

Orange Hawkweed

(*Hieracium aurantiacum*)

Description: Orange hawkweed is a perennial plant with matted, hairy leaves and showy flower heads. The flowers are bright orange-red, about an inch in diameter, born in tight clusters of 5 to 35 flowers at the top of wiry stalks from June to August. The flower stalks grow from a few inches to 2 feet in height, are nearly leafless, occasionally with 1 or 2 small clasping leaves, and are covered with distinctive, stiff black hairs. Plants spread by seeds, rhizomes (underground stems) or numerous hairy, leafy stolons (above ground runners).

Impacts: Orange hawkweed reproduces and spreads through prolific seed production as well as vegetatively through stolons and rhizomes. Under ideal conditions, one plant can spread and infest an area 2-3 feet in diameter in its first year of growth. It forms extensive mats, displacing native species and lowering bio-diversity. It is an aggressive competitor for space, light and soil nutrients. Hawkweeds are able to produce seed either with or without pollination, and their own pollen is allelopathic, which can cause other plants to be infertile, giving them an even greater advantage.



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

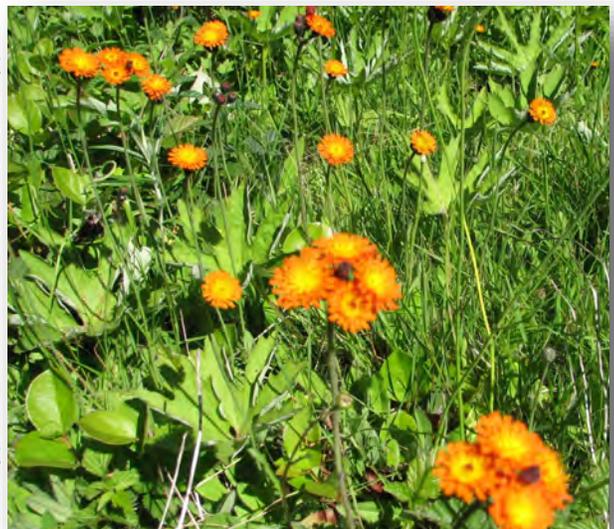
The most effective control of orange hawkweed is prevention. Originally a garden ornamental, it continues to be reintroduced as a component in wildflower seed mixtures or when propagated by the unwary wildflower enthusiast. Review the ingredients of wildflower mixes to avoid accidental introduction, 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

Where populations of orange hawkweed are found mixed with grasses and other vegetation, manual control is very difficult because plants are hard to find until they become solid masses. Careful digging and bagging can be effective if there are only a few plants—10 to 12 if difficult to find, more if the surrounding vegetation is short and sparse or where small, isolated patches (a foot or less in diameter) are located in bare areas on loose, gravelly soils. Be sure to monitor sites for several seasons.

► Biological

There are currently no known biocontrol agents for use on hawkweeds in the United States. Since there are many native, non-invasive hawkweed species as well, it seems unlikely that insects or pathogens will be discovered that would be effective on noxious strains without causing damage to native varieties.



► **Chemical**

Spot spraying with **triclopyr** (example: Ortho Weed B Gon “Chickweed, Clover and Oxalis Killer”) is effective in controlling orange hawkweed. 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.

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 8% triclopyr (be sure the product you choose lists triclopyr as the only active ingredient) which will be mixed down to a specified dilution rate. Be sure to read your label carefully, and make adjustments to rates accordingly.



Foliar applications of triclopyr:

- Spot application means the herbicide is applied only to the plants and not on the surrounding plants or soil. Spray each plant thoroughly on the stems and leaves enough to be wet but not dripping.
- Triclopyr is a selective, broadleaf weed killer and can injure any plants that it comes in contact with, except for grass. Care should be used to avoid contact with ornamentals and other desirable plants.
- Keep people and pets off treated areas until spray solution has dried.

For selective control of hawkweed in agricultural settings (pastures, hayfields, etc.): an herbicide containing the active ingredient **aminopyralid** (example: Milestone™, Milestone VM™, 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 hazard” by Thurston County’s review process for the potential for chemical mobility and persistence.

Timing: Apply either triclopyr or aminopyralid in the spring when plants are actively growing and in the pre-bud to early bud growth stage—the goal is to insure all plants have emerged, but are treated before they reproduce.

Pollinator Protection: To minimize negative impacts to bees and other pollinators, treatment prior to blooming is recommended. 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. Removal of flowers before treatment can be an option in some situations.

Product/Method	Rates	Mix
Triclopyr Ortho® Weed B Gon “Chickweed, Clover & Oxalis Killer”	5 oz. (10 Table- spoons) per 1000 ft ²	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. Allow sufficient time for the area to dry completely before treatment. Then add 1/2 ounce (one Table-spoon) of product to enough water for each 100 sq. feet of area that needs to be treated. Spray plants until they are wet but not dripping.
Aminopyralid Milestone® Spot/Foliar	1 tsp per 1000 ft ²	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 gallons total volume, depending on quantity and size of plants). Lightly spray all hawkweed plants in 1,000 sq. ft. area, then continue lightly spraying the hawkweed 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.

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:

Pacific Northwest Extension Bulletin #499, Hawkweeds, September, 1997

USDA Forest Service Weed of the Week, http://www.na.fs.fed.us/fhp/invasive_plants/weeds/orange-hawkweed%20.pdf

University of Idaho “Hawkweed News”, Volume 1, Issue 1, March 1995

The Role of Pollen Allelopathy in Weed Ecology, Stephen D. Murphy, Weed Technology, 2001, Volume 15:867-872



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