

Other Control Methods

Chemical methods should only be utilized if you feel that your infestation of lesser celandine is too large or difficult to remove by hand and/or if soil disturbance is undesirable and spread is likely through manual methods.

In order to have the greatest negative impact to celandine and the least impact to desirable native wildflower species, herbicide should be applied in LATE WINTER-EARLY SPRING, generally February through March.

Start applications PRIOR TO FLOWERING and up until about 50 percent of the plants are in flower, around April 1, then stop. After that, control success declines and many more native wildflowers have emerged that could be killed by pesticides.

Apply a FOLIAR SPRAY of a glyphosate-based herbicide within this time window. In a riparian or wetland area only use aquatically labeled products - a 1.5% glyphosate isopropylamine salt solution product - mixed with water and a non-ionic surfactant to foliage.

A Word of Caution

For any herbicide applications we urge you to work with a licensed herbicide applicator and refer to Metro's Grow Smart Grow Safe guide (www.lhwmp.org/home/gsgs), or contact your county noxious weed coordinator. Always read and follow the label on any chemical product you are using!



The mission of the 4-County Cooperative Weed Management Area, comprising Clackamas, Clark, Multnomah, and Washington Counties, is to create and support collaborative weed management in the greater Portland area. For more details on our collaborative efforts in management, mapping, and outreach, please visit our website:

www.4countycwma.org



LESSER CELANDINE

(*Ranunculus ficaria* L.)

4-County Class B
OR Class B
WA Monitor Species



Photo: Bart Busschots

Overview

Lesser celandine is an herbaceous perennial plant. This plant was originally cultivated as an ornamental due to its attractive yellow flowers and ability to quickly create a uniform groundcover. Lesser celandine grows vigorously and forms large, dense patches, displacing and preventing native plants from growing. Lesser celandine will out-compete the native spring-flowering plant community and negatively impact the various wild-life species associated with them. This invader emerges well in advance of many native species and spreads rapidly via underground tubers and bulblets.

The prolific tubers may be unearthed and scattered by the digging activities of some animals, including humans, and spread to new sites. It grows in full shade to full sun and prefers moist to wet soils but can persist in a wide range of soil conditions.

How to Identify

Lesser celandine plants consist of basal rosettes of tender, succulent, dark green, shiny kidney- to heart-shaped leaves. Flowers are symmetrical, bright yellow with a slightly darker center found singly on delicate stalks that rise above the leaves. The number of petals on each flower varies greatly across the species, ranging from 6 to 26 with double bloom varieties displaying up to 60 petals. Three (rarely 4) green sepals are present and are a good distinguishing factor when examining lookalikes.

Lookalikes

Lesser celandine closely resembles marsh marigold (*Caltha palustris*). Marsh marigold is a native wetland plant that occurs outside the CWMA area, so it is highly unlikely that you will find any native marsh marigold; however another marigold lookalike, *Caltha leptosepala*, with white flowers, is more likely. If the plants are forming a dense continuous mat, then you have found the invasive lesser celandine.

Prevention

This plant was formerly sold as an ornamental and is still found in many gardens and traded at plant swaps. Early identification and timely removal of lesser celandine prior to it creating a dense patch is crucial to preventing its spread. Care should be taken not to move and reuse soil contaminated with this plants tubers and bulblets as that will result in new infestations. *Contaminated soil and plant parts should all be disposed of in the landfill* to ensure that this invasive is not cycling through the yard debris and compost system. After working in a contaminated area tools and footwear should be checked and cleaned of plant materials to prevent further spread. Lesser celandine is extremely hard to control once established.

When to Remove

Due to its short life cycle, the window of opportunity for controlling lesser celandine is very short. Lesser celandine flowers in late winter and early spring, and the growing season occurs from November to July. It is best to manually remove or chemically treat plants when the ground is saturated right before or during its early flowering period (late winter/early spring).



Photo: Adam Clark



Photo: Andrew Wilkinson



Photo: Dave Smith

Basic Manual Control Methods

THIS METHOD SHOULD BE USED WHEN:

- There may be desired plants
- Terrain is flat or gently sloped
- There are desired plants in or around invasion

TOOLS TO CHOOSE FROM:

- Gloves
- Garden trowel
- Soil sifter
- Bag for plant parts

When soil is moist, carefully DIG UP plants and SIFT soil to remove the tubers/bulblets. This method is extremely labor intensive and will not be feasible at most sites. Because of the massive soil disturbance this method causes and the likelihood of exacerbating its spread, manual control (if not done carefully enough) is generally not recommended unless dealing with an extremely small population (i.e. a few plants).

If PLANT PARTS (especially tubers/bulblets) are present, remove them from the site. Place plant parts in a bag labeled "INVASIVE PLANTS - DO NOT COMPOST". If soil or compost comes in contact with plants, be sure to monitor soil or compost for sprouting. Dispose of these materials in the trash. NEVER dump clippings in parks or natural areas.

PLANT native plants in the area which is being controlled after the bulk of the invasive plants are removed. This will help to prevent new and recurring invasions.

MONITOR infested site regularly to check for new growth. Because tubers and bulblets left in soil will resprout, sites should be checked every few weeks and new growth should be dug out. Once the majority of plants have been removed, the site should only need yearly monitoring.