Integrated Weed Management

BRITISH COLUMBIA
Ministry of Agriculture, Food and Fisheries
Plant Industry Branch
Crop Protection Program

Field Scabious – *(Knautia arvensis)*

Field scabious is a tall, tap-rooted perennial in the Teasel Family. This native of Europe has escaped cultivation in British Columbia from its use as a garden ornamental. It is hairy throughout, grows to about 1.3 metres (4 feet) in height, and produces violet-blue to purple flowers on the ends of long, leafless stalks.

In B.C., infestations are found in the following areas: Buck Flats near Houston; Fort Fraser; Alexis Creek area; Heffley Creek north of Kamloops; Greenwood in the Kootenay-Boundary region; and Salmo in the Central Kootenay region. Field scabious is listed as "noxious" in Schedule A – Part II Regional Weeds, B.C. Weed Control Act Regulations.

One plant can produce up to 2000 seeds which may remain viable in the soil for many years. The taprooted woody rootstocks are often branched just below the surface of the soil. Plants establish easily along roadsides, in pastures, meadows and idle areas. Field scabious prefers loose, loam soils that are nutrient rich and moderately moist to dry. This rapidly spreading weed is very competitive with forage stands and native pastures. Infestations result in significant declines in hay production and pasture carrying capacity.

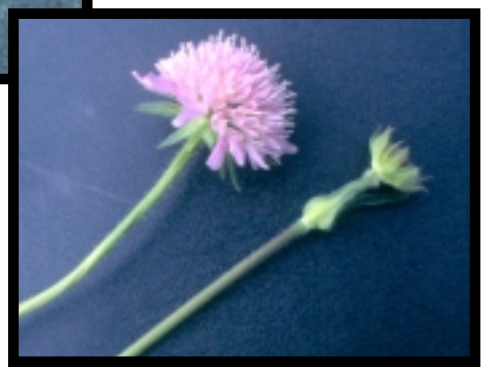
Management Strategies

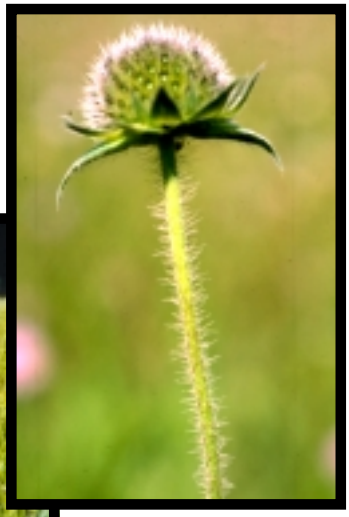
❖ ***Prevention.*** Field scabious has proven to be an exceptionally aggressive species in north-west British Columbia. It is capable of invading undisturbed plant communities. Ensure that pastures are maintained in a competitive condition through moderate grazing, fertilization and variety selection. Seed bare soils to adapted perennial grasses or grass/legume mixtures.

❖ ***Physical.*** Cut or mow **before** seed set. Graze pastures early. Cattle eat young plants but ignore the unpalatable flowering stalks later in the season. Pulling is seldom effective due to the difficulty in removing the long, branched roots. Field scabious is controlled by cultivation. Heavily infested pastures/hayfields can be cultivated and rotated to an annual crop.

❖ ***Chemical.*** Tordon 22K (picloram) at 2.25 L/ha (0.9 L/acre) or Escort (metsulfuron-methyl) at 20 gr/ha (8.0 gr/acre) provide excellent control of field scabious. Research trials in west-central B.C. have shown Tordon 22K is effective when applied either spring or fall. Escort should be applied to actively growing weeds up to the early flower bud stage.

❖ ***Biological.*** No biological control agents are available for field scabious





Pasture area treated with Escort herbicide