NOXIOUS WEEDS ARE EVERYONE’S CONCERN

Noxious weeds compete with pastures and crops, reducing yields substantially. Some noxious weeds are directly poisonous or injurious to man, livestock and wildlife. The losses resulting from noxious weed infestations can be staggering, costing residents of Nebraska millions of dollars due to production losses. This not only directly affects the landowner, but erodes the tax base for all residents in the State of Nebraska.

The business of noxious weed control is everyone’s concern, and noxious weed control benefits everyone. The support of all individuals within the state is needed and vital for the control of noxious weeds within Nebraska. It is the duty of each person who owns land to effectively control noxious weeds on their land.

If you have questions or concerns about noxious weeds, please contact your local county noxious weed control authority or the Nebraska Department of Agriculture.

Material derived from Weeds of the Great Plains, published by the Nebraska Department of Agriculture.

For more information, visit nda.nebraska.gov.

Knapweed (Spotted & Diffuse)

Common Name: Spotted knapweed (Jersey knapweed)
Growth Form: Forb
Life Span: Biennial (occasionally short-lived perennial)
Origin: Eurasia
Flowering Dates: June–September
Reproduction: Seeds
Height: 0.3–1.5 m (1–4.9 ft)
Inflorescences: Heads numerous (5–28 mm in diameter) in cymelike arrangements, terminal and axillary; involucre 8–12 mm tall, 6–10 mm wide; bracts acuminate with a terminal spine, black on the upper one-fourth; outer bracts ovate, appendages decurrent on bract margins, fringed with slender teeth; teeth pectinate; inner bracts oblong; florets 30–40
Flowers: Pink to lavender (sometimes white) corolla; those on the disk margin enlarged (1.5–2.5 cm long), sterile; fertile florets 1.2–1.5 cm long
Fruits: Achenes obovoid (2.5–3.5 mm long, 1–1.5 mm wide), olive green to pale brown to blackish with 4 yellow longitudinal lines; pappus in 1–2 series of many white bristles (1–2 mm long); bristles stiff unequal
Seeds: Small
Leaves: Alternate; simple; basal leaves (10–15 cm long), deeply pinnatifid; lobes linear to oblong, grayish-green to gray, tomentose to without hair, often minutely black gland-dotted, petiolate, withering by flowering; upper leaves reduced, linear, may be entire, black gland-dotted
Stems: Erect to ascending, many, branches ascending, pubescent to glabrate
Underground: Taproot
Where Found: Sandy soils of pastures, meadows, open woodlands, and waste areas. (NE, SD, ND, KS, MN, IA, MO, MT, WY, CO, NM; Canada: Alberta)
Uses and Values: It is unpalatable to livestock and wildlife. Its presence in hay reduces its value.
Poisoning: Prolonged consumption of fresh plant material by horses may cause chewing disease. The toxin has not been identified, but it is suspected to be a sesquiterpene lactone. Some people develop a rash after coming in contact with spotted knapweed.
Similar species: Spotted knapweed resembles diffuse knapweed (Centaurea diffusa Lam.). However, spotted knapweed bracts do not have a prominent terminal spine, and its heads are larger and showier.
Spotted knapweed and diffuse knapweed are considered a major threat to the western rangeland states. Approximately 12,000 acres of Nebraska have become infested, mainly in the north central and isolated infestations occurring in other parts of the state.

Diffuse and spotted knapweed are both pioneer species which readily establish themselves on dry, disturbed soils, such as roadsides. These aggressive plants then invade good condition, native hay, and rangeland. Early spring growth makes them very competitive for soil nutrients and moisture. Evidence also indicates that allelopathic chemicals released by the knapweed inhibits the growth of surrounding vegetation.

Knapweed seed is spread when the mature plants break off at the root stock and are blown by the wind or are caught and dragged by vehicles. Infested hay can spread seed on the roadway while being transported, and on fields where the hay is fed. Individual seeds can be easily attached to, and transported by, passing wildlife. Knapweed plants have a very bitter taste and infested rangeland areas are generally not grazed by cattle or wildlife. Recreational areas have been ruined because infestations of knapweed, with rough stems and spiny seed heads, make it difficult to walk through.

The use of herbicides can be an effective tool to assist in controlling noxious weeds. A person needs to identify the problem and the appropriate herbicide for the plant as well as the site that the plant is growing. If the noxious weed infestation is severe and scattered across a large area, then a broadcast application may be warranted. However, if the noxious weeds are in patches or a few scattered plants here and there, a person may be able to spot treat individual plants or patches. This approach requires less herbicide and has minimal impact on native plants and the environment. Controlling noxious weeds with herbicides in only one tool and should never be the only control option.

Additional information regarding herbicide use can be found through the Nebraska Cooperative Extension EC130 (Guide for Weed, Disease, and Insect Management in Nebraska) or your local county weed control authority at neweed.org.