

Smutgrass [*Sporobolus indicus* (L.) R.Br.]

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Fig. 1. Smutgrass in bloom on a roadside in Mississippi with other vegetation.

Fig. 2. Smutgrass plant with a tuft of basal foliage.

Fig. 3. Smutgrass inflorescence apex showing width and red grains (caryopses).

Introduction

Problems Caused

Smutgrass [*Sporobolus indicus* (L.) R.Br.] is a perennial, tufted grass typically problematic in areas where grasses are desired, such as pastures, turf, and roadsides (Figure 1) throughout the Mid-South. It can often be distinguished in late summer and fall but the presence of a black smut throughout the inflorescence, hence the name smutgrass. It is spread by small seed and plants can tolerate poor compacted soils.

Regulations

Smutgrass is not regulated as a noxious weed in the Mid-South.

Description

Vegetative Growth

Smutgrass is a tufted, perennial warm-season grass (Figure 2) reaching around 3 feet in height. Leaves are mostly basal, usually rolled, to around 1 foot long and 0.2 inches wide. Sheathes are hairless, while margins are hairy toward the apex. Ligules are obscure.

Flowering

The inflorescence is a spike-like appressed to ascending panicle, around 1 foot long, 0.6 inches across, and dark green in color (Figure 3). Flowering typically occurs from July to October. Spikelets are small, around 0.08 inches long with obtuse somewhat unequal glumes that are about half the length of the spikelet. Palea and lemma are pointed on the end and nerveless. The caryopsis (grain) is very small, reddish, flat, oblong, and around half the length of the spikelet (Figure 3).

Dispersal

Smutgrass seed are very small and can be dispersed by soil movement or hay for livestock, or attached to equipment, animals, etc. Storms events may disperse seed, either by water or wind.

Spread By

Spread by human and animal activity and possibly storm events.

Habitat

Smutgrass can be a problem in pastures, flatwoods, waste areas, prairies, fields, turf, and roadsides (Figure 1). It generally forms dense clumps in open sites of poor, compacted compact soils, but may occur elsewhere in open sites. Once established, smutgrass can be difficult to control.

Distribution

US

While it is believed smutgrass is native to Asia, there have been questions recently about its origin. Once restricted to the southeastern United States, it now occurs from New York to Florida and Texas, as well as on the West Coast.

Mid-South

Smutgrass occurs in all Mid-South states and under the right conditions it can be quite common on roadsides and pastures. It is spread by seed, which are very small.

Control Methods

Biological

No widespread biological controls are currently used on smutgrass in the United States.

Chemical

Chemical control tactics include Roundup (glyphosate) as a spot treatment and Velpar (hexazinone) as a spot treatment or as a broadcast treatment (Table 1).

Herbicide	Method	Rate	Method	Rate
Roundup	Spot treatment	2%		
Velpar	Broadcast	3.5 pt/A	Spot treatment	2%

Mechanical

Small patches may be mechanically removed by hand, although this method is labor intensive. In fields used for grazing, thorough tillage that destroys established clumps followed by seeding ryegrass for winter forage has been reported by cattle producers as an effective management tactic. However, this practice must be repeated yearly to prevent reestablishment.

Table 1. Control tactics for Smutgrass [*Sporobolus indicus* (L.) R.Br.].

Physical

Currently, no physical control treatments are in widespread use.

References

Ferrell, J.A., M. B. Adjei, J. J. Mullahey, and P. Mislevy. 2007. Smutgrass Control in Perennial Grass Pastures. Online at: <http://edis.ifas.ufl.edu/AA261>. University of Florida, Gainesville, FL.
USDA, NRCS. 2007. The PLANTS Database (<http://plants.usda.gov>, 6 August 2007). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

More Information

The Genus *Sporobolus* belongs to the Grass (Poaceae or Gramineae) Family. Worldwide there are roughly 160 species of *Sporobolus* with an estimated 34 species in the United States. Several species of *Sporobolus* are native to the Mid-South, but smutgrass is not. Native *Sporobolus* species are variable in habit including annuals and tufted to rhizomatous perennials. However, they do not tend to be as leafy and robust as smutgrass and some species occur primarily on calcareous soils or sand. There are two botanical varieties of smutgrass in the southeastern United States. *Sporobolus indicus* var *indicus* [Syn.: *S. poiretii* (Roem. & Schult.) Hitchc.] occurs in the Mid-South and *S. indicus* var. *pyramidalis* (P. Beauv.) Veldkamp (Syn.: *S. jacquemontii* Kunth), or West Indian dropseed, is apparently restricted to central and southern Florida. Both species are native to Asia.

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