

Tall Hawkweed

Hieracium piloselloides Vill.

Alberta Regulation:
Proposed



Overview:

Tall hawkweed is a member of the Aster Family and native to Europe. It is a fibrous rooted, perennial herb with milky latex in the stems and leaves. Tall hawkweed reproduces by seed and primarily vegetatively by buds from short rhizomes, but lacks stolons.¹ Seeds are produced by apomixis - asexually - as non-native hawkweeds are polyploids (n=9), as opposed to the native diploid hawkweeds. Occasional sexual reproduction occurs, facilitating out-crossing and hybridization.¹

Hawkweeds develop a low rosette of basal leaves before producing a flowering stem. Dandelion-like flowers are borne at the ends of stems and when mature produce a dandelion-like puffball of seeds which are wind dispersed.

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

Identification:

Stems: Are erect, stiff, and lower stems bear 2-4+ mm hairs.³ distally stems can be hairless or with 1-3+ mm stellate and/or glandular hairs.³ Plants grow 40-90 cm tall.¹

Leaves: Basal leaves are dark green and narrowly elliptic. Upper surfaces are smooth or with only a few simple hairs along the margin. Lower leaf surfaces are also smooth except for a few simple or stellate hairs on the mid-vein.¹ Stem leaves are absent or much reduced.

Flowers: Plants produce 11-20 large, yellow flower heads in open, round-topped clusters at the ends of stems.¹ Involucres bear numerous

simple and glandular hairs. Fruits are achenes 1.5-2.0 mm long with 25-40+ white bristles in one series 3-4 mm long.³

Prevention:

Learning to recognize hawkweeds from the many yellow-flowered members of the Aster Family is the key to prevention. Hairs are an important characteristic of non-native hawkweeds and also in distinguishing between species. Rhizomes 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:

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

Mechanical: Mowing before flowering will prevent seed production of taller plants but will not prevent reproduction via rhizomes. Hand digging of small infestations where all

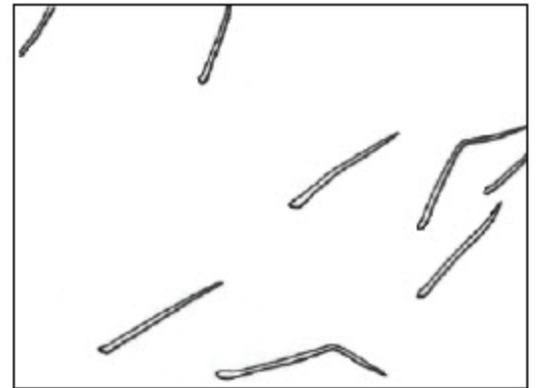
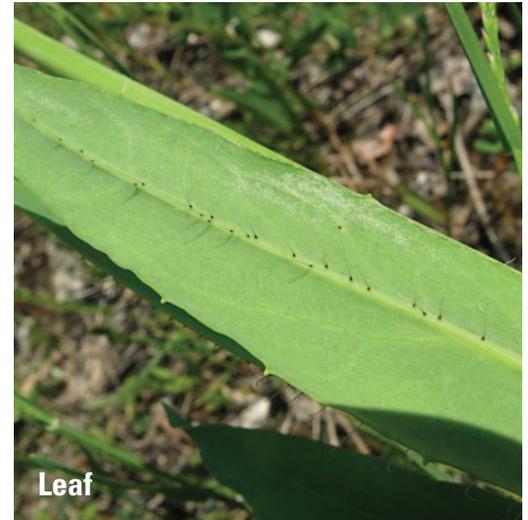
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Tall Hawkweed (Continued)

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 Pest Management Regulatory Agency. Consult your local Agricultural Fieldman or Certified Pesticide Dispenser for more information.

Biological: None researched to date specifically for *Hieracium laevigatum*.



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 Stone, Katharine R. 2011. *Hieracium piloselloides*. In: Fire effects Information System, [Online]. USDA, Forest Service, Rocky Mountain Research Station, Fire sciences Laboratory (Producer). www.fs.fed.us/database/feis Accessed August 2014.
- 3 *Hieracium piloselloides* in Flora of North America. www.efloras.org. Accessed: August 2014.