

## ORANGE HAWKWEED

(*Hieracium aurantiacum*)

**Description:** Orange hawkweed, also referred to as devil's paintbrush and orange paintbrush, is a member of the Asteraceae or sunflower family. Orange hawkweed is a herbaceous perennial that contains a milky sap and grows up to 36 inches tall. In the vegetative stage, the plant appears as a basal rosette with many hairy 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 1 to 3 small, clasping leaves located below the midpoint of the stem. Stems can produce between 5 and 30 red-orange colored flower heads that are one-half to three-quarters in diameter and red-orange in color. Flower heads are ligulate and arranged in a flat-topped cluster. Orange hawkweed seeds are tiny, black, and have a tawny tuft of bristles on the flattened end.

### Plant Images:



Orange hawkweed



Rosette



Leaf



Flower head

**Distribution and Habitat:** Orange hawkweed is native to Europe and now occurs throughout the eastern and midwestern United States. Infestations of the plant range from lowlands of the northern

Pacific Coast to elevations of 5,000 feet or more in the mountain states. Orange hawkweed prefers soils that are well drained, coarse textured, and moderately low in organic matter. Areas that support the plant include mountain meadows, clearings in forest zones, pastures, hayfields, cleared timber units, roadsides, and disturbed sites.

**Life History/Ecology:** Orange hawkweed is a fibrous rooted perennial that reproduces by seeds and a spreading root system. Seedlings germinate in the spring or fall but have a higher survival rate in the spring. Rosettes form in the spring or early summer, flower by June or July, and quickly produce seeds by early August. A single flower head can produce between 12 and 50 seeds that can remain viable in the soil for up to seven years. Vegetative reproduction can occur through stolons, rhizomes, or adventitious root buds. Plants overwinter as rhizomes and regrow the following spring.

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

**History of Introduction:** Orange hawkweed is native to northern and central regions of Europe. The plant was first introduced in North America, in Vermont in 1875, as an ornamental. Orange hawkweed escaped from landscape plantings, gardens, and cemeteries and now occurs throughout the eastern seaboard, into the Midwest, extending west to Minnesota and Iowa, south to Virginia and North Carolina, and along the eastern slope of the Rocky Mountains in Colorado. Orange hawkweed has also been reported in Washington, Oregon, Idaho, and northwestern Montana. In North Dakota, orange hawkweed is not being tracked and no observations have been reported.

**Effects of Invasion:** Orange hawkweed is an aggressive species that can quickly develop into large, dense patches, thus reducing native plant communities. These patches can quickly expand and produce dense mats of rosettes that can eventually choke out desirable native and forage species in pastures. Infestations can spread to threaten lawns and gardens also.

**Control:**

Management objectives for orange 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 orange 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 orange 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 orange hawkweed rosettes. Tillage may also increase the spread of the plant by redistributing fragmented roots, stolons, and rhizomes.

*Chemical* - Herbicides that effectively control orange 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. Dicamba may be used to control orange hawkweed in turf and lawn.

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

*Biological* - No biological control agents are currently available for orange hawkweed, but research is underway. Orange 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 orange hawkweed.

### **References:**

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Orange hawkweed photograph courtesy of Janet Novak, Connecticut Botanical Society.

Rosette photograph courtesy of Stevens County Noxious Weed Control Board.

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

Flower head photograph courtesy of Washington State Noxious Weed Control Board.