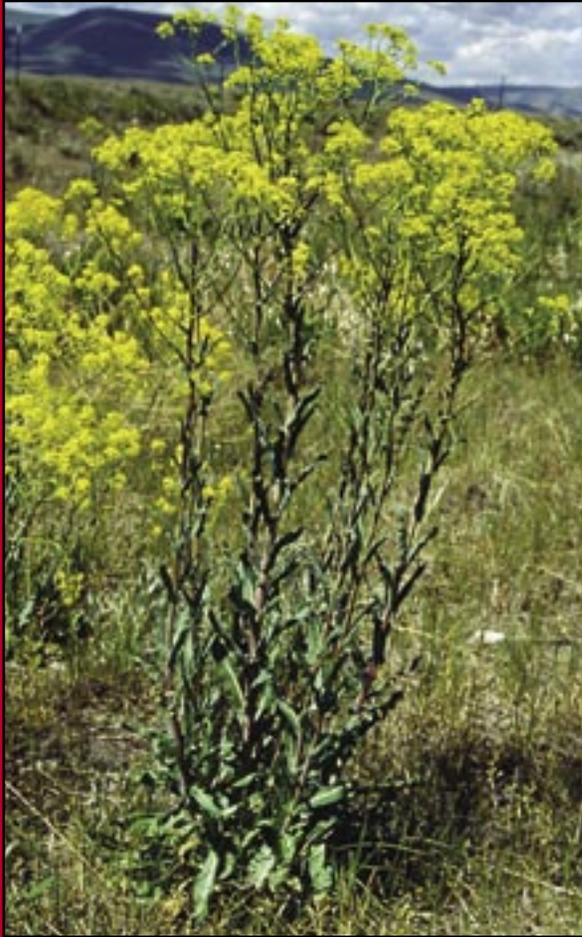


Stop the Spread of DYER'S WOAD



Plant



Seed



Flower



Leaves on stem

Dyer's Woad (*Isatis tinctoria*)

by Tamara Enz and Monica Pokorny

Dyer's woad is a Montana noxious weed that invades disturbed sites with sandy or rocky soils such as roadsides, railroad right-of-ways, dry pastures, rangeland, agricultural fields and forests. It causes undesired environmental and economic impacts, and once it is established it is difficult to control.

The Montana Dyer's Woad Cooperative Project is working to prevent this weed from becoming more widespread, and they need your help. Learn now how to identify dyer's woad and if it is found in your area, call 406-570-8010 or e-mail mpokorny@montana.net. *The Montana Dyer's Woad Cooperative Project currently pays a \$50 bounty for each new infestation found more than half a mile from a known population.*

How do I identify this plant?

Dyer's woad taproots can reach 3 to 6 feet in depth and branch laterally within the first 12 to 20 inches of soil. Seeds germinate in early spring or fall.

Stems and leaves: When the plant is young, the leaves at the base of the plant are widest at the tips and are covered with soft hairs. As the plant matures and forms stems, the leaves lose their hairs. A key identification feature in dyer's woad is the way that the leaves clasp the stem. This looks like two 'lobes' wrapping around the stem. Leaves and stems are covered with a white, powdery bloom which rubs off when touched. The leaves feel rubbery, similar to cabbage leaves, and the mid-vein of each leaf is white.

Flowers: Plants flower from April to July or sometimes later in favorable conditions. There are usually several flowering stems per plant and the flowers are bright yellow. Each flower has four petals.

Fruits: The plant's hanging fruit is another key identifying feature of dyer's woad. The fruits are flattened, oblong and green when immature, but brown when ripe. Each fruit produces one seed, with an average plant producing 300 to 500 seeds.

Zero spread!

Preventing the spread of this weed is the most time and cost effective method of control. To help stop the spread of dyer's woad,

- Always use weed free forage and seed, and clean all vehicles, equipment, animals and clothing before moving from an infested site to a clean site.
- Monitor for new plants and control infestations. For small infestations, hand pulling is effective. To prevent resprouting, dig out at least the top 3 to 4 inches of root. Cultivating, once in the spring before seed set, and once in the fall during regrowth is another recommended control method. Herbicides can be used for control and are most effective before the plant bolts. Metsulfuron plus surfactant is recommended. (Contact your County Weed District or MSU Extension Service for site-specific herbicide use and restrictions.) A native fungal rust, *Puccinia thlaspeos*, can be effective in preventing dyer's woad from producing seed or fruit. An integrated management approach, including revegetation of desired species, may be the most successful management method.

TAKE ACTION TODAY!

For more information contact your County Weed District, MSU Extension, or the following resources:

- <http://www.montana.edu/wwwpb/pubs/mt9614.html>
- <http://www.cdffa.ca.gov/phpps/ipc/weedinfo/isatis.htm#anchor1159258>
- http://www.nwcb.wa.gov/weed_info/Written_findings/Isatis_tinctoria.html
- <http://www.unce.unr.edu/publications/files/nr/2002/FS0262.pdf>