



## showy goldenrod

*Solidago speciosa*, Nutt.

### Alternate Common Name

goldenrod

### Scientific Synonym

*Aster speciosus* (Nutt.) Kuntze

### Functional Group

forbs (wildflowers)

### Family

Aster Family, Daisy Family (Asteraceae)

### Description

- » **Life cycle/growth form:** Perennial from a fibrous root system; clumps of stems expand slowly from rhizomes.
- » **Height:** 1-5 ft
- » **Leaves and stem:** Leaves alternate; basal leaves up to 12 in long and 3 in wide, leaf size decreasing up the stem; leaves lance-shaped to oval with smooth margins, mostly hairless; stem green to reddish purple, unbranched.
- » **Flower:** Inflorescence of numerous small, bright yellow composite heads is more upright than those of most other goldenrods, shaped like an elongated, inverted cone at the end of the stem; individual heads (1/4 in wide) are smaller than those of stiff goldenrod (*Oligoneuron rigidum*) but larger than those of more common “weedy” goldenrods (e.g., *Solidago canadensis*).
- » **Fruit/seed head:** Heads become fluffy as the pappus on the ripening achenes expands.
- » **Pollination:** Insects, especially bees, wasps, and beetles, but also butterflies, moths, and flies.



### Habitat and Range



Dry to mesic soil; partial to full sun; sand prairies, along railroads, thickets, woodland edges, rocky upland forest openings, savannas, abandoned fields. Make sure that production plots are sited in well-drained mesic to dry-mesic soils

as these plants perform poorly if soils remain saturated for an extended period.

### Conservation Status

Global- G5, secure; Vermont- SH, possibly extirpated; Maine- S1, critically imperiled; Maryland, Ohio, and Wyoming- S2, imperiled; in all other states within its natural range, status is S4 (apparently secure) to S5 (secure) or unranked (NatureServe).

### General Comments

The name “showy goldenrod” suits this species well. Its upright wands of bright yellow heads shine like torches in the prairie for a month in late summer and fall. While rhizomatous, this species spreads less aggressively than the more common, clonal goldenrod species like Canada goldenrod, and it tends to be found in drier habitats. Pollinators of many kinds, including migrating monarch butterflies and the endangered rusty patched bumble bee, are drawn to the pollen and nectar it provides late into the fall. There are subspecies of *S. speciosa* that have been elevated to species level fairly recently, and we are not yet certain how this may affect how showy goldenrod is grown and marketed for the native seed supply.

### Establishment for Seed Production (Appendix A)

#### Direct seeding:

We do not have experience with direct seeding this species for seed production.

#### Greenhouse:

- » **Seed pre-treatment:** Cold/moist stratification for 60 days works well.
- » **Sowing:** Surface sow (or cover very lightly) in germination flats or plugs (2-3 seeds per cell) in the greenhouse about 2-3 months before the last frost. We find that 73-cell plug flats with deep cells, grooved sides, and wide bottom openings encourage the formation of well-rooted plugs.
- » **Transplanting:** When plugs are well-rooted, move the flats outside to harden off, then transplant at 8-12 in intervals in prepared plasticulture rows in well-drained soil after danger of frost.

### Stand Management

- » **Weeds:** Prepare a clean, weed-free bed and use plastic mulch to reduce weed pressure in the first year. Remove plastic at the end of the first growing season to prevent moisture issues. Mow or cultivate between rows. Hand weed or rogue to remove competitive weeds or those that would contaminate the seed crop (e.g., small seeded asters or other goldenrods).
- » **Pests:** None noted.
- » **Diseases:** If soil moisture is excessive, plants succumb to root diseases. We have not identified the particular pathogens involved but have lost large numbers of plants in a plot due to saturated soil conditions during a protracted wet spring. Site production plots for this species in very well-drained locations.

### Seed Production (Appendix B)

- » **First harvest:** A small harvest can be expected in the first year from transplants. Peak harvest is in the second year.
- » **Yield:** 20-75 pounds per acre (extrapolated from harvests of six plots grown at TPC)

