

# FEATURED WEED: NARROWLEAF HAWKSBEARD

A new weed on the scene in Montana is narrowleaf hawksbeard (*Crepis tectorum*).

by Jane Mangold

Extension Invasive Plant Specialist, Montana State University

Narrowleaf hawksbeard is a taprooted, annual wildflower that is native to Eurasia. Plants look similar to dandelions with yellow flowers and a group of leaves clustered near the ground. Narrowleaf hawksbeard can grow up to three feet tall and has been nicknamed a “dandelion on steroids.” Leaves are 0.75 to 4 inches long with the wider portion towards the tip of the leaf. The leaf edges are coarsely-toothed to shallowly-lobed, and leaves at the base of the flowering stem have a stalk and soon wither upon flowering. Upper leaves are more linear and lack a stalk, and a milky sap is emitted when leaves are torn. In contrast to dandelion, narrowleaf hawksbeard plants have leaves on the flowering stem, and plants can become highly branched. In the rosette stage (i.e., before the flowering stem has bolted upward), it is much trickier to differentiate between narrowleaf hawksbeard and dandelion. For those with adventuresome palates, dandelion rosette leaves taste like something you’d want to include in your salad, while narrowleaf hawksbeard leaves are sharply bitter and distasteful (after the taste test, spit it out!). In addition to confusing this weed

with dandelion, it could be confused with the noxious weed hawkweed (*Hieracium* spp.). Hawkweed basal leaves are not coarsely-toothed to shallowly-lobed, and leaves are typically densely hairy. Narrowleaf hawksbeard leaves are hairless to sparsely hairy.

Narrowleaf hawksbeard was first reported in Montana in Flathead County in 1983. It has since been reported in Valley (1994), Granite (1997), Silver Bow (1997) and Daniels (2007) Counties. Regionally, the first report of narrowleaf hawksbeard was in Teton County, Wyoming, in 1948 along the Snake River. On a continental scale, narrowleaf hawksbeard is believed to have been introduced to eastern North America prior to 1890. In addition to narrowleaf, eight other hawksbeard (*Crepis*) species occur in Montana, all of which are native.

Narrowleaf hawksbeard has become especially problematic in no-till croplands, idled croplands seeded with grasses, and hay fields in northeastern Montana. It can also be found along railroads and roadsides and in disturbed open areas. Narrowleaf hawksbeard is often a contaminant in alfalfa seed because the seeds from these two species are difficult to separate. Narrowleaf hawksbeard plants produce from 3,000 to 50,000 seeds per plant, and reproduction occurs through seeds only (i.e., no vegetative reproduction). When the plants have gone to seed, they have white fluffy heads of seed where the flowers used to be. Seeds are dark purple to brown and, like dandelion seeds, are dispersed by the wind. Seeds are also spread in hay, on machinery, and inadvertently in contaminated seed.





Once established, narrowleaf hawksbeard may displace native plants in certain habitats, and it can compete with hay crops for valuable soil moisture.

Narrowleaf hawksbeard is not a state-listed noxious weed in Montana, but it is increasingly problematic across Montana in croplands and rangelands. Hand-pulling is the best recommendation for small infestations. Despite its high dispersal and colonizing abilities, research conducted in Saskatchewan and Minnesota indicates that narrowleaf hawksbeard is a weak competitor. Therefore, cultural and preventive management practices are important, such as maintaining competitive vegetation, minimizing disturbance, and detecting infestations when they are small. Be especially cautious when importing hay from southern Canada, where this plant has been problematic for years. Mowing of non-crop areas before seed set can help minimize the spread of this species.

Narrowleaf hawksbeard can be difficult to control with herbicides, and more research is needed. Unpublished data from Alaska indicates that metsulfuron-methyl products (e.g., Ally or Escort herbicides) applied at the seedling stage provide effective control. Anecdotal evidence from landowners in northeastern Montana suggests 2,4-D herbicide applied at 16 to 32 ounces of product per acre in the fall to basal rosettes works better than other products and timings. Remember that while a high rate of 2,4-D can help control narrowleaf hawksbeard, it can also harm crops such as peas, lentils, canola and flax, especially if applied

in the spring. Once narrowleaf hawksbeard plants have bolted, herbicides are much less effective. Landowners in northeastern Montana also report that products that work well for dandelion typically work well for this plant, but glyphosate (e.g., Roundup herbicide) alone is not effective. Glyphosate temporarily stunts narrowleaf hawksbeard plants, but they continue to grow and produce many more flower stems. Montana State University (MSU) researchers have experiments in progress to identify the most effective herbicides, rates, and timings for application. Look for results about these experiments in future MSU Extension publications.

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