

Maize smut (Common Smut)

Ustilago maydis, Ustilago zeae



Maize with smut (M Mulaa, CABI)



Smut galls on ears of maize (knowledge bank)

Prevention	Monitoring	Direct Control	Direct Control	Restrictions
<ul style="list-style-type: none"> ◆ Plough deep to bury surviving spores ◆ Practice crop rotation with non-cereal plants such as cassava and sweet potatoes ◆ Plant clean and disease-free maize seeds because the disease is also seed borne ◆ Plant resistant/ tolerant varieties e.g., WH699 ◆ Plant at the onset of the rains for good crop establishment ◆ Avoid feeding livestock with infected materials because the spores can be transmitted through manure ◆ Do not use higher rates of manure and nitrogen because disease incidence is higher in soils that contain a lot of nitrogen ◆ Avoid injuring roots, stems and leaves during ploughing because it creates entry point for disease ◆ Eliminate volunteer host plant, eg. sorghum and finger millet 	<ul style="list-style-type: none"> ◆ When plant reaches knee height check weekly for the presence of whitish grey tumor- like galls/ swelling on: <ul style="list-style-type: none"> ◆ tassels, ◆ husks, ◆ ears/kernels, ◆ stalks, ◆ leaves, ◆ prop roots ◆ Take action as soon as one infected plant is observed 	<ul style="list-style-type: none"> ◆ Cut out and destroy the gall before the smut ruptures ◆ Destroy infected plants by burning or burying away from the maize farm 	<ul style="list-style-type: none"> ◆ Chemical control is not very effective ◆ Seed dressing is the most effective management option with the following: <ul style="list-style-type: none"> ◆ Carboxin 15%+Thiram 13% (e.g Vitaflo 280) 1.5g per kg seed ◆ FRAC Code 7 ◆ Thiram is a broad spectrum surface contact fungicide 	<ul style="list-style-type: none"> ◆ Carboxin: WHO Class III (Slightly hazardous) ◆ Thiram: WHO Class II (Moderately hazardous) ◆ Do not graze or feed livestock on treated crops for 6 weeks ◆ When using a pesticide always wear protective clothing. Follow the instructions on the product label, such as dosage, timing of application, pre-harvest interval, max number of sprays, restricted re-entry interval. Do not empty into drains ◆ Always consult recent list of registered pesticides by (PCPB)

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