

PURPLE NUTSEdge

Cyperus rotundus L.

Family: *Cyperaceae* (Sedge).

Other Scientific Names: None.

Other Common Names: Nutgrass.

Legal Status: Provincial Noxious.



Identification

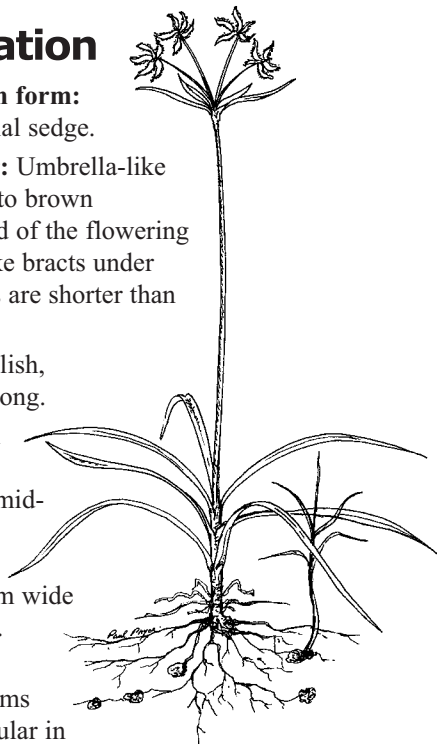
Growth form:
Perennial sedge.

Flower: Umbrella-like clusters of purple to brown spikelets at the end of the flowering stems. The leaf-like bracts under the flower clusters are shorter than the inflorescence.

Seeds/Fruit: Purplish, triangular, and oblong.

Leaves: The basal leaves are linear with a prominent mid-rib and abruptly tapered point. Leaves are 3–8 mm wide and 5–15 cm long.

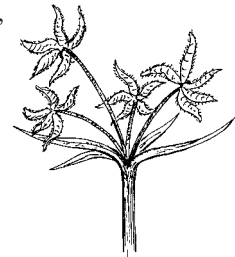
Stems: Plants are 30–60 cm tall. Stems are upright, triangular in



cross-section, and as long as or longer than basal leaves.

Roots: Much-branched rhizomes bear many tubers (nutlets). The bitter-tasting tubers are oblong, covered in reddish scales, and often connected in chains.

Seedling: Uncommon, since most plants develop from tubers. Leaves are smooth, ribbed, and 3-ranked, and stems are triangular in cross-section.



Similar Species

Exotics: Yellow nutsedge is very similar in appearance but has yellowish brown spikelets with long, leafy bracts, the leaves gradually tapering to a point, and the smooth, round tubers being borne on the end of the rhizomes.

Natives: None known.

Impacts

Agricultural: Nutsedges are among the most difficult weeds to control and can rapidly colonize turf, ornamental areas, pastures, and cultivated fields. It is a highly competitive plant because of its upright growth habit, rhizomatous root system, and rapid growth.

Ecological: This plant is well adapted to wet, sandy soils and poses a threat to riparian areas where disturbance has depleted the native plant community.

Human: Used as an ornamental for water gardens.

Habitat and Ecology

General requirements: Well adapted to moist conditions and sandy soil such as ditches (Whitson et al. 1996).

Distribution: Not yet present in BC but is widely distributed in Arizona and southern California. Nutlets of purple nutsedge have been discovered in ornamental

nursery stock (roses) imported from Arizona.

Historical: Introduced in North America from Eurasia.

Life cycle: Rhizomes sprout from underground tubers in spring that develop into a bulbil. The bulbil produces 2 types of shoots: an upright leafy shoot that produces food to support the plant, and an underground runner

that establishes another bulbil a short distance from the parent plant. This process is repeated throughout the growing season until August, when the plant has produced enough food to complete its life cycle the following year (Kopeck 1996).

Mode of reproduction: From tubers and occasionally from seed.

Seed production: No information available.

Seed bank: No information available on seeds. Tubers can remain dormant in the soil for extended periods.

Dispersal: Plants spread from rhizomes.

Hybridization: No information available.

Management

Biocontrol: None.

Mechanical: Cutting often stimulates the plant to produce tubers and nutlets from new rhizomes. Mechanical methods to defoliate the plant must be applied repeatedly to deplete food reserves in the nutlets and prevent storage of new food.

Fire: Likely to be ineffective because of the extensive root system.

Herbicides: The sulfonylurea group of herbicides have been effective in managing purple nutsedge.

Up to 3–5 applications/season over 3–4 years may be required to gain control. A single application may only stimulate new growth from the tubers (Kopeck 1996). Consult the most recent edition of BC Ministry of Agriculture, Food and Fisheries Crop Production Guides for specific recommendations. **Before applying**

herbicides, read the label for full use and

Integrated Management Summary

Prevention is essential to keeping purple nutsedge out of BC. Public awareness can help to identify new introductions. Use tillage, mulching, competitive cropping, herbicides, and crop rotation to prevent and manage new infestations (BC Ministry of Agriculture, Food and Fisheries. Undated).

precautionary instructions.

Cultural/Preventive: Learn to identify this weed. Control new infestations immediately.

References

BC Ministry of Agriculture, Food and Fisheries. Undated. Weed Alert—Yellow and Purple Nutsedge. Fact Sheet.

Kopeck, D. M. 1996. Purple nutsedge—the war of attrition. Plant Sciences Department, University of Arizona. <http://ag.arizona.edu/turf/glf0696.html>

Whitson, T. D. (ed.), L. C. Burrill, S. A. Dewey, D. W. Cudney, B. E. Nelson, R. D. Lee, R. Parker. 1996. Purple nutsedge. *Weeds of the West*. Western Society of Weed Science, in cooperation with the Western United States Land Grant Universities Cooperative Extension Services, Newark, CA.

