

LOUISIANA HOME LAWN SERIES

A guide to maintaining a healthy Louisiana lawn



Virginia buttonweed

Description

Virginia buttonweed (*Diodia virginiana* L.) is a warm-season perennial weed common throughout Louisiana. It spreads primarily by seed, but it can also spread vegetatively through stem fragments. Although this weed is adapted to a wide range of soil states, it favors moist conditions. Virginia buttonweed is considered the most troublesome lawn weed in Louisiana for several reasons: Its low growth allows it to tolerate mowing; its seeds can persist in the soil for long periods of time; and it is easily propagated through stem fragments, which are frequently spread via mowing.



Virginia buttonweed

Identification

Virginia buttonweed can be identified by linear to oval-shaped leaves arranged in an opposite orientation along the stem. It produces small, oval-shaped fruits and small, white flowers, each with four petals. It is commonly observed growing as a dense, low-to-the-ground mat — especially in established turfgrass lawns. For more information on Virginia buttonweed identification and characterization visit the USDA Plants Database at <https://plants.usda.gov>.



Fruit



Flowers



Matted growth habit

Cultural Control Practices

The best way to prevent or reduce weed encroachment is to maintain a healthy lawn through regular mowing and proper fertilization and soil pH management. Reducing excess soil moisture through proper drainage and irrigation management is also key to preventing and reducing doveweed invasion. Properly maintaining a lawn through these cultural practices promotes dense and vigorous turfgrass and allows the lawn to better compete with weeds. Below are the recommended mowing heights and nitrogen fertility rates recommended for each turfgrass species. In addition to these lawn care practices, manual removal of weeds may also be necessary.

Turfgrass	Mowing height	Nitrogen Rate (per 1,000 ft ² per year)
Bermudagrass	1 - 2 inches	2 - 3 pounds
Centipedegrass	1 - 2.5 inches	0.5 - 2 pounds
St. Augustine grass	2.5 - 3 inches	1 - 3 pounds
Zoysia	1 - 2.5 inches	0.5 - 2 pounds

Chemical Control Practices

In addition to cultural practices, herbicide applications may be required to achieve effective weed control. Pre-emergence herbicides are not effective on Virginia buttonweed. The weed is tolerant of most selective post-emergence herbicides as well.

A herbicide program approach works best to control Virginia buttonweed. Managing the weed should start in early spring as perennial plants emerge from winter dormancy. April and May are good months to begin spraying buttonweed in spot applications with a herbicide containing 2,4D; dicamba; mecoprop; and carfentrazone. Herbicide applications during the spring will kill germinating seedling plants and injure perennial plants. Once temperatures exceed 85 degrees Fahrenheit, herbicides containing 2,4-D cause too much injury to St. Augustine grass and centipedegrass. During the summer, metsulfuron or products such as Celsius, which contains thiencazone, dicamba and iodosulfuron, should be applied. Always repeat metsulfuron or Celsius applications four to six weeks after the initial application. Single herbicide applications, especially late in the season, have not been effective on mature Virginia buttonweed. When using any herbicide, always follow the manufacturer's labeled directions.

For more information regarding pesticides for turfgrass please reference the Louisiana Suggested Chemical Weed Control Guide at the LSU AgCenter website www.lsuagcenter.com.

	St. Augustine grass	Centipedegrass	Zoysia	Bermudagrass
Post-emergence Herbicide Active Ingredients				
metsulfuron methyl	✓	✓	✓	✓
2, 4D + dicamba + mecoprop	✓	✓	✓	✓
2, 4D + dicamba + mecoprop + carfentrazone	✓	✓	✓	✓
thiencazone + dicamba + iodosulfuron	✓	✓	✓	✓

For information regarding weed identification and control options please contact your local LSU AgCenter Extension Parish Office. To find your local LSU AgCenter Extension Parish Office visit www.lsuagcenter.com.

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