

**WRITTEN FINDINGS OF THE  
WASHINGTON STATE NOXIOUS WEED CONTROL BOARD**

Scientific Name: *Carduus nutans* L.

Common Name: Musk thistle, nodding thistle

Family: Compositae

Legal Status: Class B: (a) regions 1, 2, 5, 6, 7, 8, 9, 10  
(b) Spokane and Pend Oreille counties

Description and Variation: Musk thistle is a biennial although it may occasionally act as a winter annual. It is a robust thistle and given the right conditions may grow to six or seven feet. Large solitary flowers heads at the ends of the stem are reddish purple. The flower heads droop at maturity. Each plant may have 50 to 100 flower heads with up to 1000 seeds per head. Seeds do not have a plume or parachute. Stems are spiny and winged except just below the flower head. Leaves are alternate on the stem, deeply lobed, and spiny.

Economic Importance: Musk thistle invades pastures, meadows, and fields. In so doing it crowds out other more desirable forage plants. Livestock will not graze in areas heavily infested with musk thistle thus decreasing available pasture. It spreads rapidly by seed. It also invades streambanks, hindering access and has been reported as problematic in grain fields.

Geographical Distribution: (regional) Musk thistle is a native of Europe and Asia and has been present in the eastern United States for nearly 80 years. Most western states report some level of infestation.

Habitat: pastures, rangeland, native meadows, roadsides, forests, stream banks, and occasionally grain fields

Growth and Development: biennial, occasionally a winter annual

Reproduction: seed, wind dispersed short distances

Response to Herbicides: 2,4 - D, dicamba, clopyralid and picloram effectively control musk thistle (See Pacific Northwest Weed Control Handbook). Read and follow current herbicide labels and recommendations for control.

Response to Cultural Methods: May be handpulled or grubbed out. Properly managed pasture will resist musk thistle infestations, so long as adjacent infestations are controlled. In cropland situations cultivation will kill young seedlings.

Biocontrol Potentials: A seed eating weevil, *Rhinocyllus conicus* is quite effective in reducing seed output.

References:

Bultsma, P.M., T.D. Whitson, and F. Lamming. 1991. Comparison of several herbicides applied at different growth stages for control fo Canada thistle (*Cirsium arvense*) and msuk thistle (*Carduus nutans*). *In*: Whitson, T. and M Ferrell, eds. Rangeland Research and Extension Demonstrations 1991. University of Wyoming Cooperative Extension Service, Agricultural Experiment Station, College of Agriculture.

Dunn, P.H. 1976. Distribution of *Carduus nutans*, *C. acanthoides*, *C. pycnocephalus*, and *C. crispus* in the United States. *Weed Science* 24:518-524.

Fick, Walter H. 1986. Control of bolted musk thistle using clopyralid. *Down to Earth*. 42:1.

Higgins, Robert E. 1977. Musk thistle and its control. University of Idaho Cooperative Extension Publication. Current Information Series No. 20.

Ministry of Agriculture, B.C. 1984. Musk Thistle Fact Sheet. Agdex 640.

Nilson, Erick B. and Walter H. Fick. 1982. Musk Thistle Identification and Control. Kansas State University Cooperative Extension Publication.

Whitson, Tom D. 1987. Weeds and Poisonous Plants of Wyoming and Utah. University of Wyoming Cooperative Extension Publication.