MEADOW KNAPWEED
(*Centaurea debeauxii*)


Meadow knapweed

Description: Meadow knapweed is a member of the Asteraceae or sunflower family. Meadow knapweed is a perennial that can grow up to 3 1/2 feet tall. Stems of the plant are erect, branched near the middle, and slightly pubescent. Basal rosette leaves are lance-shaped, up to 6 inches long, 1 1/4 of an inch wide, slightly pubescent, and may be pinnately cut or have wavy margins. Lower leaves are long-stalked, entire, coarsely lobed, or toothed. Upper stem leaves are small, stalkless, unlobed and almost bract-like. Flowers are solitary, rose to purple in color, occasionally white, and almost globe-shaped. Bracts, located below the flower head, are light to dark brown in color, roundish, with a torn, thin, papery margin, or a comb-like, fringed margin. Seeds are about 1/8 inch long, ivory-white to light brown in color, and sometimes bearing a row of short hairs.

Meadow knapweed is considered to be a hybrid between brown knapweed (*Centaurea jacea* L.) and black knapweed (*Centaurea nigra* L.).

Plant Images:


Rosette

Distribution and Habitat: Meadow knapweed is native to Europe and is now spread throughout the Pacific Northwest and portions of the northeastern United States. The plant commonly infests roadsides, waste areas, fields, pastures, and disturbed habitats. Meadow knapweed will typically flourish on moist

sites which include irrigated pastures, meadows, streams, river banks, irrigation ditches, and openings in forested areas. The plant generally prefers full sun, but can tolerate partial shade.

Life History/Ecology: Meadow knapweed is a taprooted perennial that reproduces primarily through seed production, although the plant can also re-sprout from root and crown fragments that have been disturbed. Seeds can germinate anytime throughout the growing season. Plants that germinate in the fall usually overwinter in the rosette growth stage. Meadow knapweed flowers from May through July and disperses seeds as the plant matures. Seeds can remain viable in the soil for several years.

History of Introduction: Meadow knapweed is native to Europe and was introduced into the Pacific Northwest region of North America during the early 1900s. Brown and black knapweeds were introduced into North America through ship ballasts at seaports and as ornamental garden plants. Therefore, meadow knapweed may have been introduced similarly. The plant was cultivated for winter forage in the late 1950s. In North Dakota, meadow knapweed is not being tracked and no observations have been reported.

Effects of Invasion: Meadow knapweed is an aggressive species that reduces biodiversity in native plant communities. The plant can also reduce usable forage production in grass hayfields and pastures.

Control:
Management objectives for meadow knapweed control should involve prevention and early detection. Control measures should eliminate or reduce seed production and vegetative spread of established populations. Seeds of meadow knapweed can remain viable in the soil for several years; therefore, infestations should be monitored for multiple growing seasons to prevent germination of new plants. Combining control methods into an integrated management system will provide the best long-term control of the plant.

Mechanical - Hand pulling or digging can be effective in reducing small infestations of meadow knapweed. The entire root of the plant should be removed to ensure that a new stem does not re-produce from the woody crown. Mowing or cutting plants may suppress infestations, but generally meadow knapweed will continue to flower and produce seeds on shorter plants. Cultivation can reduce meadow knapweed populations, but some plants may re-sprout from the crown or fleshy roots. Cultivation should be repeated to control plants that have re-sprouted.

Chemical - A few herbicides are recommended for meadow knapweed control. Clopyralid plus triclopyr, clopyralid alone, and picloram have all been successful in controlling the plant.

Contact your local county extension agent for recommended use rates, locations, and timing.

Biological - No biological control agents are available for Meadow knapweed control. However, a few biocontrol agents have been released on other knapweeds and have been observed feeding on meadow knapweed. A moth, *Metzneria paucipunctella*, a weevil, *Larinus minutus*, and a fly, *Urophora quadrifasciata*, have all established on meadow knapweed. *Larinus minutus* may be the most promising biocontrol agent for the plant. At this time these control agents may reduce seed production of meadow knapweed, but do not reduce infestations.
Meadow knapweed leaves are more palatable to livestock than other knapweeds, but as the plant matures, nutritional value and palatability decline.

References:

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Meadow knapweed and flower head photograph courtesy of Washington State Noxious Weed Control Board.

Rosette photograph courtesy of King County Noxious Weed Control Board, Washington.