Weed of the Month: Dyer's Woad

Welcome to our "Weed of the Month" feature, designed to raise awareness about the impact of noxious invasive weeds on our environment. This month, we're focusing on Dyer's Woad (Isatis tinctoria), an aggressive plant species that poses a significant threat to native ecosystems and agricultural lands.

Identification:

Dyer's Woad is found in the intermountain west, including California. It was once cultivated in Russia as a source of valuable blue dye during the medieval era. Also known as Marlahan mustard in Siskiyou County, Dyer's Woad is a biennial or short-lived perennial of the mustard family. It produces ½ to ¾ inch long seedpods that gradually turn from yellowish green to purplish brown or black at maturity. Most plants can produce anywhere from 350 to 500 seeds per year.

Top Left- Dyer's Woad infestation.

Bottom Left- Dyer's Woad seed and outer shell of seed pods

Invasive Behavior:

Originating from Europe, Dyer's Woad has become very invasive to many parts of North America. It thrives in a variety of habitats, including disturbed and undisturbed sites, roadsides, railroads, grain and alfalfa fields, and pastures. It has a blooming period from April to July and is reproduced by seed. It spreads by roads, trails, equipment, hay, forage and seed.

Impact:

The presence of Dyer's Woad can have serious ecological and economic consequences. The plant is highly competitive and can grow in large, dense colonies that displace other desired plants. Being that it competes with other desirable plants and crops with its 3 to 5 ft long taproot, it causes concern to growers.

Top Right- Adult Dyer's Woad flower head.

Bottom Right- Dyer's Woad seed pod stages before disbursement.

Control and Management:
Early detection and consistency of Dyer's Woad is most important when it comes to its control. Being that the plant can produce and spread a multitude of seeds, it is important to start the eradication process before these seeds are developed. A mechanical control method is hand pulling and should take place before the seed set is formed. After the first round, the site should be visited another two to three weeks later to make sure that any spots that were missed are taken care of. In this case, mowing is not beneficial for complete eradication because resprouting occurs in the crown of the plant. On the other hand, it can reduce seed populations and reduce root reserves.

Top Left- Dyer's Woad rosette.

Bottom Right- Adult Dyer's Woad leaves.

Prevention:
Preventing the spread of Dyer's Woad is key to its control. Routinely inspect and maintain your property for any signs of this invader.

By staying informed and taking proactive measures, we can work together to curb the spread of Dyer's Woad and protect our native ecosystems. Join us next month for a new "Weed of the Month" feature, where we'll highlight another noxious invasive plant and share tips on how to address it.

For more information about Dyer's Woad, feel free to visit the University of California Agriculture and Natural Resources Integrated Pest Management website at:
https://ipm.ucanr.edu/legacy_assets/PDF/PESTNOTES/pndyerswoad.pdf
For more information about our other county programs, visit our website at:
https://www.suttercounty.org/government/county-departments/agricultural-department

Thank you for your dedication to preserving our environment and agricultural land!

- Sutter County Agricultural Commissioner's Office