



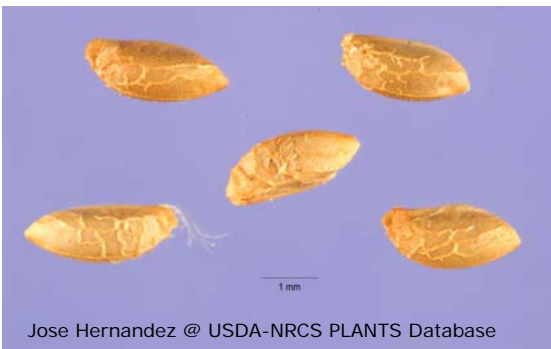
## INTEGRATED PEST MANAGEMENT PRESCRIPTION

# Herb Robert *(Geranium robertianum)*

### Description:

*Geranium robertianum*, most commonly called “Herb Robert” in the Pacific Northwest, is an annual (sometimes biennial) plant that grows from 8 to 24 inches tall. Seeds that germinate in the fall over-winter as rosettes and bloom early the next spring. Plants that germinate in the spring will bloom and produce seed later in the summer and fall.

Herb Robert leaves are finely divided and sparsely covered with soft hairs, they are light green in color, but in direct sunlight the leaves may be bright red. The branched, reddish stems are wiry and covered with white, sticky, glandular hairs. It is these glandular hairs that give rise to the plant’s disagreeable odor and sticky, oily feel. The odor has been compared to that of burning tires. The half-inch flowers range in color from white to magenta (bright pink is the most common) and are present from May through October. Flowers are typically born in pairs at the ends of stalks and produce a long, beaked capsule that produces 5 seeds. The seeds can be ejected from the capsule up to 20 feet and have long, sticky threads that adhere to leaves, animal fur, clothing, and equipment.



Jose Hernandez @ USDA-NRCS PLANTS Database

### Impacts:

Besides being a prolific invader in shady gardens, Herb Robert often invades forests, quickly out-competing and displacing native vegetation in the forest understory. In one study in Western Washington, it was found that in dense forest canopy cover, it was possible to find up to 250 plants per square meter, occupying up to 90 percent of the forest floor. Also, while reproduction is fairly low in dense shade, up to 3,100 seeds per square meter can be produced in 50 to 60 percent canopy cover in one growing season. Because Herb Robert is highly adaptable and can grow in almost any soil and exposure, there are very few barriers to limit its spread.

**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

Don’t introduce Herb Robert to your garden intentionally. Check nursery stock for seedlings, and don’t bring plants home from infested wooded areas. Also, wash down boots and shoes, tools, vehicles and pets after visiting parks, forests or other areas where there are populations of Herb Robert. Keep plants out of compost piles, including plants that have been weeded out, as there may be seed in the soil, or stuck to the plants.

Successful plans for controlling Herb Robert must include monitoring and follow-up control efforts throughout the spring, summer and fall. Seeds can remain viable for 3 to 5 years, so monitoring and follow-up treatments must be repeated in subsequent years until the seed bank is exhausted. Because Herb Robert can propel seed up to 20 feet, it’s important to prevent plants in outlying areas from casting seed into control areas. If it’s not possible to kill or remove all the plants in adjacent areas, try to keep them mowed until more thorough treatments can be extended into those areas.

#### ► Biological

There are currently no known biological control agents available for Herb Robert.



► **Manual / Mechanical**

Because of the pervasive odor, manual or mechanical control can be a very unpleasant task. However, manual control is very effective and is often the best choice for controlling Herb Robert. The plants are relatively easy to dig out when the soil is not hard and compacted. The root tops tend to be brittle and break off, allowing plants to re-grow from the root crowns, so make sure they are removed. Mowing, cutting, or weed eating will not kill plants but can be used to help prevent plants from producing seed until you can dig out the roots. Cutting must be done frequently, as plants will produce flowers from early spring until late fall. Since these plants produce many seeds, you must watch the area after plants are removed to control emerging seedlings.



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► **Chemical**

Because Herb Robert is a low-growing plant that is often growing among desirable vegetation, applications of herbicide should be used only where there are large numbers of plants, or in soil conditions that make manual control difficult. Spot spraying herbicide containing the active ingredient **glyphosate** (example: Roundup Pro®, Glyphos®, etc.) is effective in controlling Herb Robert. A spot treatment is when you spray each plant enough so that they are wet, but not dripping, and not onto the surrounding soil or other vegetation. Glyphosate is non-selective and will injure or kill any plants that it comes in contact with, including grass.

Many glyphosate products have an initial glyphosate concentration of 41% and are recommended for diluting to exact percentage solutions. Herbicides labeled for spot treatment generally recommend mixing the product with water to create a specified percentage solution. For example, the Roundup Pro® label recommends a 0.5–2% solution for hand-held or spot applications for control of annual weeds, the application rate depending on size, species and conditions. Because Herb Robert is usually found at several plant stages in one location, the higher concentration solution (2%) is the most effective. Spraying with a lower percentage solution may not kill the plants, which can contribute to herbicide resistance.

<b>To 1 gallon of water add:</b>	<b>2.66 oz. Roundup Pro®</b> containing 41% glyphosate <b>(for a 2% product spray solution)</b>
<b>1 fluid ounce = 2 Tablespoon</b>	

**Timing:** Spot applications can be made any time that plants are actively growing, from early spring to late fall. Best to treat before seed capsules mature and 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 [http://www.nwcb.wa.gov/weed\\_info/Geranium\\_robertianum.html](http://www.nwcb.wa.gov/weed_info/Geranium_robertianum.html)
- Sound Native Plants, Weed Control—Herb Robert <http://www.soundnativeplants.com/PDF/Herb%20Robert.pdf>
- Plants of the Pacific Northwest Coast—Pojar & Mackinnon—© 1994 by the BC Ministry of Forests and Lone Pine Publishing, pg 316
- Western Invasives Network, Herb Robert (*Geranium robertianum*) fact sheet: [http://www.westerninvasivesnetwork.org/pdfs/factsheets/HerbRobert\\_PIP.pdf](http://www.westerninvasivesnetwork.org/pdfs/factsheets/HerbRobert_PIP.pdf)



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