

## INVASIVE PLANT FACTSHEET

### Yellow nutsedge (*Cyperus esculentus* L.)

Problems: Forms dense stands of unwanted vegetation that outcompete native species for light, nutrients, and water. This increased vegetation can reduce decrease native plant diversity and aesthetic attractiveness of the landscape.

Regulations: No federal or MS regulations prohibiting movement of this plant.

Description: Yellow nutsedge is a perennial monocot that grows approximately 2.5 ft. in height. It has a triangular stem and yellow hued leaves that are long, tapered, have a prominent midrib, and display a waxy appearance. The inflorescence produced by this plant is a yellow seed head arranged in a spikelet configuration with several flattened flowers. Yellow nutsedge is an aggressive weed that thrives in moist soils but can also survive dry upland conditions.

Dispersal: Yellow nutsedge is non-native to North America and can survive into southern Canada. It is found in habitats ranging from the tundra to the tropics, but it is more likely to invade wet environments. This plant is also a principle weed in various crops across the globe. Tubers are spread by translocation of infested soil due to construction and planting. Yellow nutsedge reproduces primarily by tubers that form on rhizome terminals, but can also reproduce from rhizome runners and fragments; the seeds produced rarely germinate. Tubers can remain dormant in the soil for more than three years.

Control Strategies: Physical - the entire plant may be excavated if there are few present, but this is impractical for large infestations. Mechanical – mechanical control methods may control individual plants but are also likely to spread seeds and vegetative fragments. Biological - there are no known effective bio-control agents for yellow nutsedge. Chemical - the herbicides glyphosate, imazamox, and bispyribac-sodium have documented effectiveness against yellow nutsedge (Table 1).

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## References

Turnage, G. 2019. A Brief Introduction to Factors Affecting Water Quality, Aquatic Weed Control, Herbicide Labels, & Mixing Calculations. Mississippi State University, Geosystems Research Institute Report #5084. Pp. 22.

Ferrell JA, HJ Earl, and WK Vencill. 2004. Duration of yellow nutsedge (*Cyperus esculentus*) competitiveness after herbicide treatment. *Weed Science* 52:24-27.

Tehranchian P, JK Norsworthy, V Nandula, S McElroy, S Chen, and RC Scott. 2014. First report of resistance to acetolactate-synthase-inhibiting herbicides in yellow nutsedge (*Cyperus esculentus*): confirmation and characterization. *Pest Management and Science* 71:1274-1280.

## Tables and Figures

Table 1. Chemical control strategies for yellow nutsedge; the first row for each herbicide is the amount of formulated product needed for commercial applications (100-gal solution/acre), the second row is the amount of product needed for private landowners (25-gal of solution; typical ATV sprayer size); all rates are in imperial units.

HERBICIDE <sup>*,†</sup>	SPOT RATE	BROADCAST RATE	SURFACTANT	NOTES
Glyphosate	0.25%	1 qt./ac	1 gal/ac	Apply to foliage
		1 cup	1 qt.	
Imazamox	4%	5 oz./ac	1 gal/ac	Apply to foliage
		1.25 oz.	1 qt.	
Bispyribac-sodium	-	0.25 lb./ac	1 gal/ac	Herbicide rate based on weight
		1 oz.	1 qt.	

\*Glyphosate rates based on 5.4 lb. formulation; imazamox rates based on 1.0 lb. formulation; bispyribac-sodium is a granular product, rates based on 80% active ingredient by weight, sprayer with agitation may be needed to keep product suspended in solution; see Turnage (2019) regarding herbicide labels and formulation determination.

†This table is meant to be an aid in mixing herbicide solutions; it is not meant to be used as a replacement for herbicide label recommendations.



Figure 1. Image of yellow nutsedge inflorescence (left) and entire plants (right). Image credit: L – J Cardina (OH State Univ.; [www.bugwood.org](http://www.bugwood.org)); S Dewey (UT State Univ.; [www.bugwood.org](http://www.bugwood.org)).

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