



sideoats grama

Bouteloua curtipendula (Michx.) Torr.

Alternate Common Names

sideoats, side oats grama, side-oats grama

Scientific Synonym

Atheropogon curtipendula

Functional Group

warm season grasses

Family

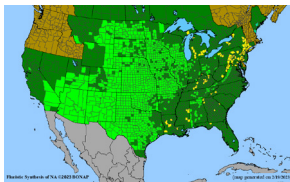
grass family (Poaceae)

Description

- » **Life cycle/growth form:** Perennial, warm-season bunchgrass, spreading slowly by short rhizomes to form loose colonies.
- » **Height:** 1-3 ft
- » **Leaves and stem:** Leaves mostly basal with leaf blades 6-8 in long and tapered to a sharp point; stiff hairs with glandular bases evenly spaced along the leaf margins, sticking out at a right-angle from the main axis of the blade; lower leaves curl and turn a light, tawny color when dry; ligule a very short fringe of hair; nodes hairless and green to purple; flowering stem is smooth and erect.
- » **Fruit/seed head:** Seed head 4-12 in long consisting of many short oat-like spikes (0.5-1.25 in long), each with 3-7 spikelets all turned to one side of the main stem, giving rise to the common name "sideoats;" entire spike falls when mature, leaving a naked stalk with visible nodes.
- » **Pollination:** wind



Habitat and Range



Dry to mesic, fine textured, calcium-rich soil; full sun; prairies, bluffs, along railroads, woodland openings. Well-drained soils are preferred for seed production.

Conservation Status

Global- G5, secure; District of Columbia- SH, possibly extirpated; Connecticut, Louisiana, Florida, and Michigan- S1, critically imperiled; Georgia, Maryland, Nevada, New York, and Pennsylvania- S2, imperiled; Indiana and West Virginia- S3, vulnerable (NatureServe)

General Comments

Sideoats grama is an important component of tall and mixed-grass prairies, occurring on well-drained, dry, rocky, alkaline soils. This species establishes readily from direct seeding, particularly if seeded into crop ground where good weed control has been achieved (following a glyphosate-resistant crop, for example). The foliage provides forage for mammalian herbivores as well as specialist and generalist insects, and grassland birds feed on the seeds.

Establishment for Seed Production (Appendix A)

Direct seeding:

» **Row spacing:** 36 in 24 in 12 in solid stand
 » **PLS lbs/acre:** 3 4 8 9

» **Seeding depth:** 1/4-1/2 in

» **Seeding method:** native seed drill

» **Seeding time:** Late spring when soil temperature reaches 55° F.

» **Weed control:** Prepare clean, firm, weed free seedbed prior to seeding.

Greenhouse:

» **Seed pre-treatment:** No stratification necessary. Germination of grass seed usually improves with proper storage (cool, dry conditions) throughout the first year after harvest.

» **Sowing:** Sow seed in greenhouse two months before last frost free date at 1/4 in depth.

» **Transplanting:** Transplant into prepared beds at 12 in spacing after all danger of frost.

Stand Management

- » **Weeds:** Mow stands high (6-12 in) in first growing season to prevent weed canopy from shading seedlings. Do not use atrazine the year of establishment. On established stands, Plateau (imazapic); Outlook (dimethenamid-P), and 2,4-D have been used. Hand roguing removes weeds that could contaminate seed, cultivation or mowing can be used between rows, and burning in late spring helps control cool season weeds and may prevent buildup of disease inoculum.
- » **Pests:** Gall midge larvae have been observed within spikelets.
- » **Diseases:** Stem and leaf rust and other fungi are known to occur.

Seed Production (Appendix B)

- » **First harvest:** Flowering and seed set end of second growing season from greenhouse grown transplants.
- » **Yield:** 20-255 bulk pounds/acre (per acre yields extrapolated based on production from 3 plots)
- » **Stand life:** Peak harvests third year and after. Annual late spring fire when shoots are 1 in tall helps control weeds and increase flowering and seed production. (Note: This recommendation is strictly for production fields, not remnant prairies.) Stand should persist 10 years or more if properly matched to soils and well managed.
- » **Flowering date:** mid-June - early July in northern Iowa
- » **Seed maturity/Harvest date:** September in northern Iowa
- » **Seed retention:** Holds seed fairly well, shattering occurs in October. Monitor fields fairly often as they mature and consider harvest when about 10% of stems have lost some

