



Orange Hawkweed

Hieracium aurantiacum

Alberta Regulation:
Weed Act



Overview:

Orange hawkweed is a member of the Aster Family native to Europe. It is a fibrous rooted, perennial herb with a milky latex in the stems and leaves. Hawkweeds reproduce by seeds and vegetatively by numerous horizontal stolons, and rhizomes underground.² Seeds are produced by apomixis - asexually - as non-native hawkweeds are polyploids (n=9), as opposed to the native diploid hawkweeds.¹ Occasional sexual reproduction occurs.¹

Hawkweeds develop a low rosette of basal leaves before producing a flowering stem. Dandelion-like flowers are borne at the ends of stems. Orange hawkweed is unique among both native and introduced hawkweeds in that flowers are a fiery orange colour. All other hawkweed are yellow flowered and there is one white flowered species.

Non-native hawkweeds exhibit many characteristics of an invasive plant: high seed production and germination rates, asexual seed production, wind-dispersed seed, vegetative reproduction via rhizomes, stolons, and root fragments, and rapid growth.¹ A

few invasive hawkweed species are popular ornamentals. All of these characteristics facilitate rapid colonization and monopolizing of resources. An undetected patch of hawkweed has great potential to become an un-eradicable infestation.

Habitat:

Hawkweeds prefer well drained, coarse textured soils, moderately low in organic matter, in mesic habitats.¹ It can successfully grow under coniferous forest canopy.

Identification:

Stems: Are erect, usually solitary, and leafless or with leaves or with just 1 or 2 greatly reduced leaves.² Stems bear numerous stellate, glandular, and simple hairs. Plants grow 10-60 cm.¹ Stolons are present and hairy.²

Leaves: Basal leaves are oblong/lance-shaped to elliptic, and narrow to a petiole, and 4-20 cm long 1-3.5 cm wide. The upper leaf surfaces bear numerous simple hairs and the lower surfaces bear both simple and

stellate hairs. Leaf margins may be entire or slightly toothed.²

Flowers: Red-orange ray flowers are borne in open, rounded clusters of 20-50.¹ Involucral bracts are lance-shaped, 5-8 mm tall², with numerous stellate, blackish glandular, and simple hairs.¹ Achenes are narrowed at the base, 1.5-2 mm long, with a brownish pappus.²

Prevention:

Learning to recognize hawkweeds from the many yellow-flowered members of the Aster Family is key to prevention. Hairs are an important characteristic of non-native hawkweeds and also in distinguishing between species. Stolons facilitate rapid colonization of a patch of ground. Long term management of hawkweeds requires maintaining healthy forbs and grasses - fertilization of desirable vegetation can result in out-competition of hawkweeds. Re-seed disturbance in areas susceptible to hawkweed invasion.

Control:

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Orange Hawkweed (Continued)

Grazing: Unknown. Invasive plants should never be considered as forage.

Mechanical: Mowing before flowering will prevent seed production of taller plants but will not inhibit reproduction via stolons and rhizomes. Hand digging of small infestations where all stolons and root can be removed may be effective. Root fragments can generate new plants, therefore any mechanical tilling/cultivation would be ineffective.

Chemical: Hexazinone, 2,4-D, and glyphosate are registered for use on *Hieracium* spp./hawkweeds. Always check product labels to ensure the herbicide is registered for use on the target plant in Canada by the Pesticide Management Regulatory Agency. Consult your local Agricultural Fieldman or Certified Pesticide Dispenser for more information.

Biological: The stolon-tip gall wasp *Aulacidea subterminalis* was first released in BC in 2011. Results are pending.³



Leaf & Stem



Leaves



Seeds

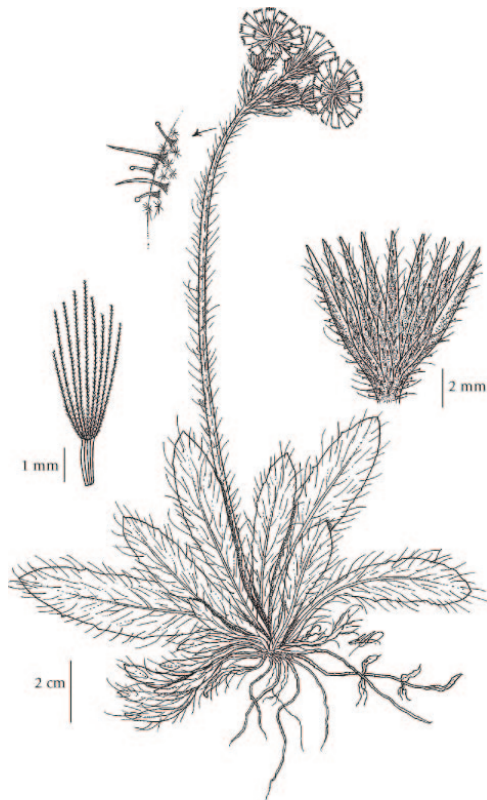
Alberta Sustainable Resource Development



Seed head



Seeds



Stem

C Roche

REFERENCES

- 1 Wilson, Linda. Key to Identification of Invasive and Native Hawkweeds in the Pacific Northwest. British Columbia Ministry of Forests and Range, Forest Practices Branch, Invasive Alien Plant Program.
- 2 *Hieracium aurantiacum*. Electronic Atlas of the Flora of British Columbia. <http://ibis.geog.ubc.ca/biodiversity/eflora/> Accessed October 26, 2014.
- 3 Target Invasive Plants and Biocontrol Agents Undergoing Screening. BC Ministry of Forests, Lands and Natural Resource Operations. <http://www.for.gov.bc.ca/hra/plants/biocontrol/screenagents.htm#Hawkweedcomplex>. Accessed June 10, 2014.