



Noxious and Invasive Weed Program - <http://www.mda.state.mn.us/weedcontrol>

## Prohibited Noxious Weeds

### Canada Thistle – *Cirsium arvense* (L.) Scop.

**Noxious Weed Classification** – Canada thistle is listed as a Prohibited – Control noxious weed in Minnesota. Efforts must be made to prevent seed maturation and dispersal of plants into new areas. Failure to comply with the Minnesota Noxious Weed Law (Minnesota Statutes 18.75 -18.91) may result in an enforcement action by the county or local municipality.

**Origin** – Native to Europe and Asia



**Impacts** – Canada thistle aggressively invades a wide variety of habitats including rights-of-ways, pastures, row crops, natural areas, and forest clearings. Once established, this invader reduces high quality forages for grazing livestock and wildlife, reduces

biological diversity for native landscapes, and complicates reforestation and landscape restoration efforts. Management of this aggressive invader statewide costs cities, counties, townships, and state agencies hundreds of thousands of dollars annually.

**Description** – Perennial plant with a vigorous root system growing from 2 – 5 feet tall. Plants first emerge as small rosettes and eventually bolt, producing branching erect stems. Leaves alternate along the stems and are lance-shaped, irregularly lobed, attached at the stem and contain finely toothed margins. Purple, pink, and occasionally white flowers are born at the end of stems in clusters. Flowers bloom in Minnesota from June – September. Flower buds are ½ wide by ¾ - 1 inch long and are tear-dropped shaped and lack spines. Flowers eventually produce many seeds attached to white feathery structures commonly referred to as “fluff”. Fluff is evident after flower maturation – mid-July – October. Plants reproduce by both seeds and roots.



**Habitat** – Canada thistle can be found growing in a wide range of habitats. It typically infests new areas after some sort of soil/landscape disturbance. Most commonly this plant is found along roadsides, waste areas, disturbed natural areas, agricultural



fields, non-maintained lots, industrial sites, and non-maintained gravel pits.

**Distribution in Minnesota** – Canada thistle is found in all 87 counties of the state.

**Control and Management** – Depending on the size and level of infestation, Canada thistle can be controlled by hand-cutting, mowing, selective grazing (goats), and prescribed burning. However, these techniques alone rarely eliminate Canada thistle populations. Because it is a perennial species, the roots must be entirely killed to prevent the plant from continued resprouting and growth. Foliar Herbicides that mobilize their active ingredients into the root system of the plant have been shown to be the most effective management for killing large stands of Canada thistle. Mowing (preventing flowering and seed development) and hand-cutting can be implemented on smaller stands prior to flowering in early July to prevent the plant from producing seeds but these methods require persistent follow-up throughout the growing season to suppress any regrowth.



If using herbicides, check with your local University of Minnesota extension agent, co-op, or landscape care expert for assistance and recommendations. There are several businesses throughout MN with state-certified herbicide applicators that can be hired to perform chemical applications for Canada thistle and other noxious weed species. Spring and late fall herbicide applications have been shown to produce good overall management results, especially if they are continued for several years until either the seed bank is

exhausted or other vegetation begins to establish and crowds-out Canada thistle. Management plans that combine spring and fall herbicide applications with pre flower mowing in early summer, and persistent annual follow-up for several years after initial treatment have been shown to provide the best long-term control of this plant. If applicable, spring or fall selective burning and summer grazing by goats or sheep can also add to successful long-term control.

**Biological Control** – Several biological control agents are commercially available for Canada thistle. However, the results of biological control on Canada thistle have been variable and more information is needed before it can be considered a viable means of noxious weed control in Minnesota.

### **PERSISTENCE IS THE KEY!**

*Canada thistle is an aggressive perennial that is well developed to invade new areas and outcompete other vegetation types. It is a prolific seed producer and also has an aggressive root system that continually produces new shoots. Managing this species takes a strong commitment once it becomes established.*