

## FC Noxious Weed Control Best Management Practices



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# Diffuse knapweed

*Centaurea diffusa*

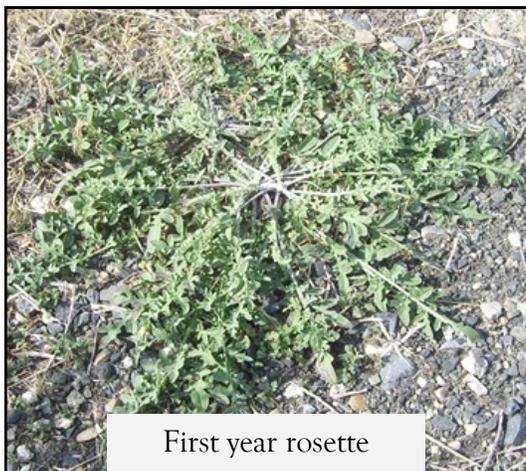
Family: Asteraceae

Class B Noxious Weed  
Control & Contain

## Background Information

**Diffuse knapweed**, a Class B noxious weed in Franklin County, is of the Asteraceae family. It was introduced to the U.S. as a contaminant of alfalfa from the Caspian Sea region of Turkistan. This tap-rooted plant is a biennial or short-lived perennial favoring dry, gravelly sites. A single upright main stem produces several spreading branches. Flowers, generally white (sometimes pink to lavender), occur in clusters at the tips of branches. Flower bracts are tan colored, fringed with sharp spines.

Diffuse knapweed begins as a rosette in its first season of growth, maturing to rounded form. Plants bolt in the second year. Reproduction occurs primarily by seed; a single plant can produce as many as 18,000 seeds which are wind and water dispersed. Diffuse knapweed has been found in a wide range of habitats, thriving in gravel pits, roadsides, vacant lots, railroad tracks and heavily grazed pastures.



First year rosette



Diffuse knapweed has a rounded form

## Impacts

**Diffuse knapweed** competes with desirable plants for nutrients, light and moisture. It produces toxic compounds that prevent other plants from growing nearby. The spiny bracts will injure the mouth and digestive tract of grazing animals. As diffuse knapweed breaks away from the taproot it tumbles in the wind dispersing seeds from the small opening at the top of the seedhead. Seeds can ride on the frames of vehicles and colonize roads. Recreational and maintenance vehicles have significantly contributed to its spread on roadsides. Seeds can also be transported in waterways and colonize riverbanks.

## Key Identifying Traits

- ◆ Basal leaves are short-stalked and divided into lobes on both sides of the vein.
- ◆ Leaves are grayish green, alternate, hairy and bitter.
- ◆ Flowers are white (sometimes pink or lavender).
- ◆ Bracts surrounding flowers are tipped with slender spines.
- ◆ Has the most rounded growth habit of all the knapweeds, growing to 1-3 feet tall and wide.



Close-up of flower: Notice the spines on the bract.

## Biology and Ecology

- ◆ Biennial or short-lived perennial with a long tap root.
- ◆ Reproduces primarily by seed, but can rejuvenate from root crown.
- ◆ Flowers from early July to September.
- ◆ A single plant can produce 18,000 seeds which are dispersed by a tumbleweed-like action.
- ◆ Does not grow well in shade or poorly drained soils.



Larval feeding of *Cyphocleonus achates* on the root system prevents the transport of water and nutrients.

## Control Measures

**Prevention:** Early detection is vital to prevent invasion. Beware of fill dirt, hay, and seed from outside your area.

**Biological:** Seed head and root feeding weevils are available.

**Cultural:** Healthy competitive vegetation reduces open spaces which lessens the chance for invasion. Growing a healthy, vigorous stand of desirable vegetation will compete with diffuse knapweed.

**Mechanical:** Plants can be dug up or hand pulled for infestations of fewer than a dozen plants.

**Chemical:** Early spring or fall applications of pre-emergent herbicides containing aminopyralid (i.e. Milestone, Chaparral, or Opensight) will provide extended control when applied according to the label. Post-emergent herbicides containing 2, 4-D or 2,4-D + Dicamba (i.e. Weedmaster) can be applied at the spring rosette growth stage prior to bolting or in the fall.

**ALWAYS FOLLOW LABEL INSTRUCTIONS, THE LABEL IS THE LAW**

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