

SOUTHERN CATTAIL

Typha domingensis Pers.

plant symbol = TYDO

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Alternate Names

Flags, rushes, bulrushes, cat o' nine tails, Cossack asparagus, reed mace, baco (cattail)

Uses

Ethnobotanic: All parts of the cattail are edible when gathered at the appropriate stage of growth. The young shoots are cut from the rhizomes (underground stems) in the spring when they are about 4 to 16 inches long. The base of the stem where it attaches to the rhizome can be boiled or roasted like potatoes. The young flower stalks can be taken out of their sheaths and can be boiled or steamed just like corn.

Cattail pollen is a fine substitute for flours; it is a bright yellow or green color, and turns pancakes, cookies or biscuits a pretty yellow color (which children love). The rhizomes (underground stems) and lower stems have a sweet flavor and can be eaten raw, baked, roasted, or broiled. Cattail rhizomes are fairly high in starch content; this is usually listed at about 30% to 46%. The core can be ground into flour. One acre of cattails would yield about 6,475 pounds of flour (Harrington 1972). This flour would probably contain about 80 % carbohydrates and around 6% to 8% protein. Since cattail occurs around the world, it is a potential source of food for the worlds' population.

The Cahuilla Indians used the stalks for matting, bedding material, and ceremonial bundles (Barrows 1967). Some tribes used the leaves and sheath bases as caulking materials. Apaches used the pollen in female puberty ceremonies. After dipping the spike in coal oil, the stalk makes a fine torch. The fluff can also be used as tinder, insulation, or for lining baby cradle boards. The down is used for baby beds (Murphy 1959).

Lengths of cattail were plied into rope or other size cordage, and cattail rope was used in some areas to bind bundles of tule into tule boats. Air pockets or aerenchyma in the stems provide the buoyancy that makes tule good boat-building material.

Other Uses: Wildlife, wetland restoration, wastewater tertiary treatment, edible (young shoots, base of stem, flower stalks, pollen, rhizomes), baskets, matting, bedding material, ceremonial bundles, caulking material, and cordage. The multitudes of tiny, wind-carried seeds are too small and too hairy to be attractive to birds (Hotchkiss and Dozier 1949). In a few exceptions, the seeds are eaten by several duck species. Cattail rootstocks are much more valuable as food for wildlife than are the seeds. Geese and muskrats prefer the stems and roots. Shelter and nesting cover are provided for long-billed marsh wrens, redwing blackbirds, and yellow-headed blackbirds.

Status

Please consult the PLANTS Web site and your State Department of Natural Resources for this plant's current status, such as, state noxious status and wetland indicator values.

Description

General: Cattail Family (Typhaceae). Cattails are herbaceous, rhizomatous perennial plants with long, slender green stalks topped with brown, fluffy, sausage-shaped flowering heads. Southern cattail plants are 15-40 dm tall. The spike-like, terminal, cylindric inflorescence has staminate flowers above and pistillate flowers below. The naked axis between the staminate and pistillate flowers is approximately 1-8 cm wide. The spike is bright yellow-to-orange-brown. The basal leaves are 6-18 mm wide when fresh, 5-15 mm wide when dry, and are gland-dotted on the inside of the leaf near the base. These plants are rhizomatous and colonial. This species is distributed across the southern half of the U.S.

Distribution

For current distribution, please consult the Plant Profile page for this species on the PLANTS Web site. Southern cattails are common in the warm temperate and tropical regions of the world (Hickman 1993). These cattails occur in coastal and valley marshes at elevations <1500 m.

Establishment

Adaptation: Cattails are always found in or near water, in marshes, ponds, lakes and depressions. They are obligate wetland indicator plant species. Cattails tolerate perennial flooding, reduced soil conditions and moderate salinity. With influxes of nutrient or freshwater, cattails are aggressive invaders in both brackish salt marshes and freshwater wetlands.

Typha species may be planted from bare rootstock or seedlings from container stalk or directly seeded into the soil. Bare rootstock or seedlings are preferred revegetation methods where there is moving water. *Typha* seeds germinate readily and are a cost-effective means to propagate cattail on moist soils.

Seed Collections: Select seed collection sites where continuous stands with few intermixed species can easily be found. At each collection location, please obtain permission for seed collection.

- Seed is harvested by either taking hand clippers or cutting the stem off below the seed heads or stripping the seed heads off the stalk.
- Collect and store seeds in brown paper bags or burlap bags. Seeds are then dried in these bags.
- Seeds can be harvested when they are slightly immature. It is important to harvest the staminate stalks before they dry and blow away.
- Seeds and seed heads need to be cleaned in a seed cleaner.

- Plant cleaned seed in fall.
- Plant in clean, weed - free, moist seed bed. Flooded or ponded soils will significantly increase seedling mortality.
- Broadcast seed and roll in or rake 1/4" to 1/2" from the soil surface.
- Some seed may be lost due to scour or flooding.
- Recommended seed density is unknown at this time.

Seed germination in greenhouse: Clean seed - blow out light seed.

- To grow seeds, plant in greenhouse in 1" x 1" x 2" pots, 1/4" under the soil surface. Keep soil surface moist. Greenhouse temperature should be 100 degrees F (plus or minus 5 degrees). Seeds begin to germinate after a couple weeks in warm temperatures.
- Plants are ready in 100 - 120 days to come out as plugs. By planting seeds in August, plugs are ready to plant in soil by November. These plants are very small; growing plants to a larger size will result in increased revegetation success.

Live Plant Collections: No more than ¼ of the plants in an area should be collected. If no more than 0.09 m² (1 ft²) are removed from a 0.4 m² (4 ft²) area, the plants will grow back in one good growing season. A depth of 15 cm (6 in) is sufficiently deep for digging plugs. This will leave enough plants and rhizomes to replenish the stock annually. Donor plants that are drought-stressed tend to have higher revegetation success.

Live transplants should be planted in moist (not flooded or anoxic) soils as soon as possible. Plants should be transported and stored in a cool location prior to planting. Plugs may be split into smaller units, generally no smaller than 6 x 6 cm (2.4 x 2.4 in), with healthy rhizomes and tops. The important factor in live plant collections is to be sure to include a growing bud in either plugs or rhizomes. Weeds in the plugs should be removed by hand. For ease in transport, soil may be washed gently from roots. The roots should always remain moist or in water until planted.

Clip leaves and stems from 15 to 25 cm (6 to 10 inches); this allows the plant to allocate more energy into root production. Plant approximately 1 meter apart. Plants should be planted closer together if the site has fine soils such as clay or silt, steep slopes, or prolonged inundation.

Ideally, plants should be planted in moist soils in late fall just after the first rains (usually late October to November). This enables plant root systems to become established before heavy flooding and winter dormancy occurs. Survival is highest when plants are dormant and soils are moist. Fertilization is very helpful for plant growth and reproduction. Many more seeds are produced with moderate fertilization.

Management

Heavy grazing will eliminate *Typha* species as well as other native species from riparian corridors. However, cattails are fairly resistant to moderate grazing, providing wet soils are not compacted.

Because cattails have relatively little value for ducks, they are often regarded as undesirable weeds in places intended primarily for ducks. It has been found that mowing cattails after the heads are well formed but not mature and then following up with another mowing about a month later, when new growth is two or three feet high, will kill at least 75% of the plants. This will enable other emergent vegetation with more palatable and nutritious seeds to become established.

Ecologically, cattails tend to invade native plant communities when hydrology, salinity, or fertility change. In this case they out compete native species, often becoming monotypic stands of dense cattails. Maintaining water flows into the wetland, reducing nutrient input and maintaining salinity in tidal marshes will help maintain desirable species composition. If cattails begin to invade, physical removal may be necessary.

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

Please check the Vendor Database, expected to be on-line through the PLANTS Web site in 2001 by clicking on Plant Materials. Material from local sources is recommended, though it is available from most nurseries specializing in aquatic plants.

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