

Head Smut of Sorghum: What Is It, Symptoms, Management

Topic	Information
Head Smut of Sorghum	Head smut is a plant disease affecting corn and sorghum crops caused by <i>Sporisorium holci-sorghii</i> fungus.
	It's less widespread than kernel smuts but still a threat to agricultural productivity, especially in the Midwest.
	The fungus has distinct races on corn and sorghum, adapting to different host species.
	Intensive cultivation of susceptible hybrids contributes to severe outbreaks.
	Infected plants experience weakened root systems, leading to severe stalk and root rots.
Symptoms Of Head Smut Of Sorghum:	- Ear head replaced by a large whitish gall.
	- Dark filaments exposed as spores blow away.
	- Entire head replaced by large sori covered by whitish-grey membrane, bursting to reveal brown smut spores.
	- Individual sorghum grains replaced by smut sori with varying sizes and colors.
	- Size of sori ranges from smaller than glumes to over 1 cm.
	- Sori can be conical or oval, resembling sorghum seeds.
	- Typical dimensions: 0.4-1.3 cm long, 0.2-0.4 cm wide.
	- Smut sori can appear at top, bottom, or sides of the head.
	- Unusual symptoms include missing spikelets in smutted panicles.
Management Of Head Smut Of Sorghum:	Preventing Method:
	- Izumonas and Izumil: Bio fungicides and bactericides.
	- They enhance plant defense, promote growth, and protect against harmful microorganisms.
	Modes Of Use:
	- Seed Treatment: Soak seeds in solution before sowing.
	- Seedling Treatment: Dip roots in solution before transplanting.
	- Soil Application: Mix with farmyard manure or soil and apply before ploughing.
	- Foliar Application: Spray solution on plant foliage.
	Cultural Method:
	- Soak and dry seeds, rotate crops every four years, burn plants before teliospore release, plant in specific soil.
	- <i>S. sorghii</i> spores can survive in soil for extended periods.
	- Temperature affects <i>S. sorghii</i> germination.