



Shattercane Fact Sheet

Common Name: Shattercane, black amber cane, wildcane

Scientific Name: *Sorghum bicolor*

Legal Status: Prohibited-Eradicate

Shattercane was added to the Maryland Noxious Weed Regulations in 1987. The Noxious Weed Law prohibits the import and transport of this noxious weed throughout the state and requires that infested lands be managed for the eradication of the species.

What is Shattercane?

Shattercane is an aggressive summer annual grass that is very competitive with field crops. It is closely related to cultivated sorghum and Johnsongrass.

Shattercane varieties originated in northern sub-Saharan Africa and occurs throughout the United States. It can also emerge multiple times in a growing season and has **evolved through multiple hybridizations** around the world. In Maryland, it can be found along field margins and in cultivated and abandoned fields. It tolerates a range of soil conditions, as well as both heat and drought. Shattercane begins to emerge in late spring and will continue to emerge throughout the summer. Flowers develop 55 to 70 days after seed germination. **Seeds are viable 10 days after flowering**, mature in about 30 days after pollination and can remain viable in the soil seedbank for up to 13 years.

Shattercane, while **primarily self-pollinated**, can also **cross-pollinate** with cultivated sorghums and Johnsongrass via insect and wind-dispersed pollen. The pollen can travel for a mile or more. Cross-pollination can make it difficult to produce genetically pure sorghum seed. **Even 'clean' sorghum seed is a potential source of shattercane introduction.** According to Cornell University studies, certified sorghum seed with a 99.95% genetic purity can introduce as many as 20 shattercane plants/acre if sown at a typical 40,000 seeds/acre. Seeds are dispersed by wind and water as well as animals that consume them such as birds, white tailed deer, and livestock.

Appearance

Shattercane **seedlings and young plants are similar in appearance to corn and sorghum** (fig. a). Mature plants form dense clumps with erect, unbranched, hairless stems that can reach up to 4-9 feet tall, typically taller than grain sorghum (fig b). **Stalks are robust with solid internodes** and can be 1 inch in diameter at maturity. Their bright green leaves are flat, hairless to sparsely hairy and have a **prominent pale green to white midvein** (fig e), reaching



Photo sources: MDA, Mizzou Weed ID Guide, MDA, MDA

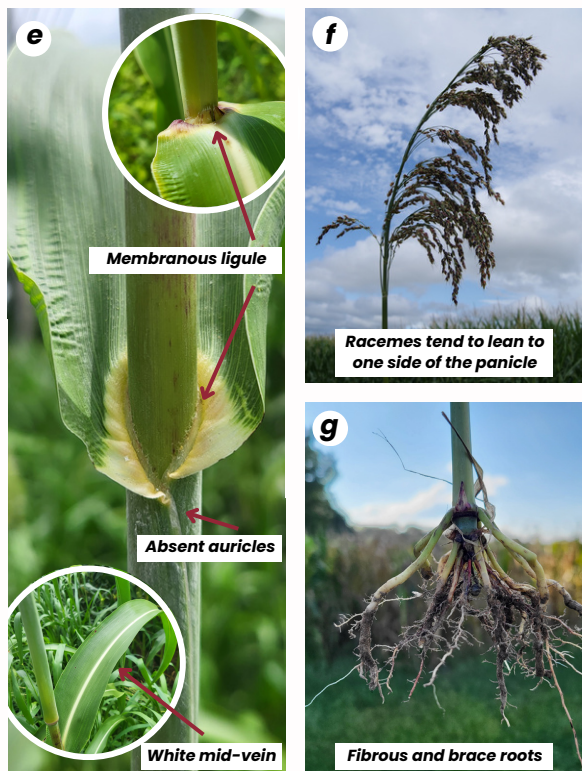
lengths of 1 to 2 feet long and widths of 1 to 4 inches. Bases of leaf blades are usually hairy. The leaves have a distinctive **membranous ligule with a fringe of hairs** (fig e). **Auricles** (small ear-like projections from the base of a leaf) **are absent** (fig e). Leaf sheaths are often covered with a waxy, whitish film or bloom. The inflorescence (seedhead) is a **compact or open panicle with several drooping racemes** (branches). The racemes tend to lean to one side of the panicle (fig f). They are initially pale green or violet-green (fig c), but mature to dark reddish or purplish-brown. The **dark red to black seeds are flattened, oval and shiny** and typically covered with deep purple to black chaff (fig d). **Seeds easily drop (shatter)** at maturity due to a special layer of cells at the base of the spikelet, allowing them to easily dislodge. The panicles, which can number from one to six per plant, produce between **500 and 1500 seeds each**. Shattercane has a **fibrous root system that often forms brace roots**, which are adventitious roots that grow from the lower part of the stem and help support the plant (fig g). It lacks rhizomes (underground stems) unlike Johnsongrass, a perennial grass that produces and spreads through rhizomes.

Prevention

- **Start with a weed-free seedbed** through the use of burndown herbicides or tillage.
- **Avoid planting grain sorghum** in fields infested with shattercane.
- **Clean equipment thoroughly** at the start and/or end of the season and between fields, using a leaf blower or compressed air. Drive equipment around, rather than through, isolated patches of weeds.
- **Harvest infested fields last.**
- **Inspect your land frequently** during the growing season to ensure timely control. Early detection is key to prevent invasion. Control shattercane along fencerows, field edges and non-crop areas to reduce sources of weed seed.

Shattercane is often introduced into fields when planting grain sorghum which can contain a small percent of off-type shattercane seed. Sorghum fields should be monitored. Any off-type plants must be rogued out before setting seed to prevent its spread.

Key ID Characteristics



Management

Managing shattercane requires a **multi-year integrated control strategy**. A common approach involves a combination of **prevention, early intervention, and the use of effective herbicides**, particularly postemergence applications. For crop fields, early control is recommended, specifically within 3–4 weeks after planting, to prevent crop yield loss, especially if infestations are moderate to high.

- **Cultural. Planting a cover crop** such as winter grain or early planted spring grain may help to outcompete emerging seedlings. **Crop rotation** can disrupt shattercane's life cycle. **Narrow spacing** can allow for faster canopy development.
- **Mechanical. Mowing** is most effective after the inflorescence has emerged, but before the flowers have opened. **Cultivating** 2 or 3 times during the first 6 weeks after planting will keep weeds in check between rows until the canopy is established. **Hand-pull, cut, or use a hoe.** For small or scattered infestations, plants can often be hand-pulled/cut. Remove the entire plant, including the roots, to prevent regrowth. **Seedhead clipping** is a good option for small or scattered infestations. Clip the seedheads before they mature and shatter. Remove mature seedheads from the field.
- **Chemical. Apply a preemergence herbicide prior to planting.** Selecting a postemergence herbicide depends on the crop and timing of chemical application. The most common and effective herbicides have glyphosate as the active ingredient. Soybeans are an ideal crop to control shattercane due to the availability of several grass-selective herbicides and herbicide-tolerant soybean varieties. Herbicide treatments may take several years to ensure control.

Read the product label and follow instructions.

Resources

MDA has entered into an agreement with many counties in the State to provide technical assistance to landowners.

Many of the programs provide herbicide application to landowners on a fee-for-service basis.

To learn whether your county has a Weed Control Program, visit <https://mda.maryland.gov/plants-pests> or call (410) 841-5920.

For specific herbicide recommendations as well as organic options, contact University of Maryland Extension Weed Management Specialist, Kurt Vollmer: kvollmer@umd.edu or Ben Beale: bbeale@umd.edu

Stages of seed maturity



Photo source: MDA

Scan for more ID photos:



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