

Invasive Plants in Alberta

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Organic Systems

Land owners and occupiers are responsible for controlling noxious weeds and destroying prohibited noxious weeds under the *Alberta Weed Control Act*. Listed plants in the Act cause problems for the environment, health or economy. Know your responsibilities under the Act. Regardless of where plants are located, prevention is always the most effective approach in dealing with invasive plants.

What You Need to Know

What is the problem?

- Weeds are the most important limiting factor for many organic crop producers.
- Very limited chemical options exist for weed control in organic production.
- Relying on tillage for weed control can increase erosion and loss of organic matter in soil.

For a product to be labelled “organic” in Canada, it must be produced under the Canadian Organic Standard, and the producer must be certified by a certification body accredited by the Canadian Food Inspection Agency.

Only certain products on a list of “permitted substances” are allowed to be used in organic production, and synthetic herbicides are not permitted.

Species to watch out for

Weed species that are significant problems in organic production systems in Alberta and are listed in the *Alberta Weed Control Act*:

- Canada thistle (*Cirsium arvense*)
- leafy spurge (*Euphorbia esula*)
- ox-eye daisy (*Leucanthemum vulgare*)
- common tansy (*Tanacetum vulgare*)
- scentless chamomile (*Tripleurospermum inodorum*)
- yellow and Dalmatian toadflax (*Linaria vulgaris* and *L. dalmatica*)
- perennial sow-thistle (*Sonchus arvensis*)

What you can do

Crop Production

- Maintaining a vigorous, competitive crop by implementing a high standard of cropping practices will help suppress weeds.
- Variety selection plays a big role in success; for example, in spring wheat, select taller varieties with fast, early season growth, early maturity and high tillering.



Canada thistle (*Cirsium arvense*)

- Judicious use of tillage can also be an important weed management tool.
- Many species produce adequate cover crops for weed suppression; grass-legume mixes have proven to be the most effective.

Animal Production

- Use rotational grazing to allow pastures to recover and further suppress weeds via competition.
- Multi-species grazing (for example, sheep and cattle together) can keep pastures in better condition and reduce weed populations.
- Grazing can directly control some weeds such as leafy spurge (sheep and goats) and Canada thistle (cattle). Graze in spring while weeds are still tender and before they flower.
- Biological control insects are available for some weed species such as leafy spurge, scentless chamomile and hound's-tongue. Check with Alberta Agriculture for information on how to obtain these insects.



Common tansy (*Tanacetum vulgare*)



Leafy spurge (*Euphorbia esula*)

Horticulture/Garden

- Mulching between rows with hay, straw, wood chips, or black plastic can suppress weeds in vegetable crops (polyvinyl chloride sheeting is not allowed.) Be careful not to introduce weed seeds if using hay or straw for mulching.
- Delayed seeding of crops can allow a weed flush to emerge and be controlled by pre-seeding tillage.
- While mowing can prevent seed production, repeated mowing over several years may be needed to control hard-to-kill perennial weeds for the long term.

General principles and resources

- Land owners and occupiers are responsible for controlling noxious weeds and destroying prohibited noxious weeds. Know your responsibilities under the *Alberta Weed Control Act*.
- Learn to identify invasive plants.
- Be alert for invasive plants and respond early when they are found.
- Reduce the introduction of invasive plants as well as the reproduction and movement of their seeds and plant parts.
- Use effective, appropriate methods to control invasive plants. Alberta Agriculture and Rural Development, Environment and Sustainable Resource Development, municipal Agricultural Fieldmen and urban park departments can provide advice on control methods.
- Always follow label instructions when applying any herbicide, even those registered under organic use.

Alberta Invasive Plant Identification Guide (from Wheatland County)

www.wheatlandcounty.ca/DocumentCenter/View/12

Alberta Invasive Species Council factsheets

www.abinvasives.ca

Alberta Weed Control Act and Regulations

www.agriculture.alberta.ca/weedcontrol-act

Alberta Weed Monitoring Network

www.agriculture.alberta.ca/weeds

Learn More

Find out more on this topic and access these additional resources at the following web page:
www.agriculture.alberta.ca/invasive-weeds

Organic Alberta

Organic Agriculture Centre of Canada

**Organic Products: Canadian Food
Inspection Agency**

Permitted Substances Lists

**Cover Crops for Weed Management in
Organic Systems**

**Organic Crop Production: Weed
Management**

**Quackgrass Control Methods In Organic
Agriculture**

The Urban Farmer



Ox-eye daisy (*Leucanthemum vulgare*)



Scentless chamomile (*Tripleurospermum inodorum*)



Perennial sow-thistle (*Sonchus arvensis*)



Dalmation toadflax (*Linaria dalmatica*)



Yellow toadflax (*Linaria vulgaris*)