Hawkweed

Hieracium and *Pilosella* species

www.weedbusters.org.nz

Family
Asteraceae (daisy)

Also known as
Tussock hawkweed (*Hieracium lepidulum*), spotted hawkweed (*Hieracium pollichiae*), *Hieracium argillaceum*, *Hieracium murorum*, *Hieracium sabaudum*, mouse-eared hawkweed (*Pilosella officinarum*, syn. *Hieracium pilosella*), orange hawkweed (*Pilosella aurantiaca* subsp. *carpathicola*), king devil (*Pilosella piloselloides* subsp. *praealta*, syn. *Hieracium praealtum*), field hawkweed (*Pilosella caespitosa*), *Pilosella* × *stoloniflora*

King devil Photo: Trevor James

Where is it originally from?
Europe

What does it look like?
Perennial herbs that form mats of tight, interconnected rosettes with thick underground root systems, and often with above-ground root systems (stolons) as well. Leaves (25-150 x 6-50 cm) are dull green to dark green above, usually paler (occasionally purplish) below, with those at the base of the plant usually slightly toothed, and with bristly hairs above and star-shaped hairs below. Thin stems (10-75 cm) have milky sap. Lemon or yellow dandelion-like flowers (orange, purple when dry, in *H. aurantiacum* and *H. x stoloniflorum*, Oct-May), which occasionally have red stripes on outer face and are followed by fluffy seeds with dirty-white hairs (4-8 mm, Oct-May).

King devil Photo: Trevor James

Are there any similar species?
Hawksbeard (*Crepis*), hawkbit (*Leontodon*) and catsear (*Hypochoeris*) species.

Why is it weedy?
Grows and matures quickly, producing many moderately long-lived and widely dispersed seeds. Creeping, mat-forming habit enables it to tolerate damage and grazing, moderate to cold temperatures, low rainfall, poor soils, and little shade. It produces substances in the soil that discourages other species from growing near it (allelopathic).

Mouse-eared hawkweed Photo: Trevor James

How does it spread?
Seed is spread by wind, and in clothing and animal pelts. Root fragments are spread by water movement, contaminated soil and machinery.

What damage does it do?
Forms dense, long-lived mats in low-growing plant communities (for example, *H. lepidulum* in beech forest), excluding almost all other species.

Which habitats is it likely to invade?
Disturbed shrubland and forest, beech forest, tall and short tussockland, fernland, alpine and volcanic plateau herbfields, bare land, riverbeds and streambanks, and rocky outcrops.

What can I do to get rid of it?
1. Physical removal (all year round) - Dig out entire plant - Ensure all plant material is disposed of to refuse, burnt or buried deeply to prevent regrowth. Ensure no plant material is left on site.
2. Foliar spray - Spot spray with knapsack. Apply metsulfuron herbicide (600g/kg active ingredient) (0.5g/L) to thoroughly wet all parts of plant. Note: Metsulfuron overspray will kill other (desirable) broadleaf plants and has residual activity in the soil which aids in killing below ground parts OR apply picloram/triclopyr herbicide (picloram 100g/l and triclopyr 300g/l active ingredient) at a rate of 6ml/L to thoroughly wet all parts of plant. Note: This herbicide is 'grass friendly' but overspray will kill other (desirable) broadleaf plants and picloram has residual activity in the soil which may leach through soil and kill other plants. Do not use under and around other (desirable) broadleaf plants OR

Apply Clopyralid herbicide (300g/l active ingredient) at a rate of 12.5ml/L. Note: Clopyralid has residual activity in dead plant material and stock witholding periods may apply. Check the label for details.
3. Biocontrol - For information regarding biocontrol agents for Hawkweed (Hieracium), please visit: https://www.landcareresearch.co.nz/discover-our-research/managing-invasive-species/weed-biocontrol/projects-agents/biocontrol-projects/hieracium-2
CAUTION: When using any herbicide or pesticide, PLEASE READ THE LABEL THOROUGHLY to ensure that all instructions and directions for the purchase, use and storage of the product, are followed and adhered to.

What can I do to stop it coming back?
Rhizomes and stolons resprout after spraying or digging. Seeds in soil germinate on bared sites. Planting a dense band of shrubs at infestation edge can prevent vegetative spread. Exclude livestock at all times as healthy tussock communities are less likely to become infested (H. lepidulum will invade intact tussock, shrubland and forest). Begin control at windward end (at seeding time) of infestation. Combination of the above methods may improve competitiveness of native species.