

Blueweed *(Echium vulgare)*

Description:

Blueweed (*Echium vulgare*) is a biennial or short-lived perennial growing from a long, woody taproot to over 36 inches tall. Leaves are lance shaped, alternating and becoming smaller and stalk-less moving up the stem. Each plant will produce from one to many flowering stalks. Both stems and leaves are covered with stiff, bristly hairs that have swollen, red, purple or black bases, giving the stems a spotted appearance. The stems terminate in cymes, or helicoids clusters (curled like a scorpion), uncoiling and straightening out as the flowers open. There can be as many as 50 cymes per stem, and each cyme bears up to 20 flowers. The showy, funnel-shaped flowers are typically bright blue, but may also be purple, pink, or rarely white. Plants bloom from June through August, seeds maturing about a month after bloom. Each plant may produce up to 2,800 seeds that can remain viable for several years.



Photo by Vito Buono-Bari

Impacts:

Blueweed reduces forage production and wildlife habitat. It causes spoilage in baled hay because the succulent leaves and stems become moldy. Blueweed contains pyrrolizidine alkaloids which are toxic to livestock and humans. The alkaloids accumulate in the liver when ingested where they can cause liver disease. Skin contact with the hairs also causes dermatitis resulting in inflammation and itching in humans.

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 Leo Michels

► Cultural / Habitat

The most effective control of blueweed is prevention. Above all, prevent plants from going to seed. Blueweed has been grown as an ornamental garden plant in the past and is still sometimes found 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

Small, isolated infestations (for example, 12 plants or fewer) can be dug out if the soil is moist and plants are not well established. Large, woody tap roots make Blueweed difficult to remove manually. Be careful to collect and dispose of all the pieces of roots and crown to prevent them from re-establishing.

► Biological

There are currently no known biological control agents available for blueweed.

► **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 Blueweed. Currently, herbicides containing glyphosate are the only products for the control of blueweed 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.

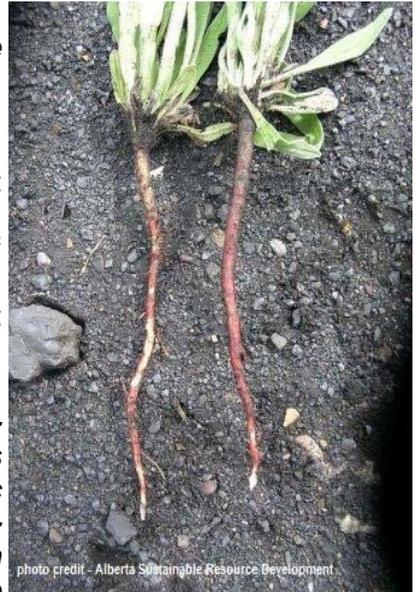


photo credit - Alberta Sustainable Resource Development

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 blueweed. 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. Blueweed blooms from June until September. 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	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:

- Dept. of Primary Industries, Water and Environment, Quarantine, Pests & Diseases Agdex 647, Revised Nov. 2002
- British of Columbia's Ministry Of Agriculture, Agdex 640
- Taylor's Northwest Weeds
- USDA Natural Resources Conservation Service Invasive Species Technical Note No. MT-26, October, 2009
- Guide to Weeds in British Columbia

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