

## Yellow nutsedge (*Cyperus esculentus*) management basics

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Thank you to those of you who have already completed the “UNL turf weed and disease research guidance” survey I created last week. While seemingly trivial, surveys such as this truly do help us guide our research and extension programs for the benefit of our stakeholders. If you haven’t completed the survey, you can still do so at the following link: <https://www.surveymonkey.com/r/unlturfweeds>.

We have had responses from across the turf industry, but the largest represented segments so far have been golf course superintendents (27%), homeowners (18%), and professional lawn care operators (16%). Weeds have overwhelmingly been identified as the most problematic pests you encounter across the industry, and yellow nutsedge currently tops the list. As some of you know, Luqi Li is a graduate student at the University of Nebraska currently studying yellow nutsedge biology and management. He hopes to determine if genetic differences in yellow nutsedge populations affect management strategies. We look forward to his results. In the meantime, I thought it would be beneficial to review the basics of yellow nutsedge management.

Yellow nutsedge is an apple-green, grass-like plant that grows rapidly in summer, and can be differentiated from grasses by its triangular base (Figure 1). If you pull a sedge plant from the ground and role it between your thumb and forefinger, you can actually feel the triangular shape of the stem. It is primarily propagated from below-ground tubers that are produced on rhizomes as plants mature in midsummer. Tubers can move with soil, and will allow yellow nutsedge to recover if not removed when attempting to physically pull plants from the ground. Yellow nutsedge has a perennial lifecycle, meaning it doesn’t have to establish from seed each year. Still, you may have noticed that yellow nutsedge exhibits a lifecycle seemingly similar to crabgrass or goosegrass, which are summer annuals. This is because yellow nutsedge



Figure 1. Yellow nutsedge in a drought-stressed lawn and its triangular-shaped stems (insert).

emerges from underground tubers in spring to early summer, and grows actively throughout summer before cold temperatures and frost defoliate plants in fall. Cold temperatures don’t kill underground tubers, however, and leaves will emerge from tubers the following spring. Yellow nutsedge is commonly found in moist soils, hence the name “watergrass” by which it is also commonly known, but yellow nutsedge also occurs in dry sites – especially when turf is thin from heat, drought, mismanagement, etc.

Cultural management is important for all weed control programs, but especially for perennial weeds. Ensure that a proper mowing height and frequency are in place to avoid thinning turf from scalping, or because there is insufficient leaf area to sustain turf plants, especially during stress. Fertilize appropriately to ensure turf health, but don’t overdo fertility, either, as this may encourage other weeds and diseases. Several herbicides are available for yellow nutsedge control, and seasonal timing is as important as herbicide selection. **Unfortunately, now is not the best time of year to control yellow**

**nutsedge.** Plants are mature, and have already begun producing tubers that will allow recovery following herbicide applications this year, and increase the amount of nutsedge that will emerge next year. If you haven't already treated, it may not be worth treating at this point. Herbicide applications may aesthetically reduce yellow nutsedge, but likely won't reduce tuber incidence in soil which is the true measure of control.

Next year, plan to treat problematic areas in spring to early summer, before plants mature and produce tubers. Sulfentrazone, imazosulfuron, and halosulfuron provide good postemergence control, and are safe on most cool- and warm-season turfgrasses. Mesotrione is another option for control in some cool-season turfs, and active ingredients such as flazasulfuron and metolachlor may be used in warm-season turf. Because of tuber persistence in soils, herbicide applications in successive years are often required for control. If you struggle with yellow nutsedge, begin supplementing your cultural management strategies with properly-timed applications of effective herbicide chemistries next year, and in the years following. As emergence becomes less in problematic areas in the coming years, you'll see the benefit of properly-timed applications.

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