

# Corn Smut

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### Pest Background

- Corn smut is caused by the fungal pathogen Ustilago maydis.
- Spores are spread through wind or water splashing to nearby plants.
- This pathogen infects the corn through the silks prior to pollination, or by wounds on the plant (Fig 3).

#### Identification

- Corn smut is easily identified by rapid swelling, known as galling, on ears, stalks, leaves, and tassels (Fig 1).
- Galls become papery and produce black teliospores (Fig 2).



Fig 1: Galls caused by Ustilago maydis on corn ears. Photo by M. Henrickson



Fig 2: Masses of teliospores resemble black soot. Photo by M. Henrickson



Fig 3: Corn smut growth at base of a previously damaged stalk. Photo by M. Henrickson

and Natural Resources — a land-grant institution. This institution is an equal opportunity provider.

# Management

- Resistant varieties are available, consult local seed representatives to discuss hybrid options.
- Early planting dates can minimize the window silks are susceptible to spores.
- Crop rotation can disfavor the pathogen by removing a susceptible host from the affected region.

#### References

Crop Protection Network . (2022, January 27).Common Smut of Corn.Retrieved from Crop Protection Network:

<a href="https://cropprotectionnetwork.org/encyclopedia/common-smut-of-corn">https://cropprotectionnetwork.org/encyclopedia/common-smut-of-corn</a>

Pataky, J. K., and K. M. Snetselaar. 2006. Common smut of corn. The Plant Health Instructor. DOI:10.1094/PHI-I-2006-0927-01