



Common Bugloss

(*Anchusa officinalis*)

Description:

Common bugloss (*Anchusa officinalis*) is a perennial plant, growing from one to two feet tall. The stems and leaves are fleshy, and the overall plant is coarsely hairy. The basal leaves are narrowly oblong, leaves along the plant stems are slightly pointed and progressively smaller up the stem. The blue to purple flowers have white centers, and are found in cymes, or helicoids clusters (curled like a scorpion), uncoiling and straightening out as the flowers open. Each flower produces a four chambered nutlet, each chamber containing one seed. The plants have stout, woody tap roots. Common bugloss plants form a basal rosette of leaves in its first year. A single flowering stalk is formed in the second year, and multiple stalks appear in subsequent years. A single plant can produce about 900 seeds a year.



Photo by Leo Michels

Impacts:

Common bugloss invades fields, pastures, and competes with more desirable vegetation such as native plants and crops. It causes spoilage in baled hay because the succulent leaves and stems become moldy. Common bugloss is in the borage family, of which many species contain pyrrolizidine alkaloids which are toxic to livestock and humans. Because the seeds of this plant can remain dormant for many years, it can become a 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 strategy of Thurston County's IPM policy is to minimize the use of pesticides.



Photo by Enrico Romani

► Cultural / Habitat

The most effective control of common 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.

► Manual / Mechanical

Large, woody tap roots make common bugloss very difficult to remove manually. Small infestations (6-10 plants, if not well established, or found in sandy, loose soil) can be grubbed out with a pick or mattock, removing as much root as possible. Be careful to collect and dispose of all the pieces of roots and crown to prevent them from re-establishing or spreading into other areas. Monitor the area carefully in subsequent seasons, as regrowth after manual attempts is likely

► Biological

There are currently no known biological control agents available for common bugloss.

Chemical

Spot spraying with an herbicide containing the active ingredient **glyphosate** (examples: Roundup Pro®, Eliminator Weed and Grass Killer®, Remuda® etc.) can be effective in controlling common bugloss. Currently, herbicides containing glyphosate are the only products for the control of common bugloss that are considered to be effective and also appropriate for homeowner use. Due to recent health reviews, Thurston County recognized some scientific studies have concluded the use of glyphosate products have carcinogenic potential. The risk of spot spraying with these products is considered to be low provided the applicator uses personal protection equipment which includes chemically resistant gloves in addition to long sleeve shirt, long pants, socks and shoes and all other label precautions are followed.



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. Similar products may be significantly different in strength. Be sure to read your label carefully, and make adjustments to rates accordingly.

Foliar applications of **glyphosate** (Roundup Pro®, Eliminator Weed and Grass Killer®, etc.):

- 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 target plants, and not on the surrounding plants or soil.
- A 2% glyphosate solution (after mixing for use) is necessary to control common 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.

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

Pollinator Protection: To minimize negative impacts to bees and other pollinators, treatment prior to blooming is recommended. Removal of flowers before treatment can be an option in some situations. If treatment must occur during the blooming period, try to spray early or late in the day or on cloudy, cool days when pollinators are least active.

Product/Method	Rates	Mix (1 oz = 2 Tablespoons)
Glyphosate Roundup Pro®, Eliminator Weed & Grass Killer®, Remuda® etc	2%	To 1 gallon of water add 2.66 oz. glyphosate concentrate. Apply to foliage at or beyond bud stage.

READ AND FOLLOW ALL LABEL DIRECTIONS AND RESTRICTIONS. Obey all label precautions including site specific and safety measures. Always use personal protective equipment that includes coveralls, chemical resistant gloves, shoes plus socks, and protective eyewear. Use of brand names does not connote 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. Product names and formulations may vary from year to year.

REFERENCES:

Washington State Weed Board's Written Findings, http://www.nwcb.wa.gov/siteFiles/Anchusa_officinalis.pdf

WSU/Cooperative Ext "Noxious Weed Facts"

Guide to Weeds in British Columbia

Safety Issues Affecting Herbs: *Pyrrolizidine Alkaloids*, by Subhuti Dharmananda, Ph.D., Director, Institute for Traditional Medicine, Portland, OR

Consumer Healthcare Products Association News Release, July 9, 2001



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