

Henbit

[*Lamium amplexicaule* L.]

DESCRIPTION

Henbit is a common winter annual or biennial weed found in North Carolina waste areas. Stems grow primarily upright but can root at the lower nodes. It branches freely from the base stems which are green or purple in color. Leaves are rounded, coarsely toothed, hairy, and deeply veined. Flowers are in whorls in the axils of the upper leaves. Petals are purple and fused into a two-lipped tube. It is similar to purple deadnettle in appearance but its upper leaves do not have petioles, whereas purple deadnettle's do. Purple deadnettle also has upper leaves that are distinctly red- or purple-tinged. Purple deadnettle and henbit both have distinctive four-sided (square) stems, and flower in early spring.



Characteristic	Description
Growth Season	winter annual or biennial weed
Growth Habit	stems are prostrate, but erect at the tip, square (four-sided), and often purple-tinged
Leaflet Number	one
Leaf Margin	bluntly toothed
Leaf Hairs	dense on upper surface, along the veins on lower surface
Leaf/Leaflet Shape	heart/kidney/spade
Leaf Width	1/2 - 2 inches
Leaf Venation	palmate
Leaf Arrangement	opposite
Root Type	fibrous
Flower Color	blue/purple



henbit flowers



henbit, leaf attachment

Note: Still not sure this is the right weed? [The Turf & Weed Identification Decision Aid](#) may help. Check the TurfFiles [glossary](#) for definitions of unfamiliar terms.

CULTURAL CONTROL

Winter annual broadleaf weeds germinate in the fall or winter and grow during any warm weather, which may occur in the winter, but otherwise remain somewhat dormant during the winter. They resume growth and produce seed in the spring and die as temperatures increase in late spring and early summer. They quickly invade thin turf areas especially where there is good soil moisture. Shade may also encourage growth. Many have a prostrate growth habit and are not affected by mowing. A dense, vigorous turf is the best way to reduce the encroachment of winter annual weeds. First, select adapted turfgrass cultivars for your area and then properly fertilize, mow, and water to encourage dense growth.

CHEMICAL CONTROL

Henbit is a winter annual broadleaf weed that is difficult to control. In cool season turf, fall applications of two, three and four way broadleaf herbicides will provide fair to good control, with control dropping off if spring applied. In warm season turf, excellent control is achieved with various sulfonylurea herbicides applied in fall or early spring.

Some of the Revolver (foramsulfuron) treatments included below were applied at the spot treatment rate, which is higher than the 0.6 oz/1000 sq ft broadcast rate. Note that spot treatments of Revolver cannot be applied to more than 10,000 sq ft of every acre treated.

Preemergence herbicides:

Herbicide	Tolerant Turfs ⁽¹⁾	Average Efficacy Rating ⁽²⁾	Range of Trial Efficacy Values, %	Number of Trials	Products ⁽³⁾
atrazine*	be, c, sa, z	E		0	AAtrex 4L
simazine	be, c, sa, z	E		0	Princep
isoxaben	ba, bc, be, bk, c, f, r, sa, z	G-E		0	Gallery 75
dithiopyr	ba, bc, be, bk, c, f, r, sa, z	G		0	Dimension, Quali-Pro Dithiopyr**, Vigoro Crabgrass Preventer, Vigoro Dimension
oryzalin	ba, be, c, f, sa, z	G		0	Quali-Pro Oryzalin, Surflan A.S.
pendimethalin	ba, be, bk, c, f, r, sa, z	G		0	Pendulum, PRE-M, Scott's Turf Builder With Halts
prodiamine	bc, be, bk, c, f, r, sa, z	G		0	Barricade, Lesco Stonewall, Quali-Pro Prodiamine, RegalKade

Postemergence herbicides:

Herbicide	Tolerant Turfs ⁽¹⁾	Average Efficacy Rating ⁽²⁾	Range of Trial Efficacy Values, %	Number of Trials	Products ⁽³⁾
glyphosate		E	89 - 100	13	Glyphosate Original, Roundup, Touchdown Pro**
metsulfuron	be, sa, z	E	95 - 100	9	Escort**, Manor

Postemergence herbicides:

Herbicide	Tolerant Turfs ⁽¹⁾	Average Efficacy Rating ⁽²⁾	Range of Trial Efficacy Values, %	Number of Trials	Products ⁽³⁾
rimsulfuron**	be	E	95 - 100	6	TranXit GTA
trifloxysulfuron-sodium	be, z	E	97 - 100	3	Monument
2,4-D & dicamba & mecoprop & sulfentrazone	bc, bk, f, r, z	E	100	1	Dismiss & Trimec Classic, Surge*
fluroxypyr & metsulfuron	sa, z	E	100	1	Manor & Spotlight
citrus oil		G	85	1	Nature's Avenger
sulfosulfuron	ba, be, c, sa, z	G	90	1	Certainty
imazaquin	be, c, sa, z	G		0	Image
metribuzin	be	G		0	Sencor 75 Turf
foramsulfuron	be, z	F	16 - 100	4	Revolver
diquat		F	74	1	Reward Landscape and Aquatic
glyphosate & imazapic**		F	71	1	Plateau & Roundup

* For use only by or under the supervision of a certified applicator, or by commercial nursery, turf, and landscape personnel.

** Not for application to residential lawns.

Footnotes:

(1) **Turfgrass Codes:**

- ba bahiagrass
- bc bentgrass, creeping
- be bermudagrass
- bk bluegrass, Kentucky
- c centipedegrass
- f fescue, tall
- r ryegrass, perennial
- sa St. Augustinegrass
- z zoysiagrass
- blank No turfgrass in the database is completely tolerant. Check label to see if chemical can be used at a reduced rate or during the dormant season on your turfgrass.

(2) **Efficacy Ratings:**

- E excellent control (90 to 100%)
- G good control (80 to 90%)
- F fair control (70 to 80%)

Efficacy ratings are based on herbicide trials performed by weed scientists at North Carolina State University between 1997 and 2007. The number of trials included in the efficacy ratings is displayed in the next-to-last column. The higher this number, the more confidence can be placed in the efficacy values. Trials may have involved sequential applications of one or more chemical. Details of individual trials (herbicide rates, dates of application, environmental conditions at time of application, etc) can be viewed on the TurfFiles web site, through the [Turf Weed Management Decision Aid](#).

Efficacy ratings for chemicals lacking trial data are from "[Pest Management Strategic Plan for Turfgrass in the Southern United States](#)," a summary of a workshop for turf experts from multiple universities held in Griffin, GA in October, 2004. The workshop was sponsored by the Southern Region Integrated Pest Management Center.

- (3) Recommendations of specific chemicals are based upon information on the manufacturer's label and performance in a limited number of trials. Because environmental conditions and methods of application may vary widely, performance of the chemical will not always conform to the safety and pest control standards indicated by experimental data. The order in which brand names are given is not an indication of a recommendation or criticism.

Recommendations for the use of agricultural chemicals are included in this publication as a convenience to the reader. The use of brand names and any mention or listing of commercial products or services does not imply endorsement by North Carolina State University or discrimination against similar products or services not mentioned. Other brand names may be labeled for use on turfgrasses. Individuals who use agricultural chemicals are responsible for ensuring that the intended use complies with current regulations and conforms to the product label. Be sure to obtain current information about usage regulations and examine a current product label before applying any chemical. For assistance, contact your county's Cooperative Extension agent.

Links contained in this document:

Glossary: <http://www.turffiles.ncsu.edu/Glossary.aspx>

Pest Management Strategic Plan: <http://www.ipmcenters.org/pmsp/pdf/SouthernTurfgrass.pdf>

Turf & Weed Identification Decision Aid: <http://www.turffiles.ncsu.edu/turfid/>

Turf Weed Management Decision Aid: <http://www.turffiles.ncsu.edu/turfweedmgmt/>

© North Carolina State University. This information sheet was prepared by Fred Yelverton, Bridget R. Lassiter, Gail G. Wilkerson, Leon Warren, Travis Gannon, Jenifer J. Reynolds, and Gregory S. Buol. Department of Crop Science, College of Agriculture & Life Sciences, North Carolina State University. Prepared April 16, 2008. Available on-line at www.turffiles.ncsu.edu. This publication was made possible through a grant provided by the Center for Turfgrass Environmental Research & Education (CENTERE) whose purpose is to support worthwhile projects that will benefit both the private sector and the public, and protect the environment.