

## Best Management Practices: Goosegrass

### Description

Goosegrass (*Eleusine indica*) is a very troublesome grass weed found in many aspects of turfgrass management. Historically, one might think of goosegrass as being a golf course or athletic field issue. However, this weed is spreading into other turf areas like lawns and parks. Often, it seems that turf managers have goosegrass under control, but by late July or August goosegrass is everywhere. A greater presence of goosegrass has been observed in cool-season turf throughout the Midwest and Northeastern United States over the last several years. It particularly can be a problem on driving range tees. Although it is more common to see goosegrass in warmer climates, it has been documented up the East coast to Massachusetts.



### Habitat

Goosegrass is a native plant of temperate to tropical climates. It competes successfully with warm and cool-season turfgrass during summer months in situations where the canopy has been thinned due to various turfgrass pests, areas of poor fertility, or intense traffic. This weed demonstrates a high degree of tolerance to drought conditions. With that being said, goosegrass is well equipped to establish itself in dense turf stands and surviving mowing heights from putting greens to lawns.



### Identification

Goosegrass is a prostrate-growing summer annual with a flat stem. Mature plants grow in clumps with the base of the stems being distinctively white to silver in color hence one of its most common synonyms silver crabgrass. The ligule is toothed, membranous, and divided at the center resembling the letter 'M'. The seed heads contain 2 -7 spikes that form at the tip of the seed stalk resembling a zipper.

Its main way of reproduction is by seed. Goosegrass typically germinates later in spring compared to other annual grasses like crabgrass. Goosegrass germinates when soil temperatures reach 63 to 65°F, which is usually at least two to four weeks later than crabgrass. Research has found that fluctuating daytime temperatures of 85 to 95° F with nighttime temperatures in the upper 60s to mid-70s stimulates goosegrass germination.



## Management

### Cultural:

Goosegrass is highly competitive during warmer parts of the year and can thrive if conditions are not favorable for desired turf. In salt-tolerant grasses, like seashore paspalum, pouring rock salt on the crown of the plant can desiccate individual goosegrass plants. Severe infestations may indicate the need for improved cultural practices such as aerification to alleviate compaction. Sound agronomic practices that improve the growing conditions of turf may also reduce goose grass competition.

### Chemical:

Preemergence herbicides used for crabgrass control can be an effective tool for goosegrass control. Preemergence herbicides targeting goosegrass should be delayed approximately 3 to 4 weeks after preemergence crabgrass application. Goosegrass has developed resistance to dinitroaniline herbicides and metribuzin, so it is important to use sound rotational practices. Since the change in MSMA use restrictions, postemergence goosegrass control has become more challenging. Even though selective herbicides effective on goosegrass are limited, there are still some that can provide effective control. Dismiss and Dismiss South both will control goosegrass when applied to newly emerged weeds in the 1-4 leaf growth stage. Research has demonstrated that a combination of 8 fl oz/A Dismiss + 17 fl oz/A Revolver® provides effective postemergence control of larger goosegrass plants. By combining sound management practices with herbicides strategies containing Dismiss or Dismiss South will result in effective goosegrass control and a healthier turf stand.

### References

Photo Courtesy: Aaron Hathaway, Michigan State Univ.

Color Atlas of Turfgrass Weeds: A Guide to Weed Identification and Control Strategies. L.B. McCarty et al. 2<sup>nd</sup> ed. 2008 John Wiley and Sons, Inc.

Goosegrass: The new king of turfgrass weeds? J.S. McElroy, Ph.D. 2015. Golf Course Management. Vol. 83:5. pp. 90-94.

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