

Mouseear Hawkweed *(Hieracium pilosella)*

Description: Mouseear hawkweed is a low, creeping, mat-forming perennial plant. It spreads primarily by stolons (horizontal creeping stems that root at the nodes or tip, creating new plants) though it produces and spreads by windborne seed as well. Mouseear hawkweed forms basal rosettes with hairy leaves. The upper surface of the leaves are smooth and green, with long, distinctive hairs, while the lower surface is whitish and woolly with dense hairs. Plants contain a milky juice. Bright, lemon yellow flowers about an inch across, often with red streaks on the back side of the petals are born singly on wiry stems from 4 to 12 inches long. Seeds are purplish-black, connected to whitish bristles (pappus) which acts as a parachute to aid in wind dispersal. Thrives on very poor and dry grounds.



Impacts: Mouseear hawkweed is an aggressive competitor of pasture and range plant species. It displaces native species by forming a dense carpet of rosettes to the exclusion of other plants. It can spread rapidly and widely, increasing to approximately 80% of ground cover. A threatened plant species located on the Rocky Prairie Preserve in Thurston County is affected by the aggressiveness of mouseear hawkweed.



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**

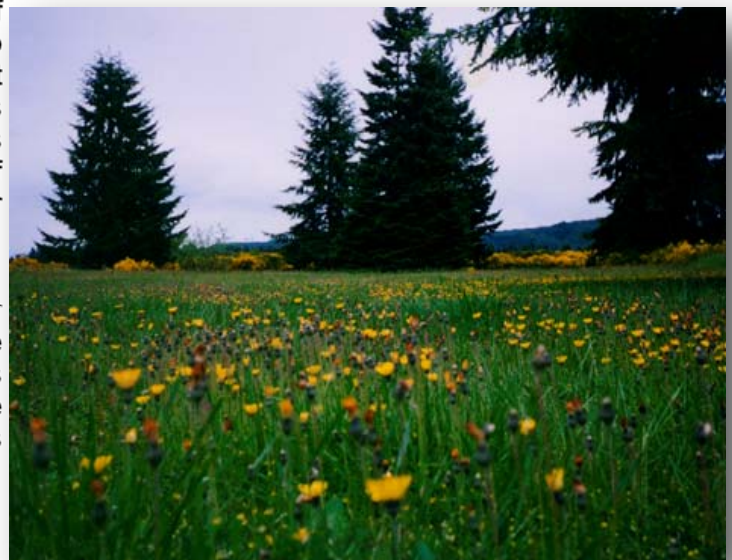
Prevent new infestations by maintaining good ground cover with competing species such as perennial grasses and clover. Increasing fertility along with ground cover maintenance will aid in control of existing infestations. Avoid overgrazing where livestock is present.

► **Manual / Mechanical**

Where populations of mouseear hawkweed were found mixed with grasses and other vegetation, evaluations of manual control over three seasons showed a zero percent effectiveness rate. All sites still had significant infestations. Where small, isolated patches of plants (a foot or less in diameter) are located in bare areas on loose, gravelly soils, careful digging and bagging of plants can be effective. 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 as well.



► **Chemical**

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

READ AND FOLLOW ALL LABEL DIRECTIONS AND RESTRICTIONS. Obey all label precautions including site

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.

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
- The Nature Conservancy Element Stewardship Abstract for *Hieracium pilosella*
- University of Idaho “Hawkweed News”, Volume 4, June 1999
- Written Findings of the Washington State Noxious Weed Control Board



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