

## FARM PRACTICES

## WEED CONTROL

### Description

Farmers control weeds to increase plant growth, crop yield and quality and to reduce habitat for insect and disease vectors. They may also control weeds to prevent a build-up of weed seeds in the soil, to keep their farms safe (from wild fire, etc) and to reduce grain dockage and livestock losses resulting from poisonous plants.

In addition, farmers are obligated under the provincial *Weed Control Act* to control noxious weeds. Province-wide noxious designations apply to 21 plant species in B.C. Another 24 plant species are designated noxious within specific regions. Legislated noxious weeds must be controlled to prevent the injurious distribution of seeds.

### Activities and Operations

#### Weed Control Goals

On-farm weed control programs are designed to accomplish the suppression of weed growth, the prevention or suppression of weed seed production, the reduction of weed seed reserves in the soil, the prevention or reduction of weed spread and noxious weed eradication.

Practices that help prevent weeds from becoming a problem include sowing high quality seed that is low in weed seed content, cleaning farm machinery, cleaning animals before moving them, using only well rotted manure for soil amendment purposes, and using Total Farm Weed Control (cleaning fence lines, irrigation ditches, farm roads, stockyards and any other on-farm sources of weed seeds).

See Farm Practice: Farmstead Maintenance

#### Integrated Weed Management

Integrated Weed Management is a balanced approach that includes:

- managing the resource to prevent weeds
- knowledge and proper identification of weeds
- inventory, mapping and monitoring of weed populations and damage
- making control decisions based on knowledge of potential damage, cost of control and environmental impact of the control decision
- using control strategies that may include a combination of methods to reduce weed population to acceptable levels while evaluating the effectiveness and effects of management decisions

#### Weed Control Methods - Biological

Biological weed control involves the use of natural agents such as insects, nematodes, fungi, or viruses. Agents used for this purpose undergo rigorous testing to ensure specificity. Classical biocontrol agents (usually specialized insects) are not released in BC until approval has been obtained from Agriculture and Agri-Food Canada and the US Department of Agriculture. As a further precaution, agents are not introduced without the approval of the BC Plant Protection Advisory Council.

## Weed Control Methods - Chemical

Farmers use herbicides to kill or suppress undesirable vegetation. All herbicides used must be federally registered. Farmers must follow label directions and obey all pesticide laws.

## Weed Control Methods - Cultural

Cultural practices can be used to suppress weeds and give a competitive advantage to the crop being grown. Seedbed preparation techniques, seeding rates, variety selection, drainage, fertilization, the use of cover crops and crop rotation are among the cultural practices used.

## Weed Control Methods - Physical

**Burning** – Fire can be used to destroy weed seeds and mature weeds. Flaming machines may be used to kill weed topgrowth between crop rows.

**Cultivation** – Tillage kills weeds by burying the entire weed; depleting weed food reserves; exposing underground propagules to frost or desiccation and encouraging the rotting of underground propagules. Cultivation can be done any time during the growing season including pre-seeding, in-crop and post-harvest.

See Farm Practice: [Farmstead Maintenance](#)  
[Mobile Equipment](#)

**Grazing** – Horses, sheep, goats, hogs and cattle can be used to control weeds.

**Hand Weeding** – can be used for small plots or areas.

**Mowing** – Tractor-operated mowing equipment, gas-powered handheld mowers, weed eaters, etc. are used to prevent weed seed production and deplete underground food reserves.

**Mulching** – Mulches such as clean straw, hay or manure, tar paper, sawdust and dark colored plastics can be used to control weeds.

Machinery is not permitted in watercourses frequented by fish unless approved by DFO.

See Farm Practice: [Cultivation](#)  
[Mobile Equipment](#)

## Legislation

Information on federal and provincial legislation can be found in Appendices B and C. Acts, regulations and bylaws that regulate or may affect weed control practices include, but are not limited to, the following:

### Federal

*Fisheries Act* – protects fish and fish habitat

*Plant Protection Act* – prevents the spread of injurious pests by providing for their control

### Provincial

*Weed Control Act* – places the responsibility for control of noxious weeds on the occupiers of land

### Local Government

Local governments can enact *Weed Control Bylaws* that implement the *Weed Control Act*.

## Publications

Publications that provide further information on weed control include, but are not limited to, the following (refer to Appendix D for details):

*Biological Weed Control in B.C.*

*Crop Production and Management Guides* – for various commodities

*Field Guide to Noxious & Other Selected Weeds of British Columbia*

*Integrated Weed Management: An Introductory Manual*

*Weed Monographs* (detailing 34 weed species)