THURSTON COUNTY NOXIOUS WEED FACT SHEET

Shiny Geranium

(Geranium lucidum)

Description: Shiny geranium grows predominantly as an annual weed in the Pacific Northwest where it tolerates either sun or shade and grows up to 10 to 12 inches high, though it may become biennial depending on moisture conditions. The stems are usually tinged bright red. Round leaves are deeply lobed, averaging 1½ inches across, very waxy and shiny, bright green, turning vivid red in summer and fall. Five petaled pink flowers are found growing in pairs at the ends of stalks at the same height or in amongst the leaves. Seed-lings sprout with the advent of the first substantial fall rains. The plants continue to grow through fall and winter, forming large patches that begin to bloom in April and May.

Impacts: Shiny geranium establishes quickly, utilizing the abundance of early spring moisture, then dominates the site by pushing out many other early season wildflowers and



seedlings of perennial plants. As soils dry, few other plants are able to establish through the mats of receding biomass. When seed capsules are dry, they can burst open, forcefully ejecting seeds in all directions, including upwind or steep terrain, allowing infestations to penetrate otherwise undisturbed natural areas. It is also believed that this species is capable of producing multiple generations per year when moisture conditions are favorable.

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.

Cultural / Habitat

Don't bring plants home from infested wooded areas, as there may be dormant seeds in any soil around the roots. Wash down boots and shoes, tools, vehicles and pets after visiting parks, forests or other are-



as where there are populations of shiny geranium. 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. Heavy layers of mulch may be some help in preventing plants from germinating. Successful plans for controlling shiny geranium must include monitoring and follow-up control efforts throughout the spring, summer and fall. Monitoring and follow-up treatments must be repeated in subsequent years until the seed bank is exhausted.

Manual / Mechanical

Small populations or isolated plants (patches 1-2 feet in diameter or less) can be hand-weeded if the soil is loose and allows roots to be removed easily. Individual plants are easy to pull, but usually come in numbers that are difficult to manage. Hoeing or cultivating will also work if plants are raked up and removed after loosening. Disturbing the soil through manual or mechanical control may cause a flush of seedlings to emerge, exacerbating the problem, especially in larger infestations. Mulching after manual control may help reduce the amount of new growth.

Biological

There are currently no biological control methods available for controlling shiny geranium.

Thurston County Noxious Weed Control

Chemical

Spot spraying with *triclopyr* (example: Ortho Weed B Gon "Chickweed, Clover and Oxalis Killer") is effective in controlling shiny geranium. Triclopyr is a selective herbicide that will not kill grass when used according to label instructions, but may damage or kill other broadleaf plants. Triclopyr products are rated as "moderate in hazard" by Thurston County's pesticide review process because broadcast applications of triclopyr at greater than 2 lbs of active ingredient per acre can result in contaminating the food supply for birds and small animals. Since this prescription recommends only spraying individual plants or small patches, the risk to birds and small animals is greatly reduced.

Imazapyr (example: Polaris[®]) is also effective in controlling infestations of shiny geranium. Imazapyr is a non-selective herbicide and may damage or kill any other plants that it contacts, including grass. It may also leave persistent bare ground in the treatment area. This can be minimized by using only as directed, spraying at the recommended strength and no more than necessary to wet the surface of the leaves and stems. Products containing the active ingredient imazapyr are considered "moderate in hazard" by Thurston County's pesticide review process for the potential for chemical mobility and persistence.

For selective control of shiny geranium in agricultural settings (pastures, hayfields, etc.): an herbicide containing the active ingredient *aminopyralid* (example: MilestoneTM, Milestone VMTM, etc.) may be a preferred choice. Aminopyralid products will not harm grass and can be used around livestock (provided all label precautions are followed). *Do not use plant material or hay from treated areas for mulch. Likewise, do not use manure from animals that have grazed or eaten hay from treated areas.*

Aminopyralid is currently sold in farm supply stores as an agricultural herbicide that is only to be used in areas listed on the label and *may not be used in urban lawns or landscapes.* Aminopyralid products are considered "moderate in haz-ard" by Thurston County's review process for the potential for chemical mobility and persistence.

Foliar applications:

- Using a spot application, spray plants thoroughly on the stems and leaves, enough to be wet but not to the point of dripping. Spot application means the herbicide is applied only to the shiny geranium plants, and not on the surrounding plants or soil.
- Add methylated seed oil or a non-ionic surfactant to the tank mix to allow the herbicide to penetrate the waxy coating on the leaves and stems.
- Keep people and pets off treated areas until spray solution has dried.

Timing: Apply in early spring when plants are actively growing but before blooming and thereafter as needed—monitor infestation areas closely as shiny geranium can produce multiple crops in a single year.

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	Product Rates	Mix
Triclopyr Ortho® Weed B Gon "Chickweed, Clover & Oxalis Killer"	5 oz. (10 Tablespoons) per 1000 ft²	To determine the amount of mix needed, first measure the area to be treated, then measure the amount of plain water needed to spray the area using a backpack or tank sprayer. Add 1/2 ounce (one Tablespoon) of product to enough water for each 100 sq. feet of area that needs to be treated. Be sure to allow the area to dry thoroughly before treatment. Spray plants until they are wet but not dripping.
Aminopyralid Milestone ®	1 tsp per 1000 ft²	To treat a 1,000 sq. ft. area: Using a 2 to 4 gallon backpack or tank sprayer, add half of the water needed to cover all plants with one teaspoon Milestone [™] , agitate, then add water to reach desired amount (0.5 - 2.5 gal- lons total volume, depending on quantity and size of plants). Lightly spray all shiny geranium plants in 1,000 sq. ft. area, then continue lightly spraying the shiny geranium until the tank is empty and all plants have been thoroughly covered. The addition of a non-ionic surfactant (at least 80% active ingredient) is recommended to enhance herbicide activity.
lmazapyr : Polaris [®]	1%	Add 1.3 oz (2.6 Tablespoons) concentrated product per gallon of water. Add 1.28 oz. methylat- ed seed oil (3 Tablespoons) to the tank mix to allow the herbicide to penetrate the waxy coating on the leaves and stems. Spray plants until wet but not dripping.

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:

Written Findings of the Washington State Noxious Weed Control Board; Oregon Department of Agriculture Plant Division Noxious Weed Control: <u>http://www.oregon.gov/ODA/PLANT/WEEDS/profile_shinygeranium.shtml</u>

USDA APHIS, Weed Risk Assessment for *Geranium lucidum L.* Revised February, 2017 (Geraniaceae) - Shining cranesbill. June 11,



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