

## SPOTTED JOE PYE WEED

*Eupatoriadelphus maculatus* (L.)  
King and H. E. Robins var.  
*maculatus*

Plant Symbol = EUMAM3

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Center, Beltsville, MD



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### Alternate Names

Spotted trumpetweed, *Eupatorium maculatum* L.

### Uses

**Ethnobotanical:** Native Americans used a tea of the whole herb as a diuretic. A tea of the roots has been used to treat fevers, colds, chills, sore womb after childbirth, diarrhea, and liver and kidney ailments. A wash of the root tea was used for rheumatism and as a diaphoretic.

**Landscaping and wildlife:** The nectar from the flowers is very attractive to butterflies, skippers, and long-tongued bees. The Swamp Sparrow supplements its diet with the seeds of *E. maculatus*. Various caterpillars, such as *Schinia trifascia* (Three-lined Flower Moth), *Papaipema eupatorii* and *Haploa clymene* (Clymene Moth) eat various portions of *Eupatoriadelphus* spp.

### Status

Spotted Joe-Pye Weed is listed as a historical plant in Kentucky and as endangered/extirpated in Maryland. Please consult the PLANTS Web site and your State Department of Natural Resources for this plant's current status (e.g. threatened or endangered species, state noxious status, and wetland indicator values).

### Description and Adaptation

Spotted Joe-Pye Weed is a native perennial wildflower that grows from 2 - 6 feet tall. The central stem is hairy and purple or purple-spotted, as are the flowering stalks. Fragrant purple flowers, in flat-topped clusters of 9 or more florets per head, appear in mid- to late summer (July-September). The florets produce wind-dispersed small dry seed with hair-like bristles. Plants are mostly unbranched, except for flower-bearing stalks near the apex of the plant. The ovate (egg-shaped) leaves have conspicuous veins, grow up to 8 inches long and 2.5 inches across, and usually appear in whorls of 4 or 5. The fibrous root system sometimes produces rhizomes (horizontal stem with shoots above and roots below), which create colonies.

**Distribution:** Spotted Joe-Pye Weed prefers moist conditions and populates a variety of wetland habitats from Nova Scotia south to the mountains of North Carolina and from Nebraska to British Columbia (USDA cold hardiness zones 2-9). It is rarely found on disturbed sites.

### Establishment

#### Seed propagation

Seeds ripen about a month after flowering and should be collected when the heads dry, split and the fluffy seed begins to float away. If collected earlier, dry the seed heads for 1 - 2 weeks in open paper bags. If seeds are sown directly, sow in the fall and sow thickly as germination rates are typically low. For container production, a cold-moist pretreatment at 40 degrees Fahrenheit for 3 weeks to 3 months will increase germination percentages. After pretreatment, sow seeds in a fine germination mix containing milled sphagnum moss. Transplant to potting mix after seeds have germinated. Seeds germinate at 70 - 85 degrees Fahrenheit and in the presence of light. Use a greenhouse with alternating temperatures (day temperatures 70 - 85 degrees Fahrenheit, night temperatures 65 - 68 degrees Fahrenheit). Seeds will last up to 3 years if stored in a cold (40 degrees Fahrenheit) and dry (30% relative humidity) environment.

### *Vegetative propagation*

Spotted Joe-Pye Weed can be propagated by division or two-node softwood tip cuttings taken in late spring. Divide the plants in the fall as they go dormant or in the spring just as shoots first appear.

### **Management**

Spotted Joe-Pye Weed typically only reaches full height in moist, rich soils, but it will also grow in gravelly or sandy soils if there is sufficient moisture. This plant prefers partial shade and neutral to slightly acidic soils, although it flowers best and seeds ripen best in full sun. Livestock will eat the leaves of Spotted Joe-Pye Weed, but it is not a preferred grazing plant.

### **Pests and Potential Problems**

It is not drought-tolerant. The leaves are favored by grasshoppers, flea beetles and saw flies, which can leave them looking bedraggled by midsummer.

### **Environmental Concerns**

No concerns at this time.

### **Cultivars, Improved, and Selected Materials (and area of origin)**

There are no recommended cultivars or selected materials at this time, although 'Gateway' is popular in some nurseries. Spotted Joe-Pye Weed seeds are available from commercial nurseries specializing in native and unusual plants.

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### **Citation**

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For more information about this and other plants, please contact your local NRCS field office or Conservation District <<http://www.nrcs.usda.gov/>>, and visit the PLANTS Web site <<http://plants.usda.gov>> or the Plant Materials Program Web site <<http://plant-materials.nrcs.usda.gov>>