

## SWEET FLAG

*Acorus calamus* L.

Plant Symbol = ACCA4

Contributed by: USDA NRCS Rose Lake Plant  
Materials Center



Tony Bush  
Rose Lake Plant Materials Center  
East Lansing, Michigan

### Alternate Names

Calamus

### Uses

**Cultural** Primarily, sweet flag is or was known by the American Indian tribes and early settlers for its medicinal value. Although the preparation of this species and the ailments it treats vary somewhat among the tribes, rhizomes are the most commonly used part.

**Wildlife** Sweet flag provides habitat for waterfowl. Muskrats eat the rhizomes and wood ducks consume the seed.

### Status

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

Sweet flag is a perennial, rhizomatous, iris-like herb. The erect, sharp-pointed, sword-shaped leaves fan-out from a pinkish base and grow to 5 feet in length. The midvein is usually off-center. Cut or bruised leaves produce a sweet, tangerine-like scent. The flower stem, or scape, arises from the base of the outer leaves. Although resembling a leaf, the scape is triangular in cross section. A long, erect bract, or spathe, extends beyond the scape. A single, cylindrical 2 to 4-inch spike, or spadex, angles upward at this union. The slightly curved spadix is crowded with small yellowish-green to brown flowers that appear from May to July. Sweet flag has thick, creeping rhizomes with brownish exteriors and white, fleshy interiors.

### Adaptation and Distribution

Sweet flag is irregularly circumboreal. In North America it is found from Nova Scotia and Quebec to Minnesota, Alberta and Eastern Washington, south to Florida, Texas and Colorado on wet soils and shallow water in ditches, marshes, river edges and ponds. It prefers full sun and a pH range from 5 to 7.

For a current distribution map, please consult the Plant Profile page for this species on the PLANTS Website.

### Establishment

Sweet flag can be propagated vegetatively by plant or rhizome division, and by seed. Vegetative propagation is best completed in the fall or spring using firm, healthy rhizomes cut into 2- to 4-inch sections. Plant sections in rich soil 4 - 6 inches deep and 1 foot apart. Separating individual sprigs from clumped plants is an alternative to using rhizomes. These should also be transplanted at 1-foot spacings.



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Seed should be planted during the fall or winter in a greenhouse. Fill a 2-inch deep tray with an organic soil mix, scatter seed sparsely on the surface and press firmly into the soil. Do not bury further than 1/8 inch deep. Keep soil moist to saturated. Seed does not require stratification and germinates in less than 2 weeks. When plants reach 3 to 4 inches transplant into individual 4-inch pots. Pots can be placed in shallow water or irrigated frequently to maintain very moist to saturated conditions. Transplant outdoors 1 foot apart in the spring. With adequate moisture seed can also be planted outdoors spring through early summer, or in a cold frame late summer through fall.

### **Management**

Keep soil very moist to saturated; sweet flag does not tolerate droughty conditions. It grows well under seasonal, shallow inundation, however, avoid flooding of newly established plants or seeded areas.

Starter fertilizers may be used indoors to improve early growth but are unnecessary once transplanted outdoors into a rich soil.

The spadix will turn brown as the seed ripens in late summer or early fall. Seed can be planted immediately or stored in low humidity refrigeration.

Rhizomes should be harvested for medicinal use in early spring before new growth, or late autumn. Collect when large and firm, generally after 2 – 3 years of growth, before becoming hollow.

### **Prepared By/Species Coordinator:**

*Tony Bush, Agronomist*  
Rose Lake Plant Materials Center  
East Lansing, Michigan

Edited: 05Feb2002 JLK; 30may06jsp

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

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