

## Chamberbitter

Chamberbitter (*Phyllanthus urinaria*) is also known as gripeweed, leafflower or little mimosa. It is a warm-season, annual, broadleaf weed that emerges from warm soils beginning in early summer. It reproduces by seeds, which are found in the green, warty-like fruit attached to the underside of the branch.

Chamberbitter grows upright and has a well developed taproot. The leaves are arranged in two rows on the branchlets and are thin and oblong, with smooth margins, resembling a mimosa seedling.



Chamberbitter (*Phyllanthus urinaria*).  
Nancy Loewenstein, Auburn University, Bugwood.org

Management of chamberbitter is best achieved through the integrated use of mechanical, cultural, and chemical methods.

### Mechanical Control

Mechanical weed control involves the physical removal of the weed from the soil. This is best accomplished by hand when weeds are young and small, or in the seedling stage, and is made easier if the soil is moist. Preventing the weed from reaching maturity and setting seed also reduces future weed populations.

### Cultural Control

Cultural weed control is the prevention of weeds through proper lawn management practices. A properly mowed turf that is not stressed by insects, diseases, drought, or nutrient imbalance is the best defense against weeds. For more information on watering, fertilizing and mowing see the following fact sheets: [HGIC 1201, Fertilizing Lawns](#), [HGIC 1205, Mowing Lawns](#) and [HGIC 1207, Watering Lawns](#).

Within landscape beds, apply two to three inches of mulch in the spring to cover seeds from the previous season. Because chamberbitter seeds require light to germinate, this is especially effective.

### Chemical Control in Lawns

**Preemergence Herbicides:** Because preemergence herbicides prevent seedlings from developing, they are an effective tool against annual weeds. However, they will not affect established weeds. Timing is critical. They must be applied prior to seed germination.

Atrazine is effective for preemergence control of chamberbitter in centipedegrass and in St. Augustinegrass lawns. Be careful not to apply on turf during the transition period from dormancy to active growth (spring green-up). Because chamberbitter tends to germinate in late spring and early summer, applications after grasses green up are effective. Target areas where chamberbitter was observed the previous season and be careful to not apply near the roots of desirable landscape plants. See Table 1 for examples of products.

Isoxaben is a preemergence herbicide that is effective for chamberbitter control in tall fescue, centipedegrass, St. Augustinegrass, bermudagrass and zoysiagrass lawns. For home lawn use it is purchased in a granular form, and the granules must be watered-in to allow the isoxaben to coat the soil surface for weed prevention. See Table 1 for examples of products.

Isoxaben is also available as an additional active ingredient in one Bayer Advanced brand three-way herbicide. With this product, the postemergence, three-way, broadleaf weed control portion controls existing chamberbitter plants. The isoxaben portion will aid in preventing reinfestation of the area from seeds that may be present. To prevent new seeds from growing, the entire area to be protected must be sprayed. Wait 2 days after spray application and activate the isoxaben residual barrier by watering the lawn with ¼ to ½ inch of irrigation. Do not seed or overseed within 60 days after application. Do not apply isoxaben to a newly seeded lawn until it has been mowed 3 times. See Table 1 for an example of product.

**Postemergence Herbicides:** Postemergence herbicides are most effective when applied to young weeds. For postemergence control of chamberbitter in St. Augustinegrass and centipedegrass lawns, atrazine is recommended. It has both preemergence and postemergence properties. Make two applications spaced 30 days apart.

On tall fescue, bermudagrass, and zoysiagrass lawns, repeat applications of three-way herbicides that contain 2,4-D, mecoprop (MCP) and dicamba can be used to control chamberbitter. Apply these herbicides in late spring or early summer when the weeds are still young and space applications seven days apart. These three-way herbicides may also be

used on centipedegrass and St. Augustinegrass lawns at reduced rates and after the grasses have completely greened-up in the spring. Read the product labels for rates to mix and apply. See Table 1 for examples of products. For more information refer to [HGIC 2310, \*Managing Weeds in Warm-Season Lawns\*](#).

Celsius WG Herbicide, which contains thiencazone, iodosulfuron, and dicamba, will control chamberbitter, especially if applied when the average daily temperatures are over 60° F. Apply when chamberbitter is actively growing and again 2 to 4 weeks later. The addition of a non-ionic surfactant, such as Southern Ag Surfactant for Herbicides, will increase control.

### **Control in Landscape Beds**

**Postemergence Herbicides:** The best choice for controlling existing chamberbitter in landscape beds is one of the many products containing glyphosate. Glyphosate will move through the plant and into the roots to kill the entire plant. See Table 1 for examples of products.

Glyphosate is a non-selective herbicide which can potentially damage any plant through contact with foliage or bark. Protect desirable plants from drift by not spraying in windy conditions, by keeping the spray nozzle close to the ground, and by using low pressure. Further protection is provided by attaching a plastic, cone shaped shield that surrounds the spray nozzle and confines the spray to the targeted plants. Shields can be made from bottomless two-liter drink bottles. Plants can also be shielded by covering with cardboard or something similar that is disposable.

When herbicides are applied to beds intended for future planting of ornamentals, care must be taken as various herbicides may injure the plants to be installed. For planned beds, glyphosate has far less soil activity (a few days) as compared with the three-way herbicides (a few weeks). Glyphosate is the safest choice for spray application in existing flower and shrub beds, so long as care is taken to prevent drift to non-target plants. Glyphosate applications are much less apt to move through the soil, be absorbed by roots, and injure existing woody ornamental shrubs.

**Preemergence Herbicides:** Isoxaben can be applied as a preemergence herbicide in landscape beds around certain well-established ornamental shrubs and trees to prevent chamberbitter from growing from seed. Products are best put below the mulch layer. Do not apply pre-emergence herbicides in beds where new plants will be installed, as plant root development may be inhibited. See Table 1 for examples of products.

**Pesticide Safety**

Always read the pesticide label and follow its directions exactly. Be sure to observe all precautions listed on the label. Mix pesticides at the rate recommended and never use more than the label says. Wear protective clothing or equipment as required by the label when mixing or applying pesticides. You may use the pesticide only on sites or crops listed on the label. Follow all label directions for pesticide storage and disposal. Always heed the six most important words on the label: **"Keep out of reach of children."**

**Table 1. Examples of Herbicides for Chamberbitter Control in Turfgrass & Landscape Beds.**

Brands & Specific Products	Herbicide Active Ingredient	% Active Ingredient in Product	Site Labeled for Use
Bayer Advanced Weed Killer for Lawns Concentrate; & RTS <sup>1</sup> Bayer Advanced Southern Weed Killer for Lawns Concentrate; & RTS <sup>1</sup>	2,4-D Mecoprop Dicamba	7.59 1.83 0.84	Tall Fescue Bermudagrass Zoysiagrass  Use at lower label rate on: St. Augustinegrass Centipedegrass
Ferti-lome Weed-Out Lawn Weed Killer Concentrate	2,4-D Mecoprop Dicamba	5.88 5.45 1.21	
Southern Ag Lawn Weed Killer with Trimec <sup>®</sup> Concentrate	2,4-D Mecoprop Dicamba	3.05 5.30 1.29	
Spectracide Weed Stop for Lawns RTU <sup>2</sup>	2,4-D Mecoprop Dicamba	0.593 0.144 0.066	
Bayer Advanced Season Long Weed Control for Lawns Bayer Advanced Southern Season Long Weed Control for Lawns	2,4-D Mecoprop Dicamba Isoxaben	4.73 1.10 0.52 2.63	
Hi-Yield Atrazine Weed Killer	Atrazine	4.00	
Southern Ag Atrazine St. Augustine Weed Killer	Atrazine	4.00	Centipedegrass St. Augustinegrass
Image Herbicide for St. Augustine & Centipede with Atrazine	Atrazine	4.00	
Celsius WG Herbicide <sup>3</sup>	Thiencarbazone Iodosulfuron Dicamba	8.7% 1.9% 57.4%	Bermudagrass Zoysiagrass Centipedegrass St. Augustinegrass <sup>4</sup>

Ferti-lome Broadleaf Weed Control with Gallery	Isoxaben (pre-emergence)	0.38	Tall Fescue Bermudagrass Zoysiagrass St. Augustinegrass Centipedegrass Landscape beds
Harrell's Fertilizer with Gallery	Isoxaben (pre-emergence)	0.38	Tall Fescue Bermudagrass Zoysiagrass St. Augustinegrass Centipedegrass
Snapshot 2.5TG	Isoxaben Trifluralin (pre-emergence)	2.0% 0.5%	For use in landscape beds only. Small amounts getting into lawn adjacent to beds should not hurt lawn.
Ace Concentrate Weed & Grass Killer Roundup Original Concentrate Roundup Pro Herbicide Martin's Eraser Systemic Weed & Grass Killer Hi-Yield Super Concentrate Killzall Weed & Grass Killer Bonide Kleenup Grass & Weed Killer Concentrate; & RTU <sup>2</sup> Eliminator Weed & Grass Killer Super Concentrate Gordon's Groundwork Concentrate 50% Super Weed & Grass Killer Knockout Weed & Grass Killer Super Concentrate Monterey Remuda Full Strength 41% Glyphosate Quick Kill Grass & Weed Killer Southern States Grass & Weed Killer Concentrate II Tiger Brand Quick Kill Concentrate Total Kill Pro Weed & Grass Killer Herbicide Ultra Kill Weed & Grass Killer Concentrate Zep Enforcer Weed Defeat III	Glyphosate	41% (most brands)	Not for use within lawn, as spot spraying will kill adjacent turfgrass. Typically for use in landscape beds only.
<sup>1</sup> RTS: Ready-to-Spray (hose-end sprayer) <sup>2</sup> RTU: Ready-to-Use (pre-mixed spray bottle for spot spraying) <sup>3</sup> This mix of active ingredients requires the addition of 2 teaspoons of a non-ionic surfactant (that is, a wetter-sticker agent to aid in weed control at 0.25% by volume) per gallon of water, such as Hi-Yield Spreader Sticker. <sup>4</sup> Spot treatments to St. Augustinegrass at temperatures above 90 degrees may cause temporary growth regulation. <b>Note:</b> Do not apply postemergence herbicides, except Celsius WG Herbicide, to lawns during the spring green up of turfgrass.			

Pesticides updated by Joey Williamson, HGIC Horticulture Extension Agent, Clemson University 10/16. Originally prepared by Chuck Burgess, HGIC Information Specialist, Clemson University. New 09/05. Revised by Joey Williamson, HGIC Horticulture Extension Agent, Clemson University 09/10; Image added 09/10.

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