

## Common Weeds of Foothills County

This guide has been made to help educate county landowners of some of the invasive weeds that are commonly found in our area. Some are more widespread than others, but they all pose a serious threat to agricultural production and ecological biodiversity. Some of these weeds such as Toadflax, Leafy Spurge and Canada Thistle have been documented to have been growing as far back as the 1940's. Invasive plants (weeds) displace desirable native and agronomic plants by competing with them for nutrients, water and sunlight. Some can inhibit the growth of nearby plants by producing chemicals in their roots and tissues (allelopathy). Others are poisonous to livestock, pets and humans or cause skin irritation and burns.

The hard work of the Agricultural Service Board and county landowners have limited the spread of these aggressive weeds but every year new infestations are found. The Alberta *Weed Control Act* designates weeds of concern as either Noxious or Prohibited Noxious. As a landowner it is your responsibility to **Control** (stop the growth and spread) of **Noxious Weeds** and **Destroy** (kill all growing parts of the plant) any **Prohibited Noxious** weeds found on your property. Contravention of the *Weed Control Act* can result in the county issuing landowners a **Weed Notice** that will specify the control actions that need to be taken in a specified timeframe. Failure to comply with a Notice will result the county hiring a contractor to complete the control measures with all costs being the responsibility of the landowner.

If you require any assistance in the control or identification or to report a weed concern, please contact Foothills County Agricultural Services (403-652-2423).

For more information on these and many other invasive plants visit the Alberta Invasive Species Council website [Alberta Invasive Species Council | Not-For-Profit Society | Alberta \(abinvasives.ca\)](http://Alberta Invasive Species Council | Not-For-Profit Society | Alberta (abinvasives.ca).).

**Spotted Knapweed** (*Centaurea maculosa*)

**Provincial Designation:** Prohibited Noxious

**Status in Foothills County:** Localized Infestations

Spotted knapweed is one of the most destructive invasive species in North America. Introduced from Eurasia in the 19<sup>th</sup> century, the economic impact of Spotted Knapweed is estimated to be in the 100's of millions of dollars. Spotted Knapweed can be identified by its deeply lobed grey-green leaves and purple flowers. Plants can grow from 10cm to 150cm. First year plants will establish a rosette (low growing non-flowering plant) and form flowers and seeds in subsequent years. Plants are perennial and can live up to 9 years. Once established Spotted Knapweed can form near monoculture stands. This weed displaces native and agronomic plants by out-competing them for water and nutrients. It also produces chemicals that can inhibit the growth of nearby plants. Spotted Knapweed reproduces via seed and large plants can produce over 100,000 seeds in a growing season. Once established control is very difficult as seeds can remain viable in the soil for more than 8 years. Small patches can be controlled by diligent hand picking, making sure to remove as much of the taproot as possible. Larger infestations will need to be controlled using herbicide or in combination with picking if the plants have reached the flowering stage. Mowing is not an effective method of control as the plants will produce flowers shortly after being cut. Photo's courtesy of the Alberta Invasive Species Council.





**Wild Caraway (*Carum carvi*)**

**Designation:** Locally Noxious

**Status in Foothills County:** Widespread in the western areas of the county

Wild caraway is an escaped spice crop that can aggressively invade pasture and hay lands. The seeds are often found as a flavoring in rye breads and Eastern European dishes. Wild Caraway is commonly found in the western part of the county where it prefers nutrient rich soils and can grow in moderate shade. Caraway is commonly found infesting pastures, hay land, roadsides and aspen groves.

A member for the carrot family it bears a strong resemblance to the common carrot and could also be confused with native Yarrow. It is a biennial plant and the small, feather like leaves are often hard to spot in its first year of growth. During its

the second year of growth caraway plants will elongate and form a stem between 30cm and 90cm tall. The small white flowers are found in a cluster resembling an umbrella (umbel). Control of caraway is difficult. Hard to spot the first year it is an earlier flowerer in its second year and there is only a short time for control while the plant is easy to see but not too far into flowering to produce seed. Its affinity to grow in legume mix hay stands also increases the complexity of control and limits herbicide options. Hand pulling can be effective if done in loose, moist soils but often the top of the plant will break off before you are able to remove the taproot. If hand pulling wear gloves and be certain of identification as caraway does have a resemblance to the highly toxic Water Hemlock. The best control for caraway and all other weeds is early detection and action. For more information on Wild Caraway see the factsheet from the Alberta Invasive Species Council [UR\\_FS-WildCaraway.pdf \(secureservercdn.net\)](https://secureservercdn.net/UR_FS-WildCaraway.pdf) or contact the Agricultural Services Department at 403-652-2423. Photo courtesy of the Alberta Invasive Species Council.





**Hoary Cress** (*Lepidium appelianum*, *Lepidium draba*, *Lepidium chalepense*)

**Provincial Designation:** Noxious

**Status in Foothills County:** Present in a few small, controlled patches

Hoary Cress is a deep-rooted member of the mustard family (*Brassicaceae*). There are 3 different species of Hoary Cress that are listed as Noxious in the Alberta

Weed Control Act: globe potted, lens-potted and heart-podded. The main difference between species are the shape of the seed pod but the vegetative and invasive characteristics are shared between the species. Hoary Cress is frequently confused with other common weeds of the mustard family, stinkweed (*Thlaspi arvense*) and Common Pepperweed (*Lepidium densiflorum*). These weeds are annuals and are mainly found in disturbed areas and cultivated fields, Hoary Cress differs by being a long living perennial that can form dense stands in healthy pasture and rangeland. Hoary Cress can be identified by its off-white/ cream colored flower heads and blue-green arrow shaped leaves covered in small hairs. It will mainly be found growing in pastures and roadsides where it prefers full sun and well drained soils. Hoary Cress is one of the earliest flowering noxious weeds and can be found blooming by late May. Once established control of Hoary Cress is difficult due to its deep root system. The plant can reproduce via seed and its creeping root system. Mechanical control (mowing/ picking) is not very effective as the plant will produce new shoots from its root system. Herbicide application is the preferred method of control and there are products registered for the control of Hoary Cress. Photo's courtesy of the Alberta Invasive Species Council. For more information, please the fact sheet from the Alberta Invasive Species Council or contact the Agricultural Services Department at 403-652-2423. Photo's courtesy of Alberta Invasive Species Council.







**Scentless Chamomile** (*Tripleurospermum inodorum*)

**Provincial Designation:** Noxious

**Status In Foothills County:** Mainly found in industrial areas and livestock corrals

Scentless Chamomile is a highly invasive weed commonly found in industrial areas, headlands, corrals and farmyards and any other location where the soil has been disturbed. One of the most prolific seed producers a single large plant can produce over 500,000 seeds in a single growing season. Scentless chamomile is also highly adaptable and can be found growing from 10cm to over 100cm tall. Identification can also be difficult as the flowers bear a strong resemblance to another common invasive Ox-eye Daisy. Scentless chamomile can be identified by its finely divided, feather like leaves and daisy like flowers made up of white petals with a yellow center disk. This weed is commonly spread via contaminated seed or feed and can also be transported on machinery and moving water. Hand picking is a very effective method of control as is herbicide if applied prior to the plant flowering. Read, understand and follow the pesticide label when applying

any herbicide. Mowing is not effective as the plant will still produce flowers beneath the cut point. Pulled plants should be bagged to prevent seed dispersal and burned or taken to the regional landfill. Photo's courtesy of the Alberta Invasive Species Council.









**Leafy Spurge** (*Euphorbia esula*)

**Provincial Designation:** Noxious

**Status in Foothills County:** Widespread, found in all divisions

Leafy Spurge is a deep-rooted perennial and aggressive invader that spreads by seed and its creeping root system. The roots of leafy spurge can grow over 20 feet deep into the soil making control of this invasive very difficult and costly. It is well adapted to most soil conditions and can be found growing in all areas of the county. Leafy spurge is usually found growing in clusters formed of plants from 60cm to 100cm tall. It can be identified by its narrow, waxy leaves and distinctive yellow-green flowers. The vegetative parts of the plant are easily confused with another invasive Yellow Toadflax but leafy spurge can be distinguished by a white milky latex sap being present if the stem is broken open. Leafy Spurge is very competitive and can take over healthy plant communities. Herbicide is the preferred method of control and mowing or picking are not effective as the plant



will regrow from its extensive root system. Read, understand and follow the pesticide label when applying any herbicide. Leafy spurge flea beetles are registered for control of leafy spurge as a biological control agent. Early detection and management are very important in controlling leafy spurge infestations. Goats are also being used for leafy spurge control. Photo's courtesy of the Alberta Invasive Species Council.





**Common Burdock (*Arctium minus*)**

**Provincial Designation:** Noxious

**Status in Foothills County:** Widespread but contained in small patches

Most county residents have probably encountered the seed heads of Common Burdock at some point. The bristly balls attach themselves to clothing, shoelaces and fur of pets and livestock. Common Burdock is a biennial plant. In its first year of growth the plant will grow low the ground producing large, broad leaves resembling a rhubarb plant. The second year of growth Common Burdock will develop a thick stem up to 3m tall and flowers that will eventually turn into the burrs that the plant is known for. Besides its nuisance seed heads, its large leaves can displace native and agricultural vegetation by shading out surrounding plants and competing for nutrients and moisture. Common Burdock is usually found in riparian areas, perennial hay fields and industrial areas. It is also frequently found in aspen and willow stands, further complicating control through either chemical or mechanical means. Herbicide application can be very effective if done at the right times. The best control will come from spraying the first-year rosette or

early second year plant. Once the stem starts to elongate herbicide will still kill the top growth of the plant, but regrowth may occur from the large taproot. Read, understand and follow the pesticide label when applying any herbicide. Hand pulling is also effective but the large taproot can make removal very difficult. If found after the plant has made its seeds it is still worthwhile to cut and bag the plants to reduce the seedbank and the risk of animals encountering the burrs. Cattle and sheep taken to auction can be severely discounted if they show up to the sale covered in burrs. Photo's courtesy of Alberta Invasive Species Council.







## **Yellow Toadflax (*Linaria vulgaris*)**

**Provincial Designation:** Noxious

**Status in Foothills County:** Localized infestations

Yellow toadflax is a deep-rooted perennial weed that spreads through both its seeds and creeping root system. A member of the snapdragon family it was originally introduced as an ornamental and has since become a prolific invader of pastures, riverbanks, disturbed areas and rangeland. The long, lance-shaped leaves of Yellow Toadflax is easily confused with another invasive Leafy Spurge. An easy way to identify the two plants is by breaking open the stems and looking for a distinctive white milky latex. Leafy Spurge will contain this milky substance while Yellow Toadflax will not. The yellow flowers of toadflax are also very distinctive as the petals form a long spur on the bottom of the flower. The flowering period of Toadflax will very greatly depending on the climatic conditions of the growing season. In wet years plants will flower in mid to late July while in drought conditions plants can flower into September. Control of Toadflax is very difficult once patches of the plant become established. Mowing is not an effective method of control but can compliment herbicide application as it reduces energy stores in the roots. Control through hand pulling can eliminate seed production but due to the extensive creeping root system, plants will re-grow. Herbicide application is the most effective method of control. Read, understand and follow the pesticide label when applying any herbicide. Photo's courtesy of the Alberta Invasive Species Council.







## **Canada Thistle (*Cirsium arvense*)**

**Provincial Designation:** Noxious

**Status in Foothills County:** Widespread

Canada Thistle was one of the first invasive species introduced to Alberta and has been provincially regulated since 1907. Despite the efforts of provincial and local governments it is now one of the most widespread and destructive invasive species found in our province. Canada Thistle is able to grow in a wide variety of soil and climactic areas. The most severe infestations are usually found growing along field margins, in overgrazed pastures and other areas with little competition from other plant species. It can also invade and outcompete healthy plant communities such as riparian areas and native rangelands. While most are familiar with the identification of this prolific weed it is easily identified by its bright purple flowers and dark green, lance shaped leaves and sharp spines. Canada Thistle spreads mainly through its extensive root system that can extend into the soil up to 20 feet deep and spread horizontally sending up new shoots to form dense colonies. Thistle can also spread via seed and the pappus (feathery tuft on the seed) helps the seeds be carried by wind into neighbouring properties establishing new infestations. Control of Canada Thistle is difficult due to the large root system. Herbicide application is the most effective method of control. Application of herbicide in large established patches will be most effective when spraying is done in the fall after the plants have set seed and are actively translocating nutrients into their roots. Always read, understand and follow the label when applying any pesticide. Photo's courtesy Alberta Invasive Species Council.





Small Green Majesty Tree Queen  
in garden of Alberta



**Oxeye Daisy** (*Leucanthemum vulgare*)

**Provincial Designation:** Noxious

**Status in Foothills County:** Few isolated patches, often found growing in flower beds and gardens

Oxeye Daisy is an escaped ornamental that is often mis-identified as a native flower due to its aesthetic white petaled flowers. These white flowers are also easily confused with another invasive, Scentless Chamomile and the ornamental Shasta Daisy. Oxeye are distinguished by their leaves and growth pattern. The leaves are waxy and can be spoon shaped or lance-shaped with toothed edges. The plants will usually be found growing to around 60cm tall with numerous stems coming from a central crown. Oxeye Daisy is capable of spreading both through seeds that can be transported by animals and off-highway vehicles as well as a through its creeping root system. Capable of growing in a wide variety of habitats, daisy can be found growing in all areas of the county although it is most common and problematic growing in the foothill and mountainous areas thriving under the forest canopy and in open meadows. Cattle avoid Oxeye Daisy, allowing it to take over pastures and greatly reducing animal carrying capacity. Control of

Oxeye Daisy is most effective through herbicide application, especially if spraying occurs prior to or in early flowering. Hand pulling can reduce the seed load but will need to be repeated multiple times due to the creeping root system. Always read, understand and follow the label when applying any pesticide. Photo's courtesy of the Alberta Invasive Species Council.









**Field Scabious (*Knautia arvensis*)**

**Provincial Designation:** Noxious

**Status in Foothills County:** Growing problem in the western parts of the county. Often found in hay fields and industrial areas.

Field Scabious is an escaped ornamental that now invades hay fields and pastures, competing with desirable vegetation and lowering yields. This perennial weed is identifiable by its deeply lobed, hairy leaves and pale purple flowers. Plants can grow to 5 feet tall with 1 flower head at the top of each stem. Due to its ability to grow in undisturbed, healthy plant communities Field Scabious is quick to establish in both native and tame pastures and hay land. Control of Field Scabious is difficult once established as a single plant can produce over 2000 seeds that remain viable in the soil for years. Hand pulling of plants is very difficult due to

the large tap root and relatively weak stem. Attempting to pull Field Scabious usually results in the stem breaking off above the root crown and the plant resprouting. Hand pulling can be effective at reducing the seed load if infestations are small and should be followed by a herbicide application. Chemical treatments are effective, and spraying should be done before the plants flower (usually late June to early July). Photo's courtesy of the Alberta Invasive Species Council.

