

**WRITTEN FINDINGS OF THE
WASHINGTON STATE NOXIOUS WEED CONTROL BOARD
(May 1995)**

Scientific Name: *Centaurea jacea x nigra*

Common Name: Meadow knapweed

Family: Compositae (Asteraceae)

Legal Status: Class B: (a) regions 1, 2, 3, 4, 5, 7, 9, 10
 (b) Region 6 except Kittitas County
 (c) Region 8 except Clark County

Description and Variation: Meadow knapweed is a perennial growing from a woody root crown, with 20 to 40 inch tall upright stems. Its basal leaves can be up to 6 inches long and 1 1/4 inch wide, tapering at both ends. The stem leaves are lance-shaped, stalkless and sometimes shallowly lobed, while the uppermost leaves are smaller and not lobed. The rose-purple to occasionally white flowers occur in solitary, oval or almost globe-shaped flower heads at the ends of branches. The light to dark brown involucre bracts are roundish, with a torn, thin, papery margin, or a comb-like, fringed margin. More apparent on outer bracts, the fringes are about equal in width to the central body of the bract. Meadow knapweed flowers from July to September, producing ivory-white to light brown seeds that may or may not have a barely noticeable plume. However, because it is a hybrid, meadow knapweed traits are highly variable.

Economic Importance: As with other knapweed species, meadow knapweed is proving to be an aggressive and invasive species. It primarily invades pastures and meadows of the type or condition that support oxeye daisy - of the two, meadow knapweed is the more palatable to livestock.

Geographic Distribution: Meadow knapweed occurs in Europe as a hybrid between black and brown knapweeds. Introduced to the Northwest, it has been found in the following Washington counties: Clallam, Clark, Cowlitz, Jefferson, King, Kittitas, Klickitat, Lewis, Pierce, San Juan, Skamania, Thurston, Walla Walla, Whatcom, Whitman, and Yakima.

Habitat: [Meadow knapweed's] "...habitats vary among those of the parent stock, brown and black knapweed, but it may exhibit greater adaptability to new conditions than either parent. Meadow knapweed occurs with brown knapweed at elevations up to 6600 feet in the mountains of Central Europe.

...In Washington, it grows in the more mesic meadow and pasture areas (Conboy Basin), usually in openings in forested areas (Snoqualmie Pass, Liberty) or along drainages (Spring Creek near Uniontown in Whitman County). Due to the low levels of brown and black knapweed here,

meadow knapweed was probably imported as a hybrid 'swarm' from Europe. Some regional hybridization may have occurred" (Roche' et al. 1986:30-31).

History: Reports from British Columbia suggest that meadow knapweed may have been brought in through contaminated alfalfa seed, but the exact method and date of introduction are unknown. There is a story that suggests that it was introduced into Oregon as a forage plant called "bull clover." Meadow knapweed was collected in Multnomah County, Oregon in 1911, but the earliest record of the plant in Washington came from Roche Harbor, San Juan County in 1923.

Growth and Development: Meadow knapweed is a perennial plant.

Reproduction: Seed and crown.

Population Dynamics: See *Knapweed Newsletter*.

Response to Herbicides: The commonly used selective herbicides are effective - see recommendations in the Pacific Northwest Weed Control Handbook.

Response to Cultural Methods: Meadow knapweed may be cultivated out. A fallow program prior to pasture reseeding should eliminate it.

Biocontrol Potentials: The seed head gall fly, *Urophora quadrifasciata*, has had fair success on meadow knapweed.

References:

*Roche', B.F. Jr., G.L. Piper, and C.J. Talbott. 1986. Knapweeds of Washington. Cooperative Extension Bulletin EB1393. Washington State University, Pullman.

*Roche', B.F. Jr. and C.J. Talbott. 1986. The collection history of *Centaureas* found in Washington State. Research Bulletin EB 0978. Agricultural Research Center, Washington State University, Pullman.

*Roche', B.F. Jr. and C.T. Roche'. 1991. Identification, introduction, distribution, ecology, and economics of *Centaurea* species. In James, L.F., J.O. Evans, M.H. Ralphs, and R.D. Child, eds. Noxious Range Weeds, pp. 369-388. Westview Press, Boulder, CO.

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