

Best Management Practices: Doveweed

Description

Doveweed is a member of the Spiderwort family. It is an interesting weed as it has the vegetative look of a grass weed, but a flower like a broadleaf weed. This weed can be difficult to see in St. Augustinegrass home lawns because the leaf shape and color are very similar to the turfgrass. It can survive mid- to high mowing heights of all warm-season turfgrass types. It is a growing problem in home lawns and golf course fairways, roughs, and tees as well as other turfgrass situations. Doveweed is commonly found in the southeastern states, but has continued to spread into the Carolinas and west in Texas.



Habitat

Populations may initially establish in poorly drained or over-watered areas where water and nutrients are readily available. It can readily take advantage of thinned or stressed areas. Normally, this weed germinates after summer annual grass weeds. Germination begins when soil temperatures are warmer around 65 to 70°F with peak germination at 82°F. Summer annual grasses like crabgrass germinate when soil temperatures reach 53 – 57°F. It is not uncommon to see doveweed around irrigation heads or at the bottom of swales.



Identification



Doveweed is a summer annual weed that has a grass-like appearance. It produces thick, shiny leaves with an alternate arrangement attached to a round stem that spreads laterally across the soil surface. Its leaves are very similar in width and shape to St. Augustinegrass. Leaf length could be as long as 4 inches and up to 0.25 inches wide. Small hairs may be observed on the leaf sheath. Unlike grass weeds, it produces small flower heads throughout the summer with three fruiting bodies each producing a blue to purple flower with three petals. This plant is capable of rooting at the nodes, which results in a decumbent, or mat-forming growth habit. Doveweed will produce seed in fall.

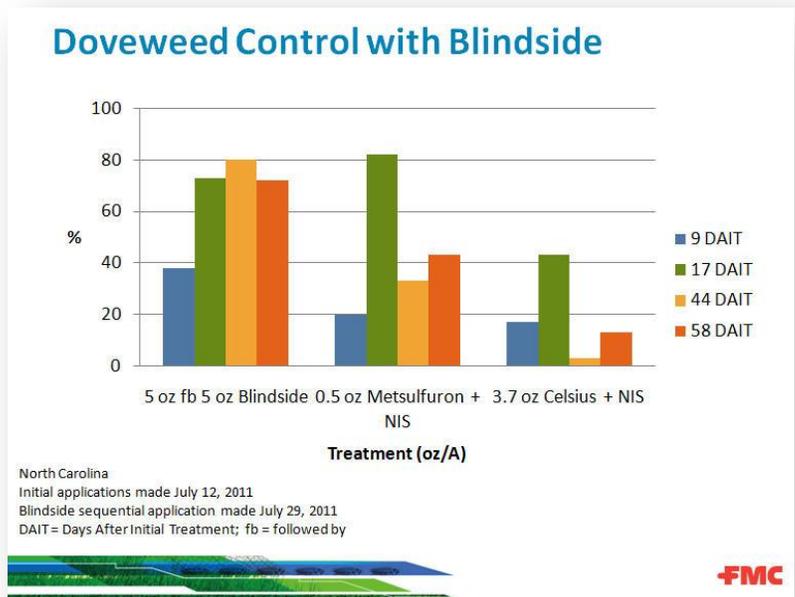
Management

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. Doveweed is capable of establishing in new areas from stolon fragments that transfer via equipment.

Chemical:

Chemical management programs may be a multiple season process. Because of its 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. 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 effective doveweed control in warm-season turfgrass. Blindside is a mixture of sulfentrazone and metsulfuron. Applying sequential applications 14 - 21 days apart has proven effective for long-term doveweed control. Summer applications of Blindside can be a very useful tool for managing doveweed as well as other problem summer weeds like dollarweed, yellow nutsedge, and kyllingas.



References

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