



College of Agriculture
Cooperative Extension Service

LIBRARY

MAR 6 1984

UNIVERSITY OF IDAHO



Dyers Woad

. . . *search and destroy*

Dyers woad, *Isatis tinctoria*, is spreading onto Idaho range and crop land. Stop this enemy! Find it and destroy it by any means available. Use an intensive, persistent control and eradication program. Community cooperation and participation are essential.

Some "weed fighters" have been aware of this serious weed for many years. However, public concern over its recent spread onto agricultural lands is needed before successful control and eradication can be achieved.

Dyers woad is a vigorous weed plant belonging to the mustard family. It is native to Europe. Its name



In full bloom, dyers woad is a colorful and easily recognized plant whether it occurs alone or in patches.

comes from Germany where dye was once extracted from the purplish seed pod and they called it "Dyers weed." A plant may live for only one year, but more commonly the crown buds produce vigorous new growth each year for two or more years. Therefore, it may persist as an annual, biennial or perennial. This characteristic enables this weed to survive, compete and produce a large supply of seed for greater spread.

The plant starts growth early in the spring by developing a rosette of leaves that are bluish-green in color and slightly hairy. Soon thereafter, the stalk emerges, branching widely and bearing yellow flowers and numerous 1-seeded seed pods.

The umbrella-shaped plant starts to flower as early as May or as late as July, depending on the elevation of the area where it is growing. The flowers have a unique yellow color which makes single plants or patches of dyers woad very noticeable. The plant is also easy to recognize during the seed stage. Long (about $\frac{3}{8}$ inch), slightly pear-shaped, winged, black seed pods hang like ornaments, giving the plant a black appearance. The plants are usually 2 to 3 feet tall, but may reach a height of 4 feet. The few leaves on the upper plant clasp the stalk. The plant is rather woody and has a heavy root growth.

Dyers woad generally shows up first along roadsides and railroad rights-of-way. From there it spreads readily by seed to rangeland and crop fields. It thrives on rangeland, along rights-of-way, in winter wheat, in irrigated alfalfa, and along waterways.

Dyers woad is presently found in all counties in eastern Idaho, and has also been found in Ada,

Gooding, Jerome, Blaine, Twin Falls and Cassia counties. Intensified programs to eradicate this weed are successfully reducing it in Franklin, Bonneville and Jefferson counties. The largest infestations are in Bear Lake, Bannock and Bingham counties. Neighboring counties in Wyoming and Utah are also infested.

This weed is definitely a threat. It can and should be eliminated now before it becomes more widely established. A persistent, intensive "search and destroy" program is essential for successful dyers woad control eradication.

Some tolerance to most herbicides makes dyers woad difficult to control and increases its threat to our lands. For small areas, the best control is to spray to wet with a solution composed of 1 gallon of low volatile ester 2,4-D in 100 gallons of water with a suitable adjuvant. Repeat of 2,4-D applications are necessary for complete eradication. Pulling or cutting while the plants are young is also effective. This must be repeated as new plants show up.

For large areas, spray with 2,4-D at the rate of 1½ pounds per acre. Always spray before any flowers appear. Early recognition and treatment is essential for successful control and eradication. Application of 2,4-D after the seed starts to develop reduces the ability of the seed to produce new plants, but

some viable seed will still be produced. Remember, seed is the start of all weed problems.

Recent work at Utah State University by Dr. Jack Evans offers the following suggestions on the control of this weed:

Apply amine 2,4-D at the rate of 1½ quarts (1½ pounds acid equivalent) per acre. It is essential to make the application while the plant is in rosette form before the flowering stalk is 4 inches high. This will usually be from March to May depending on location, or

Apply 2,4-D ester at 1 to 1¼ pounds acid equivalent per acre during the same period of time. This formulation is best for aerial application.

The addition of 1 percent surfactant to either 2,4-D spray will result in improved control, or

For spot treatment in areas which are difficult to reach or areas where longer soil residual is desirable, such as rights-of-way, apply 4 to 6 ounces of picloram either as 1½ pints of Tordon 22K as a foliage spray in early spring or fall or 20 pounds of Tordon 2% beads per acre in spring or fall.

Caution: When using picloram (Tordon) avoid drift to sensitive crops and do not in any way allow any of the chemical to contaminate soil where sensitive crops will be grown or to contaminate irrigation or potable water.

The authors: The authors of this publication are members of the University of Idaho Cooperative Extension Service faculty. R.E. Higgins is extension agronomist and weed control specialist, headquartered at the U-I Research and Extension Center, Twin Falls. DeVere Tovey is extension agricultural agent in Franklin County.

Trade names are used only to identify chemicals as they are known in the marketplace. No endorsement by the University is intended nor is discrimination implied against products not listed.

Follow label instructions carefully when handling any chemicals.

Issued in furtherance of cooperative extension work in agriculture and home economics. Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, James L. Graves, Director of Cooperative Extension Service, University of Idaho, Moscow, Idaho 83843. We offer our programs and facilities to all people without regard to race, creed, color, sex, or national origin.