

Common mullein (*Verbascum thapsus*)

History: Common mullein is native to Europe, northern Africa, and Asia. It was intentionally introduced in America by early settlers, who placed crushed seeds of common mullein into slow-moving water to poison fish. The toxic seeds caused the fish to stop breathing, making them easy to collect and harvest. By the late 1800's, it was reported on the west coast and is now common in all states. This species is listed as a noxious weed in Colorado and Hawaii. In Montana, common mullein is listed as a noxious weed in Beaverhead, Deer Lodge, Lewis & Clark, Mineral, Stillwater, and Yellowstone Counties.

Identification: Common mullein is a densely woolly, spring-germinating biennial. In the first year, it produces a basal rosette of large furry leaves and a substantial crown. In the second year, it produces a single, thick, erect flowering stem with yellow flowers. The flowering stem is typically several feet tall.

Habitat: Typical habitats include burned areas, roadsides, fields, pastures, forest clearings, abandoned agricultural land, waste areas, and other disturbed areas. It is found most commonly on well-drained, dry, and sandy or gravelly soils. It is considered a pioneer species because it is often one of the first species to grow in disturbed areas.

Spread: Common mullein reproduces by seed, and a plant can produce between 136,000 to 175,000 seeds. Seeds can remain viable for 35 to 100 years or longer. Because the seeds need light to germinate, germination is restricted to primarily bare soil after disturbances. Seeds have no mechanism for efficient long distance dispersal by animals or wind, and about 95% of seeds fall within five meters (16 feet) of parent plants.

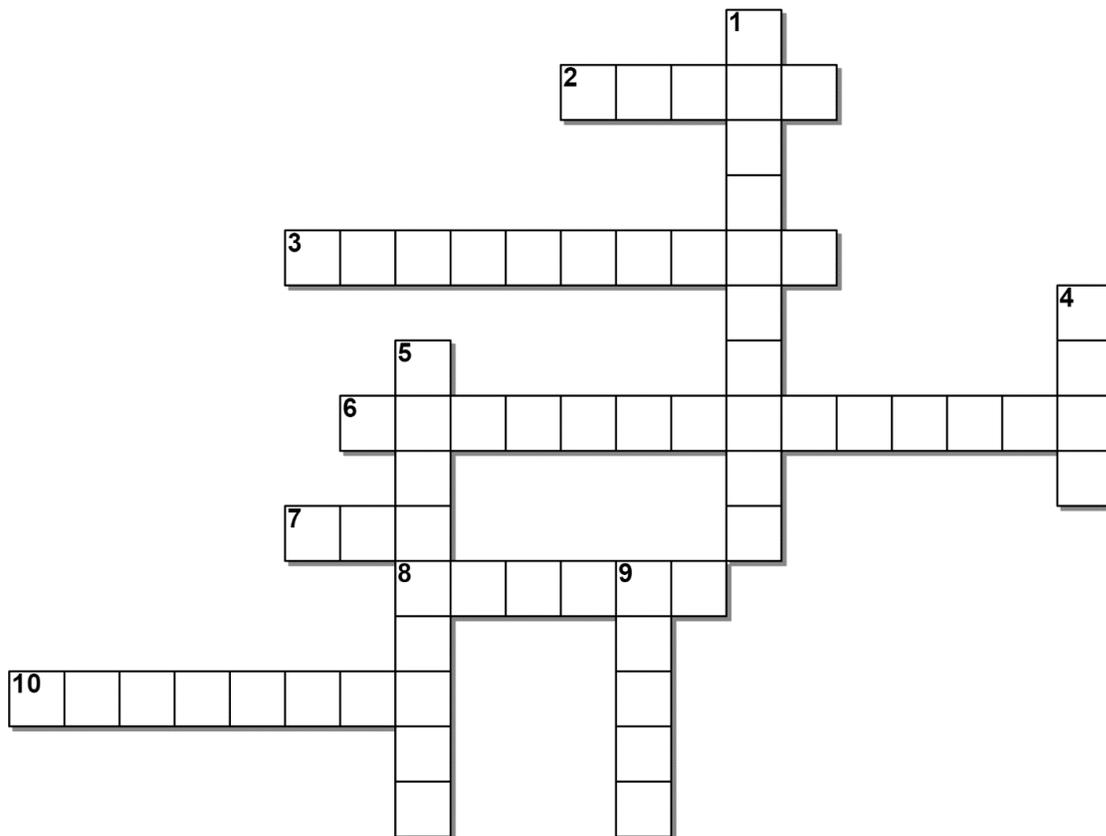
Impacts: In initial stages of growth, common mullein grows more vigorously than many native plants, and colonies may delay reestablishment of native plants and grasses in a newly disturbed setting. However, it can be outcompeted by more desirable plants and often disappears from plant communities over time. Common mullein is a minor problem in cropping systems, because it is unable to survive cultivation and is intolerant of shade. It can persist and remain problematic in overgrazed pastures; it is generally avoided by livestock because of the woolly leaves. Common mullein can be beneficial in some circumstances and is considered a medicinal plant, as well as a food source for elk and deer, and a pollen source for bees.

Management: Avoiding disturbance is the most cost-effective way to manage this species. Common mullein is difficult to eradicate once established due to its long-lived seed bank, but there are several options for management. Hand pulling is an effective method for reducing populations if plants are pulled before seed production. Similarly, removing plants with a hoe, making sure to cut through the crown, can control common mullein. Control with herbicide is considered difficult due to woolly foliage that impedes herbicide absorption. However, use of a surfactant can alleviate that problem. Glyphosate, 2,4-D, triclopyr, sulfometuron-methyl, and tebuthiuron have been found to provide control when properly applied. Mowing is not considered effective, and no insects or diseases have been approved for introduction as biological control agents for common mullein in North America.



Photo credits: Matt Lavin,
Montana State University

Test your knowledge of common mullein



Across:

- 2 Description of furry leaves
- 3 This product used with herbicide can alleviate the problem of wooly foliage impeding herbicide absorption
- 6 Broad description of typical habitat (2 words)
- 7 Tool that can be used to control common mullein
- 8 Number of stems common mullein typically produces
- 10 Continental US state where common mullein is considered a noxious weed

Down:

- 1 Animals that eat the plant (3 words)
- 4 Animal that early settlers poisoned with seeds of common mullein
- 5 Animals that avoid eating the plant
- 9 Seeds need this to germinate

Solutions are posted to the MSU Extension Invasive Rangeland Weed website:

www.msuinvasiveplants.org/monthly_weed_post.html

