

THE PURDUE LANDSCAPE REPORT

What the Fluff?!

By: Karen Mitchell, mitcheka@purdue.edu

As summer comes to a close, plants are rapidly releasing seeds and the most noticeable are the flying fluffy type. Thistles, asters, and milkweed are just a few of the summer-flowering plants that depend on the wind to disperse their seeds, sometimes carrying them miles away to potentially suitable locations, though seeds typically land with a few meters of the mother plant. This may not be a concern if it's a desirable plant, but can become extremely problematic when that seed comes from Canada Thistle (*Cirsium arvense*) (Fig. 1).



Figure 1. Canada thistle (*Cirsium arvense*), growing amongst common ivy (*Hedera helix*), produces a fluffy seed that is dispersed by wind.

Canada thistle is found on the list of Indiana Noxious Weeds (IC 15-16-7-2), which mandates that landowners take necessary steps to control and contain the spread of this highly invasive species. Formal enforcement of this Indiana Code falls to Township Trustees, though weed control is a responsibility that is often overlooked. Landowners and homeowners shouldn't wait for a notice, or knock at the door, from a Township Trustee to begin controlling Canada thistle. It's listed as a noxious weed for good reason.

Canada thistle is a perennial plant that can reproduce from seed or rhizomes making it difficult to control and contain. Each plant can produce thousands of wind-blown seeds that may remain viable for up to 20 years in the soil. Rhizomes are horizontal underground stems that can grow several feet and put out new shoots (Fig. 2). To add insult to injury, if a rhizome is cut or tilled, a separate plant may grow from each piece of rhizome.



Figure 2. Canada thistle (*Cirsium arvense*) reproduces by growing horizontal underground stems called rhizomes. Rhizomes can send up new shoots several feet from the mother plant.

Mechanical and cultural control options for Canada thistle are limited and may reduce plant density, but are not effective at eradicating large, established populations in a landscape. A new population, without an established root system, may be controlled with frequent mowing to deplete food reserves and prevent seed production. Small, isolated populations may be controlled with hand-pulling, but this will need to be repeated every few weeks.

Chemical control options include pre- and post-emergent herbicides and, in many cases, applications of both types are needed for complete eradication. A pre-emergent herbicide, with an active ingredient of dichlobenil, is effective at preventing seed from germinating, but will not control established plants. A post-emergent herbicide with the active ingredient of clopyralid is the most effective option for home gardeners. Clopyralid is a selective herbicide for broadleaf weeds, but most vegetable and ornamental plants are susceptible. Precautions should be taken to avoid off-target damage. Read and understand the herbicide label before use. The label is the law.

Regardless of the method used, complete control of an established Canada thistle population will take persistence over

multiple seasons. If the fluffy seed is beginning to fly from your thistle patch, it will likely take many more seasons to rid the garden of this pest, but it is possible. To win the battle against Canada thistle, it takes serious grit and an effective herbicide, or a good realtor.

Want to learn more? Check out these resources:

Indiana DNR: Terrestrial Invasive Species -

<https://www.in.gov/dnr/rules-and-regulations/invasive-species/terrestrial-invasive-species-plants/>

Understanding and Controlling Thistle in the Nursery and Landscape -

<https://www.purduelandscapereport.org/article/understanding-and-controlling-thistle-in-the-nursery-and-landscape/>

Control of Canada Thistle in CRP and Other Noncrop Acreage -

<https://www.extension.purdue.edu/extmedia/FNR/FNR-436-W.pdf>

It is the policy of the Purdue University that all persons have equal opportunity and access to its educational programs, services, activities, and facilities without regard to race, religion, color, sex, age, national origin or ancestry, marital status, parental status, sexual orientation, disability or status as a veteran. Purdue is an Affirmative Action Institution. This material may be available in alternative formats. 1-888-EXT-INFO Disclaimer: Reference to products in this publication is not intended to be an endorsement to the exclusion of others which may have similar uses. Any person using products listed in this publication assumes full responsibility for their use in accordance with current directions of the manufacturer.

Purdue Landscape Report © Purdue University - www.purduelandscapereport.org