

# TURFGRASS SCIENCE

at the UT Institute of Agriculture

## WILD VIOLET CONTROL IN TURFGRASS

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### INTRODUCTION

Wild violet (*Viola* spp.) is one of the most difficult to control perennial broadleaf weeds found in managed turfgrass systems such as residential and commercial lawns. There are many species of wild violet and most are difficult to distinguish from one another. Violets are often desirable in ornamental plantings and can escape into turfgrass where they become an undesirable weed.

### CHARACTERISTICS

Wild violet is a low-growing, clumping perennial with heart-shaped leaves that often cup inwards forming a funnel-type shape (Picture 1). The flowers can vary in color; it is not uncommon to see species with white, blue, purple or violet petals (Picture 2). Wild violets grow aggressively from rhizomes and are commonly found in moist, fertile soils that are shaded (Picture 3).

### WILD VIOLET CONTROL OPTIONS

#### *Cultural Practices*

The best defense against any weed infestation is to maintain a dense, vigorous stand of turfgrass. Growing conditions that favor turf often discourage the growth of weeds like wild violet. Decreasing shade and soil moisture will create an environment better suited for turfgrass growth and less conducive for wild violet. Increasing mowing frequency can aid in decreasing wild violet populations; however, this practice does not eradicate them. Additionally, perform soil testing regularly and apply nutrients according to soil test recommendations. While cultural practices can be used to help discourage wild violet infestations, they will not provide complete control. In lieu using a shovel to remove wild violets from turf or replacing sod, herbicide applications will be required for eradication.



Picture 1. Wild violet.

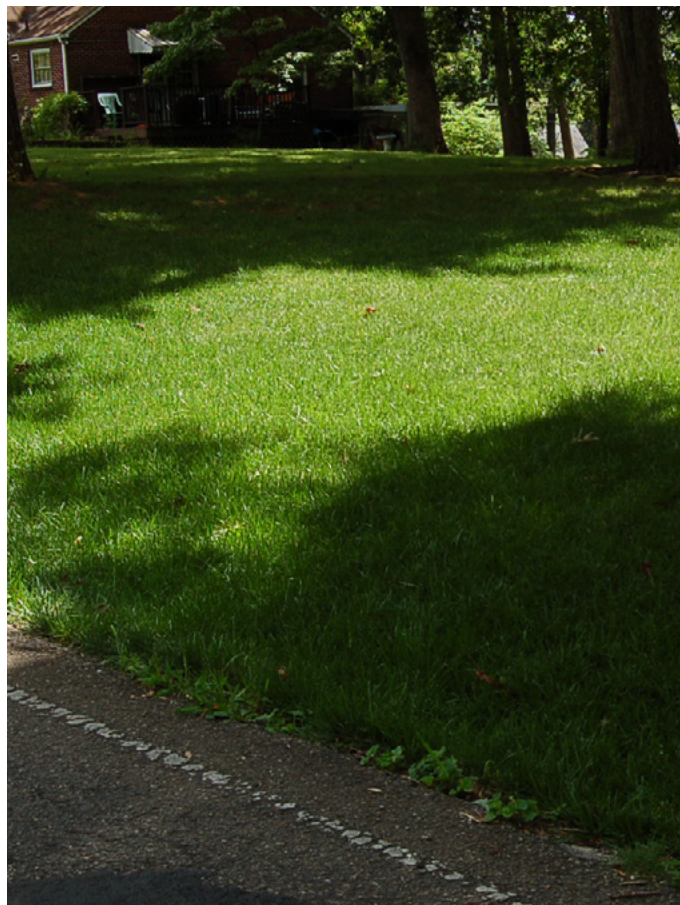
#### *Herbicide Options*

There are no preemergence herbicides labeled for wild violet control. However, several herbicides are available for postemergence control. University of Tennessee research has found that sequential applications of these postemergence herbicides are required to remove wild violet from turfgrass systems. When applied to wild violet, most postemergence herbicides will cause twisting and curling of foliage (Picture 4). This response indicates that the herbicides are working; however, in many cases plants will recover from this symptom and resume normal growth.

Herbicides containing pyridine chemistry (e.g., fluroxypyr, triclopyr, etc.) tend to have the best activity on wild violet. Examples of herbicides containing pyridine chemistry are listed in Table 1. These represent a small subset of the herbicides that can be used to selectively treat wild violet in turfgrass. There is no postemergence herbicide that will eradicate wild violet from turfgrass in a single application; all will need to be applied sequentially (likely over multiple seasons) for complete removal. The optimal time to treat perennial weeds like wild violet is in autumn. Avoid making applications during summer under conditions of high temperature and drought.



Picture 2. Wild violet in bloom.



Picture 3. Wild violet in shade.

Table 1

<i>Trade Name (Active Ingredient)</i>	<i>Formulation</i>	<i>Rate (/A)</i>	<i>Select Tolerant Turfgrass</i>
Confront* (clopyralid + triclopyr)	3 L	1 to 2 pt.	Bermudagrass, Centipedegrass, Fine Fescue, Kentucky Bluegrass, Perennial Ryegrass, Fine Fescue, Tall Fescue, Zoysiagrass
Escalade 2 (2,4-D + fluroxypyr + dicamba)	4 L	2 to 3 pt.	Bermudagrass, Fine Fescue, Kentucky Bluegrass, Perennial Ryegrass, Fine Fescue, Tall Fescue, Zoysiagrass
Momentum 4-Score (fluroxypyr + triclopyr + sulfentrazone + 2,4-D)	1.7 L	3.5 to 4.5 pt.	Fine Fescue, Kentucky Bluegrass, Perennial Ryegrass, Tall Fescue
T-Zone (triclopyr + sulfentrazone + 2,4-D + dicamba)	2.51 L	2 to 4 pt.	Bermudagrass**, Fine Fescue, Kentucky Bluegrass, Perennial Ryegrass, Fine Fescue, Tall Fescue, Zoysiagrass**

\*Not Labeled for Home Lawns

\*\*Dormant Only





Picture 4. Twisting and curling of foliage from postemergent herbicide.

## FINAL THOUGHTS

Wild violet control in established turf can be difficult. Improving cultural practices and applying sequential applications of postemergence herbicides will be required to provide effective control.

Always refer to the product label for specific information on proper product use, tank-mix compatibility and turfgrass tolerance. For more information on herbicide selection, please visit the University of Tennessee Mobile Weed Manual (MWM) at [mobileweedmanual.com](http://mobileweedmanual.com). MWM was developed by UT Extension professionals to assist green industry professionals in selecting herbicides for use in turf and ornamentals. MWM is a web-based platform optimized for use on mobile devices such as smartphones and tablets, but it will function on desktop and laptop computers as well. The site provides users with weed control efficacy information for 90 different herbicides, tolerance information for over 2,300 turf and ornamental species, as well as direct links to label and material safety data sheet information on herbicides used for turf and ornamental weed management. For more information on turfgrass weed control, visit the UT Institute of Agriculture's turfgrass weed science website, [tnturfgrassweeds.org](http://tnturfgrassweeds.org).

### Disclaimer

This publication contains pesticide recommendations that are subject to change at any time. The recommendations in this publication are provided only as a guide. It is always the pesticide applicator's responsibility, by law, to read and follow all current label directions for the specific pesticide being used. The label always takes precedence over the recommendations found in this publication.

Use of trade or brand names in this publication is for clarity and information; it does not imply approval of the product to the exclusion of others that may be of similar, suitable composition, nor does it guarantee or warrant the standard of the product. The author(s), the University of Tennessee Institute of Agriculture and University of Tennessee Extension assume no liability resulting from the use of these recommendations.

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W 807 02/19 19-0146