

Yellowdevil Hawkweed *(Hieracium floribundum)*

Description: Yellowdevil hawkweed is a perennial plant with many slender and leafy stolons (horizontal stems) at the base of the plant, and a long rhizome (underground stem). This hawkweed has a well developed cluster of basal leaves at the time of flowering in the mid to late spring. The basal leaves are covered with a whitish or bluish waxy coating, and are as large as or larger than any of the upper leaves. The top of the leaf is smooth whereas the underside of the leaf has scattered, bristly hairs, particularly along the mid-rib. The leaf margins toward the base are also covered with long bristles. The leaves along the stolons are more hairy than the basal leaves. The single flowering stem is 8 - 32 inches tall, sparsely scattered with long bristles that are blackish and tipped with star-like



Impacts: The combination of reproduction from stolons, rhizomes, root fragments and seed makes Yellowdevil hawkweed extremely invasive and hard to manage. Hawkweeds are able to produce seed either with or without pollination, and their own pollen is allelopathic, which can cause seeds of other plants to be infertile, giving them an even greater advantage. In Thurston County, Yellowdevil hawkweed has a very limited distribution, but despite efforts to contain and eradicate infestations, it has proven to be very persistent.

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

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. Hay cut from infested fields should not be moved to uninfested areas. Never put hawkweed in compost.



► Manual / Mechanical

For isolated plants or small patches, manual removal can help control hawkweeds, especially if used to prevent seed production by removing plants that are budded or in bloom. However, Yellowdevil hawkweed is capable of reproducing from small root fragments, so often, a flush of tiny plants will appear at the perimeter of areas where plants have been dug. Be very careful to double bag removed plants and deposit in garbage, not compost.

► 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 **glyphosate** (example: Roundup Pro®, Glyphos®, etc.) is effective in controlling Yellowdevil hawkweed. Glyphosate products can be used to treat individual plants or small patches. Currently, products containing the active ingredient glyphosate are the only herbicides for the control of Yellowdevil hawkweed considered “low in hazard” by Thurston County’s pesticide review process for the potential for chemical mobility and persistence.



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 41% glyphosate 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 glyphosate (ROUNDUP PRO™):

- Spot applications with glyphosate products are effective. 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.
- Glyphosate is non-selective, and will injure any plants that it comes in contact with, including grass.
- 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 agricultural labeled herbicides that are only to be used in areas listed on the label, and are available in farm supply stores. Aminopyralid products are considered moderate in hazard by Thurston County’s review process for the potential for chemical mobility and persistence.

Herbicide & Method	Product Rates	Mix
RoundUp Pro® Spot/Foliar	2%	To 1 gallon of water add 2.66 oz. RoundUp Pro®
Milestone ® Spot/Foliar	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 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.

Timing: Apply either glyphosate or aminopyralid in the spring to plants in the pre-bud to early bud growth stage—the goal is to insure all plants have emerged. Applications of aminopyralid are also effective in the fall before a killing frost.

READ AND FOLLOW ALL LABEL DIRECTIONS AND RESTRICTIONS. Obey all label precautions and safety measures. Always use personal protective equipment that includes coveralls, waterproof 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 and product names and formulations may vary from year to year.

REFERENCES:

- Pacific Northwest Extension Bulletin #499, Hawkweeds, September, 1997
- The Role of Pollen Allelopathy in Weed Ecology, Stephen D. Murphy, Weed Technology, 2001, Volume 15:867-872
- University of Idaho “Hawkweed News”, Volume 3, Issue 1, March 1997
- Written Findings of the Washington State Noxious Weed Control Board, November, 1997



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