



## BLUEWEED (*Echium vulgare*)

Family: Boraginaceae (Borage)

Life Cycle: Biennial

Class: B - Control Required

AKA: Viper's bugloss

BLUEWEED
<ul style="list-style-type: none"> <li>• Ornamental plant that escaped cultivation</li> <li>• Bristles grow from swollen base on stem, giving stems spotted appearance</li> <li>• Bumpy white spots on hairy leaves</li> <li>• Native to Asia and Europe</li> </ul>

DESCRIPTION
<p><b>Growth Traits:</b> Biennial to short-lived perennial. Begins as a basal rosette, growing up to three feet tall and flowering in its second year. Multiple upright flowering stalks rise from one rosette.</p> <p><b>Leaves and Stems:</b> Leaves are lance-shaped and covered with stiff hairs. Basal leaves have small white bumps. Leaves may be eight inches long in rosette, growing progressively smaller up the stem. Stem leaves alternate. Stems are covered in stiff bristly hairs that have swollen red, purple, or black bases, giving stem spotted appearance.</p> <p><b>Flowers:</b> Blooms June - August. Flowers typically bright blue but may be pink to purple. Flowers grow on coiled stems that unfurl and extend as each flower blooms. Petals are fused at base.</p> <p><b>Roots and Reproduction:</b> Deep taproot. Reproduces by seed. Each flower can produce four rough, hard nutlets, which each contain a seed. A plant may produce 500 to 2,000 seeds, which can remain viable in the soil for three years.</p> <p><b>Habitat:</b> Grows in poor, porous soils. Readily invades disturbed sites: trails, roadsides, rangeland, gardens and pastures. Does not tolerate shade.</p> <p><b>Toxicity:</b> Toxicity unknown. However, it is in the Borage family and other borage species are known to contain pyrrolizidine alkaloids which can be toxic to humans and livestock. Stiff bristles on stems can be a skin irritant; wear long sleeves and gloves if handling.</p>

CONTROL METHODS
<p><b>Mechanical:</b> Hand pulling or digging can be effective for small infestations, if repeated through growing season. Protect exposed skin from bristles with long sleeves and gloves. Mowing just before flowering can reduce seed production. Mow again when new flower stalks appear later in the season. Cultivation can be effective if repeated several times through the growing season.</p> <p><b>Cultural:</b> Clean equipment, clothing and animals if visiting an area with known infestations. Support desirable plant communities and minimize soil disturbance to reduce likelihood of invasion. Reseed disturbed areas.</p> <p><b>Biological:</b> There are currently no biological agents approved for release in Washington State.</p> <p><b>Chemical*:</b> Most effective in rosette stage. Use surfactant. See table below for recommendations.</p>

**\*ALWAYS read herbicide labels and follow instructions for use and PPE.** The use of a surfactant (aka sticker) increases the efficacy of herbicide application, saving you time and money. If treating over multiple seasons, rotate using herbicides with different modes of action to reduce likelihood of herbicide resistance developing. Below are recommended herbicides based on stage of growth and time of year. All recommendations are supplied with the understanding that no discrimination is intended and no endorsement by the Noxious Weed Board is implied. Trade names are used to simplify recommendations.

**NOTE:** There is no 'magic bullet' in noxious weed control, and control efforts must be repeated every season to stop their spread. Using a combination of methods (e.g. cultural and chemical) will lead to better control over time.

April - May Rosette, Seedling Stage	June - July Bolting, Bud, Bloom Stage	August - October Seeding, Fall Regrowth Stage
WeedMaster	WeedMaster	Tordon + 2,4-D
Prescott	Prescott	WeedMaster (Regrowth/rosette)
Telar	Tordon + 2,4-D	Telar (Regrowth/rosette)
PasturePro	PasturePro	