



## white meadowsweet

### *Spiraea alba* Du Roi

#### Alternate Common Names

meadow sweet, meadowsweet, narrow-leaved meadowsweet, American meadowsweet, pale bridewort, pipstem, queen of the meadows

#### Functional Group

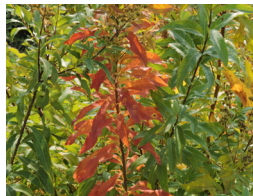
woody species, shrubs

#### Family

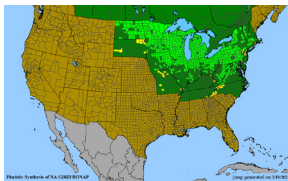
rose family (Rosaceae)

#### Description

- » **Life cycle/growth form:** Perennial shrub with woody root system, growing in colonies of slender stems.
- » **Height:** 2-4 ft
- » **Leaves and stem:** Leaves are alternate, mostly hairless, narrowly elliptic, 2-3 in long and 3/4 in wide, with finely serrate margins and short petioles; stems are smooth, slender, and woody, with few branches, becoming brown with age, multiple stems produced from the same rootstock.
- » **Flower:** Radially symmetrical, 1/4 in wide flowers are five-parted with white petals, a pink, yellow, or orange center ring, and long stamens that stick out from the flowers; inflorescence is a branched cluster of spikes 2 - 6 in long, each with numerous flowers, blooming from the top down.
- » **Fruit/seed head:** Each flower forms four to six (usually five) dry, reddish-brown fruits (follicles), arrayed in a star-like cluster; each follicle is tough, short-beaked, hairless, and contains 2-5 seeds; ripe follicles split open along one side to release the seeds.
- » **Pollination:** insects, particularly bees



#### Habitat and Range



Grows in moist to wet soil in full sun; found in wet prairies, along streams, bogs, marsh edges, ditches; Facultative Wetland status in Midwest (USDA Plants Database); benefits from irrigation in seed production systems.

#### Conservation Status

Global- G5, secure; Delaware and Tennessee- S1, critically imperiled; North Carolina- S2, imperiled; South Dakota- S3, vulnerable (NatureServe)

#### General Comments

The long flowering time and abundance of nectar and pollen make this an important food plant for many kinds of bees as well as small butterflies, wasps, beetles, and flies. We have observed the endangered Rusty Patched Bumble Bee visiting the flowers in white meadowsweet seed production plots. The dense colonies of stems provide shelter and nesting habitat for some bird species. The leaves, stems, and/or roots have uses in the traditional medicine and foodways of several Indigenous groups within the plant's native range. Recommended for use as a low hedge, in perennial borders, wet prairie restorations, and roadside plantings.

#### 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:** 45 days cold-moist stratification.
- » **Sowing:** Seeds are small and must be surface-sown; stratified seed germinates quickly (starting 5 days from sowing).
- » **Transplanting:** Seedling plugs (2.5 in deep, 73-cell trays) are ready to transplant about 12 weeks from germination. After several weeks in plugs, seedlings benefit from fertilizer application such as a sprinkling of coated fertilizer pellets. Harden off outside, then dibble into a weed barrier in irrigated production rows.

#### Stand Management

- » **Weeds:** Few issues if weed barrier used in planting year; dense foliage shades out most weeds in subsequent years; mow and trim between rows.
- » **Pests:** A few stems are affected by dark colored aphids that cause distortion of leaves and growing shoot tips.
- » **Diseases:** None noted.
- » **Note:** Mow plots down to 4 in during the dormant season every other year to stimulate production of robust new stems.

#### Seed Production (Appendix B)

- » **First harvest:** second year
- » **Yield:** 25-90 pounds/acre (based on 2 plots)
- » **Stand life:** at least 8 years
- » **Flowering date:** June - August
- » **Seed maturity/Harvest date:** late October - early November
- » **Seed retention:** Shattering of seed from open capsules begins in late October to early November.
- » **Harvest date range at TPC (2017-2023):** Oct 17 - Nov 1
- » **Recommended harvest method:** Check plots frequently from mid-October through early November; hand clip or combine when follicles (dry fruits) have split open on most stalks.

