

**WRITTEN FINDINGS OF THE
WASHINGTON STATE NOXIOUS WEED CONTROL BOARD
(Updated 3/99)**

Scientific Name: *Cuscuta approximata* Bab. Var. *urceolata* (Kunze) Yuncker

Common Name: dodder, smoothseed alfalfa

Family: Cuscutaceae

Legal Status: Class C

Description and Variation: Annual. Parasitic, yellow or orange or reddish, twining about other plants and obtaining nourishment from them by means of “suckers”. The flowers are in small (2-3mm long), yellowish and somewhat fleshy. They are found in dense clusters. The seeds are about 1/16 inch long, irregularly round with a rough texture. Dodder seeds resemble alfalfa seeds, and they are sometimes distinguished from alfalfa seeds when they cling together in small clusters. This plant has aerial roots. There are no green plant parts on this parasitic species. There are about 50 species of dodder in the Northern Hemisphere, and three species impact the Northwest regions.

Economic Importance:

Detrimental: Parasitic and damaging to leguminous crops, especially alfalfa, and clover. Impacts vegetable and forage crops, ornamentals and native plants, and weeds. Dodder can suppress or kill the host plants.

Habitat: Older farming areas, roadsides, ditches and fields.

Geographic Distribution: This species is thought to be native to the Old World, but several varieties are now well established in North America, although our plants are all referable to the var. *urceolata*.

History: Found in the western United States, Eurasia and Africa. Reported to be a problem in the late 1950’s, from the Walla Walla area. Research on dodder and alfalfa began in the 1960’s.

Growth and Development: Dodder germinates on the ground. A small root anchors the plant, at the same time a thread-like stem grows upward. When this stem comes into contact with an object, it begins to twine around that object. If this stem comes into contact with a green plant, suckers then develop, penetrating the host plant and absorbs the food. At this time, the small root disappears, and the dodder is completely parasitic upon its host plant. New branches are continually sent out, which continue to develop suckers and deplete the green plant.

Reproduction: Annual, reproduces by seed. 16,000 seeds per plant. Seed viability times range from 20 to over 60 years. The seeds can travel by water, along irrigation ditches. Germination can be delayed for years. Moist soil and sunlight is required for germination. Seeds can germinate with a host plant, unlike most parasitic plants.

Response to Herbicide: Apply Prowl to established alfalfa between January 15 and April 30 but before dodder germinates (William et.al 1998). Read and follow current herbicide labels and recommendations for control. Refer to the latest edition of the Pacific Northwest Weed Control Handbook.

Response to Cultural Methods: Rotate fields with grasses, which are immune to dodder, and will not be a host crop. Prevent new infestations by cleaning combines and farm equipment. Hay with dodder seed should only be used in feed lots.

Response to Mechanical Methods: It is easier to prevent dodder establishment, than to eradicate it. When dodder is confined to small areas, it is recommended to cut it out, let it dry, and burn it.

Biocontrol Potentials:

References:

- *Dawson, J.H., F.M. Ashton, W.V. Welker, J.R. Frank and G.A. Buchanan. 1984. Dodder and Its Control. Farmer's Bulletin No. 2276, United States Dept. of Agriculture.
- *Hitchcock, Cronquist, Ownbey and Thompson. 1969. Vascular Plants of the Pacific Northwest. University of Washington Press. Vol. 4:89-90.
- *LaRea, J. D. 1980. Gilkey's Weeds of the Pacific Northwest. Oregon State University Press.
- * Weed Alert - Parasitic Dodder. British Columbia Ministry of Agriculture and Food.
- *Rohse, E.D. Feb. 20, 1998. Clover Growers Warned About Weed Dodder. Capital Press newspaper article.

* *References available from the Washington State Noxious Weed Control Board Office in Kent.*

Rationale for Listing:

Dodder is a parasite that often kills the host plant, and it quickly spreads. This parasite reduces the yield of any plant it infests, with the biggest impact in the west to alfalfa, and to tomatoes in California. Seed production is lost, and harvesting machinery needs to be cleaned to prevent further spread.