

MEADOW HAWKWEED

(*Hieracium pratense*)

Description: Meadow hawkweed is a member of the Asteraceae or sunflower family. Meadow hawkweed is a herbaceous perennial that contains a milky sap and ranges in height from 10 to 36 inches. In the vegetative stage, the plant appears as a basal rosette with smooth, glabrous leaves. Leaves are 4 to 6 inches long, dark green above, light green beneath, narrow, and spatula-shaped. Each rosette is capable of producing 10 to 30 flower stems. Stems of the plant have short, stiff hairs and may have one to three small, clasping leaves located below the midpoint of the stem. Stems can produce between 5 and 30 yellow, dandelion-like flower heads that are one-half to three-quarters in diameter. Flower heads are ligulate and arranged in a flat-topped cluster. Meadow hawkweed seeds are tiny, black, and have a tawny tuft of bristles on the flattened end.

Plant Images:



Meadow hawkweed



Infestation



Leaf



Flowers

Distribution and Habitat: Meadow hawkweed is native to Europe and now occurs in the eastern United States and the Pacific Northwest. The plant may pose a threat to cooler, sub-humid to humid sites in the northern regions of the United States. Currently, infestations of the plant range from the lowlands of the northern Pacific Coast to elevations of 5,000 feet or more in the mountain states.

Meadow hawkweed prefers soils that are well drained, coarse textured, and moderately low in organic matter. Mountain meadows, clearings in forest zones, pastures, hayfields, cleared timber units, roadsides, and disturbed sites are areas where the plant can thrive. In most cases, meadow hawkweed is found in small, isolated patches and can have a greater potential for spread than orange hawkweed.

Life History/Ecology: Meadow hawkweed is a fibrous rooted perennial that reproduces by a spreading root system and seeds. The plant primarily reproduces vegetatively through the root system. Meadow hawkweed produces long slender stolons and shallow underground rhizomes. Once established, vigorous stolon growth quickly expands the colony, forming a dense stand of plants. New rosettes can develop from plants that sprout from swollen, adventitious root buds or from stolons that elongate throughout the summer. Seedlings germinate in the spring or fall but typically have a higher survival rate in the spring. After a rapid period of rosette growth in the spring or early summer, plants will commonly flower by late June or July with seed maturation and dispersal taking place shortly after. A single flower head can produce between 12 and 50 seeds. Seeds produced can germinate as soon as they are released from the plant and may remain viable in the soil for up to seven years.

Meadow hawkweed may have an allelopathic effect on surrounding vegetation by exuding toxic chemicals into the soil.

History of Introduction: Meadow hawkweed is native to northern, central, and eastern portions of Europe. The plant was most likely introduced into the United States in 1828 as an ornamental. The plant is now found from Quebec to Ontario, and southward to Georgia and Tennessee. Meadow hawkweed was reported in the Pacific Northwest in 1969, and is now found in northern Idaho, northeastern Washington, and northwestern Montana. In North Dakota, meadow hawkweed is not being tracked and no observations have been reported.

Effects of Invasion: Meadow hawkweed is an aggressive species that can quickly develop into large, dense patches, thus reducing native plant communities. Meadow hawkweed can reduce forage quality by choking out desirable plants. The plant can also invade lawns and gardens.

Control:

Management objectives for meadow hawkweed control should involve prevention, early detection, and eradication to prevent the spread of the plant. Control measures should eliminate or reduce seed production and vegetative spread of established populations. Seeds of meadow hawkweed can remain viable in the soil for up to seven years; therefore infestations should be monitored for several consecutive growing seasons to prevent germination of new plants. Combining control methods into an integrated management system will provide the best long-term control of the plant.

Mechanical - Hand pulling can be used on small infestations of meadow hawkweed if the entire root system is removed. Digging can control small infestations but may also stimulate the growth of new plants from rhizomes, stolons, and fragmented roots that are left behind. Mowing can be an effective control measure to reduce or prevent seed production of the plant, but encourages vegetative reproduction and spread. In addition, mower blades will probably miss low-lying meadow hawkweed rosettes. Tillage may also increase the spread of the plant by redistributing fragmented roots, stolons, and rhizomes.

Chemical - Herbicides that effectively control meadow hawkweed include 2, 4-D, picloram, and clopyralid. Herbicides should be applied early in the growing season when the plants are in the rosette stage to prevent flowering and seed production.

Contact your local county extension agent for recommended use rates, locations, and timing.

Biological - No biological control agents are currently available for meadow hawkweed, but research is underway. Meadow hawkweed is palatable and may contain moderate to high nutritive values, therefore cattle and sheep may consume the plant. Overgrazing may increase the spread of the plant, but proper grazing management may suppress growth and spread of meadow hawkweed.

References:

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Meadow hawkweed photograph courtesy of Idaho One Plan.

Infestation photograph courtesy of George F. Russell @ USDA-NRCS PLANTS Database.

Leaf photograph courtesy of Weeds of the West, Tom Whitson.

Flowers photograph courtesy of Eleanor Saulys, Connecticut Botanical Society.