



Common Mullein

Verbascum thapsus (Aka Flannel Plant, Velvet Plant, Lungwort, Feltwort, Jacob's Staff, Torchplant)



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Overview:

Common mullein, a biennial in the figwort family, is native to Asia. It was deliberately introduced to the United States in the 1600s as both a medicinal herb and a fish poison. Historically it has been used to treat a variety of ailments ranging from coughs to ear-aches.¹

Common mullein naturalized and rapidly spread west after introduction. Currently it is not a weed of cultivated crops.² However, it can overtake and displace native species in disturbed areas.³ It is also thought to serve as an alternate host for insects which can attack apples and pears.²

Common mullein is a high seed producer. A single plant may develop as many as 240,000 seeds. The seeds have no specialized structures for dispersal so most fall in close proximity to the parent plant. Research has shown that the seeds can remain viable in the soil more than 100 years.²

Habitat:

A colonizing species, common mullein will readily establish in disturbed areas with well-drained, sandy or gravelly soils.³ It is intolerant of shade and is frequently found along roadsides, rights-of-way and waste areas. Common mullein also grows in meadows, pastures and forestry cut blocks. It is one of the first species to appear on recently burned sites.²

Identification:

Stems: Erect, 0.3-0.2 m in height with few to no branches.¹ Stems appear ridged and are densely woolly-hairy.⁴ Mature stems from the previous season are brown and often remain standing through the winter.⁵

Leaves: Rosette leaves are grey-green, 5-40 cm long and woolly-hairy or felt-like.² Upper leaves are alternate and smaller (10-30 cm long) with bases that extend down the stem.⁴

Flowers: Bright yellow (rarely white) flowers are produced in 20-50 cm spike-like racemes. Individual flowers mature from the bottom to top in a spiral pattern.⁴ Each flower is 5-lobed and nearly regular in shape.²

Seeds: Brown, irregular, oblong seeds (0.5-0.7 mm long) are located in two compartment capsules. The surface of each seed has longitudinal grooves and ribs.²

Prevention:

The key to prevention is to avoid disturbance from machinery, vehicles and overgrazing.⁵ Common mullein is highly unpalatable to cattle and sheep so maintenance of proper stocking rates will help curtail spread in pastures or rangeland.⁶ Sources for soil used in construction should be checked to ensure they are mullein-free. Contaminated soil used for building highways and buildings is believed to have been a major means for dispersal of this plant in the past.² Small infestations of common mullein are easily hand-pulled or hoed. If flowers or seeds are present, plants should be bagged and burned.⁷

Control:

Cultural: Seeding bare ground with early successional native grasses and forbs will decrease the establishment of common mullein on disturbed sites.⁷

continued next page

Common Mullein (Continued)

Mechanical: Where feasible, tillage provides good control of common mullein rosettes.⁸ Mowing is less effective since the rosettes will continue to develop after cutting. Once mowing ceases, the plants will produce axillary branches that can flower later.⁶

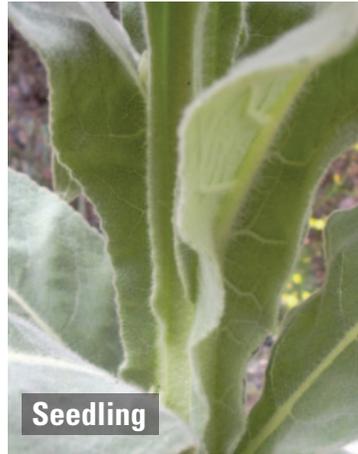
Chemical: 2,4-D, Bromacil, Dichlorprop in a product mix with 2,4-D, Hexazinone and Imazapyr are registered for use on mullein. Always check product labels to ensure the herbicide is registered for use on the target plant in Canada by the Pest Management Regulatory Agency. Always read and follow label directions. Consult your local Agricultural Fieldman or Certified Pesticide Dispenser for more information.

Biological: A weevil, *Gymnaetron tetrum*, was accidentally introduced to North America from Europe. The larvae destroy up to 50% of the seeds, but not enough to keep populations in check.⁴ Another agent, the mullein moth (*Cucullia verbasci*) is currently being researched in the United States.⁷



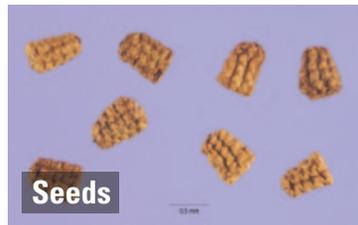
Flowers

USDA APHIS PPQ Archive, USDA APHIS PPQ, Bugwood.org



Seedling

Photo by Forest & Kim Starr, Starr Environmental, Bugwood.org



Seeds

Steve Hurst, USDA NRCS PLANTS Database, Bugwood.org



Leaves

Photo by Richard Old, XID Services Inc., Bugwood.org



Mature Stem

Photo by Richard Old, XID Services Inc., Bugwood.org

REFERENCES

- 1 Mitich, L.W. 1989. Common Mullein – The Roadside Torch Parade. *Weed Tech.* 3: 704-705
- 2 Invasive Plants of California's Wildland – *Verbascum thapsus* <http://www.cal-ipc.org/ipc/management/ipcw/pages/detailreport.efm?usernumber=87&surveynumber=182.php>
- 3 United Forest Service Weed of the Week – Common Mullein http://www.na.fs.fed.us/fhp/invasive_plants/weeds/common-mullein.pdf
- 4 Gross, K.L. and P.A. Werner. 1978. The Biology of Canadian Weeds. 28. *Verbascum thapsus* L. and *V. blatteria* L. *Can. J. Plant Sci.* 58: 401-413
- 5 Common Mullein: Options for Control <http://www.co.lincoln.wa.us/weedboard/biocontrol/COMMON%20MULLEIN%20BROCHURE.pdf>
- 6 Common Mullein – *Verbascum thapsus* Fact Sheet http://sbsc.wr.usgs.gov/research/projects/swepic/factsheets/vethsf_info.pdf
- 7 Plant Conservation Alliance Fact Sheet: Common Mullein <http://www.nps.gov/plants/alien/fact/pdf/veth1.pdf>