



### Overview

Doveweed (*Muridania nudiflora*) is a member of the Spiderwort family, the same family that contains Common Dayflower. It is a unique weed because the foliage is grass-like but has a flower like a broadleaf weed. This weed can be difficult to see in St. Augustine grass or Zoysiagrass home lawns because the leaf shape and color are very similar to the turfgrass. It can survive mid- to high mowing heights and thrives in moist soils. It is a growing problem in home lawns and golf course fairways, roughs, tees, and other areas where turfgrass is grown. Doveweed is commonly found in the Southeastern states but has continued to spread into the Carolinas and west into Texas.

### Habitat

Populations may initially establish in poorly drained or overwatered areas where water and nutrients are readily available. It is not uncommon to see Doveweed around irrigation heads or at the bottom of swales. It readily takes advantage of thinned or stressed areas. This weed germinates when soil temperatures reach 65° to 70°F. Unfortunately, this is the same time when preemergence herbicide applications made for summer annual grasses begin to fade.

### Identification

Doveweed is a summer annual weed that has a grass-like appearance. It produces thick, fleshy leaves with an alternate arrangement attached to a round stem that spreads laterally across the soil surface. Leaf length can be up to 4 inches long and 1/4 inch wide. Small hairs may be observed on the leaf sheath. Doveweed produces small flower heads throughout the summer, with three fruiting bodies each producing a blue to purple flower with three petals. This plant roots at each node resulting in a mat-forming growth habit. Doveweed produces seed when temperatures fall below 70°F.

### Management

#### *Cultural*

The best cultural management for Doveweed is establishing a healthy and competitive turfgrass. Correcting drainage issues or closely monitoring irrigation use in infested areas will aid in turfgrass growth. Maintaining proper mowing heights and balanced fertility will ensure the desirable turf is growing as competitively as possible. If performing aggressive cultivation, be sure to clean equipment prior to cultivating non-infested

areas, as Doveweed can establish in new areas from stolon fragments and seeds that transfer via equipment.

### **Chemical**

Chemical management programs may be a multiple season process. Because of Doveweed's aggressive nature and seed viability over time, a successful management program may need to include multiple herbicide applications. Doveweed is generally not controlled when preemergence herbicides are applied in early spring to prevent crabgrass. If a preemergence herbicide is to be used, applications should be delayed closer to doveweed emergence, or split applications for optimal timing if targeting multiple weed species. Postemergence herbicides can be effective by targeting the early growth stages. Grass-like weeds are generally more susceptible to postemergence herbicides when in an immature growth stage.

Blindside® has demonstrated successful Doveweed control in warm season turfgrass. Applying sequential applications 14 - 21 days apart has proven effective for long-term Doveweed control. Summer applications of Blindside can be a useful tool for managing doveweed as well as other problem summer weeds like dollarweed, yellow nutsedge and kyllinga.

#### References

- 2010. Weeds of Southern Turfgrasses. SP 79. University of Florida/IFAS Extension
- 2008. Color Atlas of Turfgrass Weeds: A Guide to Weed Identification and Control Strategies. L.B. McCarty et al. 2nd ed. John Wiley and Sons, Inc. ncsu.edu

Photo(s) Courtesy

Figure 1. Dr. L.B. McCarty, Clemson University



*Doveweed foliage and flowers*