

Nutgrass (453)

Summary

- Widespread. Asia, Africa, North, South and Central America, Caribbean, Europe, Oceania. In most Pacific countries.
- Invasive, grows very rapidly in a wide variety of environments, irrespective of soil types. Problematic in field crops, orchards, vineyards, pastures, gardens, fallows, natural and waste areas, footpaths, roadsides, banks of waterways, produces underground tubers that regenerate plants, and is tolerant of many herbicides.
- Plants 20-60 cm tall. Leaves, narrow, up to 20 cm long, at base of plants. Stems, underground, producing small tubers in chains, white and fleshy at first, later brown and wiry. Buds on the tubers form new plants. Flower stems, smooth, glossy, triangular in cross-section, with 3-8 branches of different lengths and leaf-like structures beneath; each branch bears several reddish-brown 'spikelets' with flowers. The fruits are 3-angled, brown or black, with a single seed inside. Germination very low, but many seed produced.
- Spread: underground stems; by cultivation and machinery; seed (probability low); flood waters; as a specialist food.
- Biosecurity: high risk of introduction; one of the worst 10 weeds in Fiji, French Polynesia, Guam, New Caledonia, PNG, Solomon Islands, Tonga. On Global Invasive Species Database of alien invasive species (IUCN, 2020). Biocontrol: a moth, *Bactra* species, and a mycoherbicide, using *Dactylaria higginsii*.
- Cultural control: hand weed; shade; plough and disc; polyethylene mulch; vehicle hygiene to remove tubers and seed; ducks and/or chickens will eat the tubers.
- Chemical control: in Australia: glyphosate; 2,4-D; and the selective herbicide, halosulfuron-methyl. In Fiji, MCPA.

Common Name

Nutgrass; CABI prefers the name purple nutsedge.

Scientific Name

Cyperus rotundus. It is a member of the Cyperaceae.



Photo 1. Mature plant, nutgrass, *Cyperus rotundus*, with adjacent 'daughter' plants arising from underground tubers.



Photo 2. Single mature plant, nutgrass, *Cyperus rotundus*, to show underground stem or rhizome, with tubers.



Photo 3. Triangular flower stem, nutgrass, *Cyperus rotundus*.



Photo 4. Flowerhead, nutgrass, *Cyperus rotundus*, with branches, each with flattened reddish-brown spikelets, which contain the many flowers. Note, the leaf-like bracts.

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Adapted from Nutgrass (*Cyperus rotundus*) (2018) Weeds of SE Qld and Northern NSW. Lucidcentral. (<https://www.lucidcentral.org/editors-pick-animal-and-plant-identification-keys/key-to-weeds-of-se-qld-and-northern-nsw/>); and additional information from CABI (2019) *Cyperus rotundus* (purple nutsedge). Invasive Species Compendium. (<https://www.cabi.org/isc/datasheet/17506/>); and Waterhouse DF, Norris KR (1987) *Cyperus rotundus*. *Biological Control Pacific Prospects*. Inkata Press, Melbourne; and from Coleman M et al. (2018) Nutgrass (*Cyperus rotundus*): Weed management guide for Australian vegetable production. School of Environmental and Rural Science, University of New England, Armidale. (https://www.une.edu.au/_data/assets/pdf_file/0006/235995/une-weeds-nutgrass.pdf). Photos 1&3 Rickjelleg Nutgrass - *Cyperus rotundus*. Photo2 Joseph LaForest, University of Georgia, Bugwood.org; Photo 4 *Cyperus rotundus*, by Jeevan Jose, kadavoor, Kerala, India.

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