

Annual Bugloss

(*Anchusa arvensis*)

Description:

Annual bugloss (*Anchusa arvensis*) is an annual, weedy plant that grows from 6 to 24 inches tall and has branching erect or sprawling stems. Larger plants may measure 3 feet in diameter. Both leaves and stems appear rough and wrinkled and are covered with bristly hairs that arise from warty bumps. Alternate, stiff, lanced shaped leaves grow 1 to 2 inches long, with wavy, entire or slightly toothed margins. Leafy, coiled flower stems bear small, sky-blue flowers. The flowers are tube shaped with 5 unequal pale blue lobes flaring from a white center. Each flower produces four nutlets, each containing a seed. Ninety percent of Annual Bugloss seeds buried 6 inches deep remain viable in the soil after 3 years.



Photo by Leo Michels

Impacts:

Annual bugloss invades fields, pastures, and competes with more desirable vegetation such as native plants and crops. Annual Bugloss is in the borage family, of which many species contain pyrrolizidine alkaloids which are toxic to livestock and humans. Because Annual Bugloss seeds can remain dormant for many years, it has become a pesky, persistent weed problem.

Control Options:

Thurston County's Integrated Pest Management emphasizes cultural, biological, and manual control methods to keep pests and vegetation problems low enough to prevent damage. The goal of Thurston County's pesticide use policy is to minimize the use of pesticides by utilizing and providing information about the most effective control options that are available and practical.

► Cultural / Habitat

The most effective control of Annual Bugloss is prevention. Above all, prevent plants from going to seed. Occasionally it is introduced as a component in wildflower seed mixtures. Review the ingredients of wildflower mixes to avoid accidental introduction, and avoid using wildflower mixes with unidentified seed components entirely. To prevent plants from spreading from known infestations, carefully clean vehicles, boots, clothing, and pets after visiting infested areas.



Photo by Leo Michels

► Manual / Mechanical

Small populations of Annual bugloss are easily pulled or dug. Be sure to wear gloves when handling plants, as the bristly hairs can be painful and may cause skin irritation.

► Biological

There are currently no known biological control agents available for Annual Bugloss.

► **Chemical**

Spot spraying with an herbicide containing the active ingredient **glyphosate** (example: Roundup Pro®, Glyphos®, etc.) can be effective in controlling Annual Bugloss. Currently, products containing the active ingredient glyphosate are the only herbicides for the control of Annual Bugloss that are considered “low in hazard” by Thurston County’s pesticide review process for the potential for chemical mobility and persistence.

Thurston County has observed that most ready-to-use, pre-mixed products do not contain sufficient active ingredients to be as effective as concentrated products that are then mixed with water to create a specific finished concentration. The following instructions are for products containing 41% glyphosate which will be mixed down to a specified dilution rate. Be sure to read your label carefully, and make adjustments to rates accordingly.

Foliar applications of glyphosate (ROUNDUP PRO™):

- Using a spot application, spray each plant thoroughly on the stems and leaves, enough to be wet but not dripping. Spot application means the herbicide is applied only to the Annual Bugloss plants, and not on the surrounding plants or soil. A 2% glyphosate solution (after mixing for use) is necessary to control Annual Bugloss. Follow label directions for mixing product to application strength.
- Glyphosate is non-selective, and will injure any plants that it comes in contact with, including grass.
- Keep people and pets off treated areas until spray solution has dried.



Photo by Leo Michels

Herbicide & Method	Product Rates	Mix
RoundUp Pro® Spot/Foliar	2%	To 1 gallon of water add 2.66 oz. RoundUp Pro™, apply to foliage at or beyond bud stage.

Timing: Spot applications should be applied at bud stage, prior to blooming. Annual Bugloss blooms from June until a hard frost. For most effective treatments, apply before plants produce seed.

READ AND FOLLOW ALL LABEL DIRECTIONS AND RESTRICTIONS. Use of brand names does not imply endorsement and is for reference only; other formulations of the same herbicides may be available under other names. Information provided is current as of the date of the fact sheet. Pesticide product registration is renewed annually and product names and formulations may vary from year to year.



REFERENCES:

Written Findings of the Washington State Noxious Weed Control Board
 Pacific Northwest Extension Publication, PNW 415, June, 1992
 USDA Natural Resources Conservation Service Plant Profile: <http://plants.usda.gov/java/profile?symbol=ANAR16>



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