see Fact Sheet no. 225**).
- Spots in large numbers on both sides of the leaves and stems, brown, round to oval up to 2 mm, bursting open, spreading spores in the wind that eventually landing on maize, geminating and infecting though natural openings.
- Warm humid weather favours disease. But usually infection comes late so impact is slight. However, in 2008 However, in 2008, a new strain was recorded in the US to which most hybrid maize varieties were susceptible. Fungicides were needed to provide control.
- Cultural control: plant far away from infested crops; plant in drier times of year; use varieties bred for resistance to rust diseases; destroy volunteers; collect and burn trash after harvest.
- Chemical control: usually not needed, but if required: copper or mancozeb.

Common Name

American corn rust, maize rust, southern rust

Scientific Name

Puccinia polysora. Another rust, *Puccinia sorghi* (common rust of maize) occurs worldwide (**see Fact Sheet no. 225**). Often the two rusts occur together, requiring microscopic examination to tell them apart.

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Information from CABI (2013) *Puccinia polysora* (American corn rust) Crop Protection Compendium (http://www.cabi.org.cpc/); and from Smith D (2016) Southern rust is a rare but serious threat to Wisconsin corn crops. UW-Extension. (http://wiscontext.org/southern-rust-rare-serious-threat-wisconsin-corn-crops). Photo 3 McKenzie E (2014) *Puccinia polysora.* PaDIL - (http://www.padil.gov.au).

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