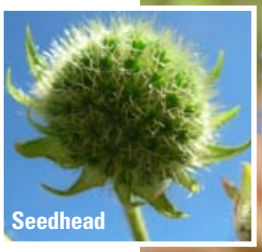
Field Scabious

(Knautia arvensis)

Provincial Designation: Noxious

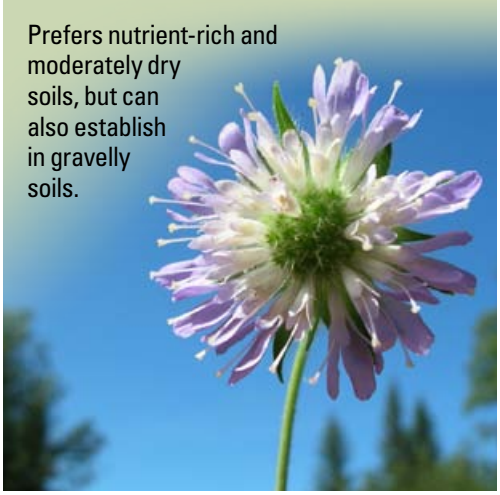


Overview:

Field scabious is native to Europe and was introduced as an ornamental plant. It is a tall perennial that favors grassy areas and develops a deep tap root. The flowers very closely resemble those of another ornamental perennial, Scabiosa (butterfly plant, pincushion flower) but each plant belongs to a different genus.

Habitat:

Prefers nutrient-rich and moderately dry soils, but can also establish in gravelly soils.



Identification:

Stems: Stems are erect, hairy, sparsely branched, and grow up to 1.5 m tall. There can be one or several stems per plant, with little or no branching in the upper stem.

Leaves: Leaves are hairy and the degree of the lobes is highly variable. Young rosettes leaves tend to be lance-shaped, have pointed tips, and the margins can be entire or coarsely toothed – sometimes a few leaves will be pinnately lobed. Stem leaves are opposite, pinnate (deeply lobed) and attached directly to the stem. Lower leaves are 10-25 cm long but become smaller higher on the plant.

Flowers: Flowers are a composite of small, violet-blue to purple florets clustered into a head resembling a single flower up to 4 cm wide, and occur singly at the ends of stems. Occasionally flowering stems arise from leaf axils lower on the stem. Below the flower head is a ring of narrow green bracts. Flowers are hermaphroditic (having both male and female organs).

Seeds: Once flowering is complete the seed head is domed and covered with short, bristly hairs. The fruit is nut like, cylindrical and hairy, 5-6mm in size. Seeds fall around the parent plant. A single plant can produce up to 2000 seeds that remain viable for many years.

Prevention:

Field scabious can invade undisturbed plant communities, and once established is very difficult to control, but maintaining healthy cover can help to prevent against invasion. Any field scabious infestation that has been allowed to go to seed a few times will require many years of diligent control work to eradicate. Since this plant favors grassy areas such as hayfields, it can be widely dispersed in baled forage.

Control:

Grazing: Field scabious is not palatable and seeds can be transported by animal movement. *Invasive plants should never be considered as forage.*

Cultivation: Discing before flowering is effective in crop land situations.

Mechanical: Mowing is effective to prevent seed production but would likely need to be repeated in the season because of re-sprouting. The deep tap root is difficult to remove in anything but loose soils; therefore hand pulling usually results in the stem breaking off at ground level and then re-sprouting occurs. However, any removal of seed is beneficial. Wear long sleeves and gloves as skin contact with the hairy plant causes considerable itching.

Chemical:[1] Picloram, clopyralid, and metsulfuron methyl are effective, mainly on rosettes and young bolts. Another application in the fall is effective for killing re-sprouting from roots. Consult your local Agricultural Fieldman or Certified Pesticide Dispenser for more information.

Biological: None researched to date.

1 Always follow the product labels. The use of pesticides in any manner not published on the label or registered under the *Minor Use of Pesticides* regulation constitutes an offence under both the *Federal Pest Control Products Act and Alberta's Environmental Protection and Enhancement Act.*