



little bluestem

Schizachyrium scoparium, (Michx.) Nash

Alternate Common Name(s)

prairie beardgrass, broom beardgrass

Scientific Synonym(s)

Andropogon scoparius, Michx.

Functional Group

warm season grass

Family

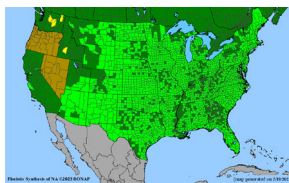
grass family (Poaceae)

Description

- » **Life cycle/growth form:** Perennial, short rhizomes, fibrous roots, grows in dense clumps.
- » **Height:** 1-3 ft
- » **Leaves and stem:** Leaf blades narrow, up to 8 in long, flat or folded lengthwise, green to blue-green in color, usually hairless; sheaths strongly flattened and often hairless; ligule is a fringed (ciliate) membrane; nodes are hairless and purple; flowering stem is hairless and erect with many short branches, bluish to reddish-purple in color.
- » **Fruit/seed head:** Single spikes, about 1 in long, arise from upper leaf axils, spikelets spread out as they mature, appearing as white, feathery appendages that arch; entire spikelets fall off at maturity and are weakly dispersed by the wind up to several feet from the parent plant.



Habitat and Range



Dry to dry-mesic soil; full sun; prairies, glades, dunes, roadsides, along railroads, woodland openings, scrubby barrens, abandoned fields; Wetland Indicator Status is Facultative Upland (FACU) for the Midwest;

well-drained, moderately moist soils are preferred for seed production.

Conservation Status

Global- G5, secure (NatureServe)

General Comments

Little bluestem is a dominant component on dry or well-drained soils within the tallgrass prairie region. Careful site selection, seedbed preparation, and weed control are critical to successful establishment from seed. No-till drilling with a native seed drill into cropland following a glyphosate-resistant crop, soybeans for example, is an excellent method. It takes two to three years for a stand to develop and reach peak yields.

Establishment for Seed Production (Appendix A)

Direct seeding:

- » **Row spacing:** 36 in 24 in 12 in solid stand
- » **PLS lbs/acre:** 2.4 3.2 6.4 8.0
- » **Seeding depth:** 1/4 in
- » **Seeding method:** native seed drill
- » **Seeding time:** late spring to early summer.
- » **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 after all danger of frost.

Stand Management

- » **Weeds:** Mow stands high (6–12 in) in the first growing season to prevent weed canopy from shading seedlings. Imazepic can be used to control grass and broadleaf weeds in established stands. Pre-emergent grass and broadleaf herbicides can be used for weed control. Always check chemical labels.
- » **Pests:** None noted.
- » **Diseases:** No significant issues noted in TPC production plots, however, a leaf spot fungus is known to infect little bluestem and related grass species.

Seed Production (Appendix B)

- » **First harvest:** Flowering and seed set end of second growing season from direct seeding, three years for stand to fill out.
- » **Yield:** 30-100 bulk pounds/acre
- » **Stand life:** Peak harvests third year and after. If seed yields decline, stands can be chiseled to reinvigorate. We do not apply fertilizer to TPC plots, but this may improve seed yield. Annual late spring fire helps control weeds and increase flowering and seed production. (Note: These recommendations are strictly for production fields, NOT REMNANT PRAIRIES). Productive stand life 10-20 years or more.
- » **Flowering date:** Late July to late August.
- » **Seed maturity/Harvest date:** Late September to October.
- » **Seed retention:** Shattering is moderate, beginning in late September. Much of the variation in seed yield at TPC appears to be due to harvest timing, particularly waiting too long.
- » **Harvest date range at TPC (2003-2022):** Sept 5 - Oct 29

