

Ignore nutsedge at your own risk

This tenacious perennial weed spreads quickly through turfgrass if left untreated.

Nutsedge is an especially troublesome turfgrass weed because of its varied methods of underground propagation and competitive growth habit, according to Dr. Nelroy Jackson.

"Nutsedge produces many underground propagules—rhizomes, basal buds or corms and tubers. These ensure its survival from season to season," says Jackson.

Nutsedge does produce seeds to propagate, but germination rates are low. Tubers—also called "nuts" or "nutlets"—sprout from as deep as 15 inches within the soil, which makes turning the soil an ineffective preventive measure.

How tubers grow

Tubers begin forming four to six weeks after nutsedge emergence. They sprout in warm soil and adequate moisture. As the tubers grow, rhizomes reach vertically from the tuber buds, as roots spread horizontally. Rhizome tips are strong and sharp and can penetrate hard surfaces and mulches.

When the tip of the rhizome reaches sunlight under optimum day/night temperature fluctuations, a basal bud forms below the soil surface. This basal bud contains meristems for leaves, rhizomes, roots and the flower structure.

Several weeks after the primary shoot emerges, secondary rhizomes grow horizontally away from the basal bud. These rhizomes turn upward and create new plants, or secondary basal buds.

Under good growing conditions this process can continue indefinitely and cause massive nutsedge infestations, says Jackson, technical manager for Monsanto.

"A single yellow nutsedge plant is capable of producing 1000 tubers per square meter in a single growing season," says Jackson. "Undisturbed, each one of those tubers can create a dense stand of shoots covering several square meters in just one growing season."

Tubers continue to form in dry weather or "short days," when actual vegetative growth might be slowed, and also remain viable in the soil for two to four years.

Under optimum growing conditions, purple nutsedge is more vigorous and competitive, according to Dr. Jackson.

"In southern and western states, both nutsedges can coexist," Jackson explains. "On unirrigated areas, yellow nutsedge is usually found on low, moist areas, while purple nutsedge prefers well-drained soils."

To control purple and yellow nutsedge, Manage herbicide is available from Monsanto. Other products to manage nutsedge include MSMA, Image and Basagran. □

The wide leaves and fast growth habit of nutsedge make it stand out in turfgrass.



Jackson: Yellow nutsedge tubers cover several square meters in one growing season.

Yellow vs. purple: the differences

Tubers

Distinctive tubers are the most prominent underground feature of nutsedge, and the best way to distinguish between yellow and purple varieties.

Yellow nutsedge tubers are produced on the ends of the rhizomes. The rhizomes are easily broken. Tubers are smooth and brown, and have a pleasant almond flavor.

Purple nutsedge tubers are often produced along the entire length of the rhizome, and form a "tuber chain."

These tubers are generally wiry and difficult to break.

They are covered with coarse, dark, reddish scales and have an unpleasant, bitter flavor.

Stems

"Nutsedges have triangular-shaped stems, while grasses usually have hollow, rounded stems," says Jackson.

Purple nutsedge is confined to soils that stay warmer than 30 degrees F.

Yellow nutsedge tubers can tolerate colder soil temperatures and dry weather better.