

## ACORUS

**Botanical Name:** *Acorus calamus*

**Family:** Acoraceae (Araceae)

**Common Names:** Sweet flag, Vacha, Acorus, sweet calomel

### Distribution

*Acorus calamus* plant is found near swamps and banks in Asia, Europe, and North America.

### Introduction

*Acorus calamus* is commonly known as sweet flag in India. The leaves of *Acorus calamus* have a lemony scent as well as the roots have a sweet fragrance. *Acorus calamus* has long been known for its medicinal value, and has been cultivated in Asia for this reason.



### Plant Description

*Acorus calamus* is a perennial, semi-aquatic and smelly plant, found in both temperate and subtemperate zones. It is up to 6 feet tall, aromatic, sword-shaped leaves and small, yellow/green flowers with branched rhizome.

### Parts Used

Rhizome or the Root

### Chemistry

*Acorus calamus* contains monoterpene hydrocarbons, sequestrine ketones, (trans- or Alpha) Asarone (2, 4, 5-trimethoxy-1-propenylbenzene) and Beta-asarone (cis- isomer).

### History

*Acorus calamus* plant has a long history of usage in both Native and non-Native folk medicine traditions. Aromatic roots used medicinally and ritually by Algonquins, Cree and other NE tribes. *Acorus calamus*, a sterile triploid, was introduced to India and North America by early European settlers, who grew it for medicinal uses. Rhizomes propagate easily, and the species has spread throughout India and northeast and central United States.

### Action & Uses of *Acorus calamus*

- *Acorus calamus* is slightly tonic but forms a useful adjunct to other tonics and stimulants.
- *Acorus calamus* is very popular for the remedies of cough and cold and also the other respiratory disorders like bronchitis. In raw form it is also used as cough lozenge.

- *Acorus calamus* provides aid to the digestive system and acts against flatulent colic, Dyspepsia, and vomiting.
- *Acorus calamus* depresses central nervous system, and a well known ingredient in formulation for psycho-somatic disorders like epilepsy.
- The vapours of *Acorus calamus* from the roots do repel some insects.

### **Cultivation details**

#### **Soil and Climate**

Prefers, growing in shallow water or in a very moist loamy soil. Requires a sunny position. Prefers a pH range of 5.5 to 7.5. Plants are hardy to about -25°C.

#### **Propagation**

This plant is propagated through roots/rhizomes and seeds. Roots of 5-6 cm, firm, and free from any damage or infection is used.

#### **How to Grow *Acorus calamus***

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 the soil from moist to saturate.

Seed does not require stratification and germinates in less than 2 weeks. When plants reach 3 to 4 inches, transplant them 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. Keep soil very moist to saturated, sweet flag does not tolerate droughty conditions. It should be planted where it will be in full sun to partial shade.

Calamus 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.

The flowering head, produced from the side of the stalk, consists of a fleshy spike sometimes three and half inches long and about 1/2 inch in thickness, closely covered with very small, greenish yellow flowers, which appear from May to July.

The rhizome should be gathered in early spring or



in October and November. Dirt and bitter rootlets should be removed and the rhizome should be dried quickly in a warmed room. The leaves also possess the aromatic properties of the rhizome, but to a lesser extent. Leaves are not employed as a medicine.

### **Harvest and yield**

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

The crop produces 1-1.5 tons of dry rhizome per acre.

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1. Botanical name of Acorus \_\_\_\_\_
2. Acorus is commonly called us \_\_\_\_\_
3. Economic part used in Acorus \_\_\_\_\_
4. Active principles present in Acorus \_\_\_\_\_
5. Propagation of Acorus is \_\_\_\_\_