Control of Maize Smut by Seed Treatment

Recognize the problem
Maize smut is fungal disease and most severe when young, actively growing plant tissues are wounded. Losses from this disease vary greatly, however, annual losses rarely exceed 2% when resistant cultivars are grown.

Background
The fungus can survive for long periods of time in the soil or crop residues. Spores are carried by air currents or splashed by water to young, actively growing plant parts. Infection normally takes place through the silks or wounds created by hail, insect feeding or other mechanical injury to any part of the plant.

All aerial parts of the plant are susceptible, particularly young, actively growing or meristematic tissues. Galls may develop on leaves, stalks and tassels, but are probably most common and easily recognisable when they develop on the ear.

Management
Fungicides used as seed protectants are listed below. However, it is the responsibility of seed companies to treat seeds, and must not be carried out by a farmer. Pre-treated seeds can be purchased.

- Carboxin 15%+Thiram 13% 1.5 g per kg seed.
- Thiram is a broad-spectrum surface contact fungicide.
- Prothioconazole 2 g per kg seed.
- Carbendazim 2 g per kg seed.

Scientific name(s) > *Ustilago zeae* (*Ustilago maydis*)

The recommendations in this factsheet are relevant to: Afghanistan, All Countries

When using a pesticide, always wear protective clothing and follow the instructions on the product label, such as dosage, timing of application, and pre-harvest interval.

Maize smut fungus bulbs. Too late to apply control measures. (Photo by SDA-ARS)

Common smut of maize. (Photo by CABI)