

Crabgrass, Large

[*Digitaria sanguinalis* (L.) Scop.]

DESCRIPTION

Large crabgrass (also called hairy crabgrass) is a common weed in turfgrass situations, and can germinate from March through early May in North Carolina when soil temperatures reach 53 to 58°F at a 4-inch depth. This weed is found in a variety of habitats. Germination of this weed is encouraged by the alternating dry and wet conditions at the soil surface in the spring. Stems have a prostrate growth habit and may root at the lower nodes. Large crabgrass is similar to smooth crabgrass. However, the leaf blade of smooth crabgrass is not as hairy, with a few hairs near the base of the blade. Leaf blade edges of smooth crabgrass are either not hairy or have sparse hairs.



Characteristic	Description
Seedhead / Flower	raceme; 2 - 9 spikelets arising from different points along the top of stems
Vernation Type	leaves rolled in the bud
Ligule Type	membranous; 0.04 - 0.08 inches (1 - 2 mm) long, rounded to sharp pointed, toothed, often reddish
Growth Season / Life Cycle	summer annual weed
Auricle Type	absent
Leaf Blade Tip Shape	sharp-pointed; covered with short hairs on both surfaces, sharply creased below, edges rough with scattered hairs
Leaf Blade Width	0.2 - 0.6 inches (5 - 15 mm) wide
Stolon Presence	present
Rhizome Presence	absent
Collar Type	indistinct, mostly divided, hairy edges
Sheath Margin	open
Sheath Type	flattened; sheath has long hairs; often with purple veins



large crabgrass seedhead



large crabgrass ligule, auricles

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

Crabgrass will grow under close mowing conditions. Competition is enhanced by thin open turfgrass stands, improper mowing heights for the desired turf, summer fertilization, and light, frequent irrigation. For crabgrass control, practice procedures outlined to maintain a dense, actively growing turf.

CHEMICAL CONTROL

In areas where there is a crabgrass history, apply a preemergence herbicide in the spring when soil temperatures approach 50°F, which corresponds to about the time that forsythia blooms in North Carolina. These herbicides may be used effectively on home lawns, athletic fields, golf fairways, and parks; however, extreme care should be used when applying them to golf course greens because of variable management practices and turf tolerance. A second preemergence treatment eight weeks after the initial application may be necessary to maintain season-long control of crabgrass. Arsonate herbicides (DSMA, MSMA, CMA), fenoxaprop (Acclaim Extra) or quinclorac (Drive) may be applied postemergence for control of emerged crabgrass early in the summer in certain turfgrasses. However, MSMA will be phased out in 2009. Because turfgrasses vary in tolerance to preemergence and postemergence herbicides, check labels for tolerance information.

Preemergence herbicides:

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

Postemergence herbicides:

Herbicide	Tolerant Turfs ⁽¹⁾	Average Efficacy Rating ⁽²⁾	Range of Trial Efficacy Values, %	Number of Trials	Products ⁽³⁾
prometon		E	98 - 100	2	Spectracide Total Vegetation Killer
trifloxysulfuron-sodium	be, z	E	91	1	Monument
sethoxydim	c	E		0	Vantage
fenoxaprop	bk, f, r, z	G-E		0	Acclaim Extra
MSMA***	be, r	F	75	1	MSMA (various brands)
metribuzin	be	F		0	Sencor 75 Turf

* 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.

*** MSMA will be phased out in 2009.

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.