

Dogfennel

[*Eupatorium capillifolium* (Lam.) Small]

DESCRIPTION

Dogfennel is a perennial weed common to turf, roadsides and container plants. Depending on the management practices for the site, dogfennel can grow to be a very tall plant (exceeding 3 feet in height), or may reach maturity as a short plant (less than 6 inches). The finely dissected leaves of the plant make it easy to identify, and when crushed, the leaves and stems have a very distinct odor that is slightly sour and musty. The stems of dogfennel are soft and easily broken when young, but become very tough and woody as it ages. In addition, the stems are very conspicuously hairy, especially when young, but leaves are always hairless. Dogfennel could be confused with several other common turf weeds, including horseweed and mugwort. However, mugwort has very distinctive white woolly hairs on the underside of each leaf, and horseweed has elongated leaves with few to no serrations, and dogfennel has highly divided leaves.



Characteristic	Description
Growth Season	perennial weed
Growth Habit	upright, may reach more than 6 ft. (2 m) in height
Leaflet Number	one
Leaf Margin	deeply lobed, with serrated edges
Leaf Hairs	none
Leaf/Leaflet Shape	
Leaf Width	
Leaf Venation	pinnate
Leaf Arrangement	lower leaves may be opposite, but upper leaves are alternate
Root Type	fibrous
Flower Color	inconspicuous, greenish-white



dogfennel



dogfennel seedling

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

Perennial broadleaf turf weeds are capable of living more than two years. They thrive in weak, thin turf; golf fairways and roughs; home lawns; playfields; and industrial grounds. Proper turf maintenance is the key to control of this weed. First, select adapted turfgrass cultivars for your area and then properly fertilize, mow, and water to encourage dense growth.

CHEMICAL CONTROL

Because dogfennel is a perennial, it can be difficult to control. However, in our research trials, we have had excellent control with several products. These include the three- and four-way herbicides that contain 2,4-D and dicamba. We have also had outstanding results with metsulfuron (Manor, Blade, MSM), products that contain triclopyr (Confront, triclopyr ester, etc), and several other herbicides.

Postemergence herbicides:

Herbicide	Tolerant Turfs ⁽¹⁾	Average Efficacy Rating ⁽²⁾	Range of Trial Efficacy Values, %	Number of Trials	Products ⁽³⁾
triclopyr	f, r	E	98 - 100	4	Turflon Ester
clopyralid & triclopyr**	be, bk, c, f, r, z	E	91 - 100	3	Confront
metsulfuron	be, sa, z	E	100	3	Escort**, Manor, MSM Turf
2,4-D & dicamba & mecoprop	bk, f, r, z	E	100	2	MEC Amine-D*, Trimec Bentgrass, Trimec Classic, Trimec Southern, Triplet
2,4-D ester	be, bk, f, r, z	E	100	1	Weedone LV4 EC
atrazine	be, c, sa, z	E	100	1	AAtrex 4L*, Scotts Bonus S
carfentrazone & metsulfuron	be, sa, z	E	100	1	Manor & QuickSilver
fluroxypyr	ba, bk, c, f, r, sa, z	E	100	1	Spotlight
simazine	be, c, sa, z	E	98	1	Princep
dicamba	ba, be, bk, f, r, z	G	43 - 100	3	Banvel, Clarity, Vanquish

* 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 2008. 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/>

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