

IAP Reference Guide - Part I

Module 1.6: Treatment Methods Overview

In this module, you will learn:

- How to differentiate between the various treatment methods.

Understanding Treatment Methods

If prevention measures are not successful and invasive plants begin to establish on new sites, the plants must be treated, preferably prior to them setting seed. There are a number of treatments which can be applied to ensure the successful extirpation/treatment of these plants. The treatment selected and timing of implementation depends on various factors including the invasive alien plant species and location in the province.

This guide will discuss the three methods of treatment currently in practice in BC:



Mechanical



Chemical



Biological



This guide has selected the term “mechanical” to refer to all methods of treatment that are not defined as chemical and biological methods. You will notice that this is consistent with the use of the term “mechanical” in the IAP Program – Data Entry which is discussed in Part II of this guide.



Mechanical Treatment Methods

Mechanical treatment of invasive plants employs various techniques to:

- physically disturb invasive plants; or,
- to interrupt their reproduction by depleting root reserves through repeated cutting of the plant.

Mechanical control includes, for example, the mowing, hand pulling and cutting of invasive plants.

Mechanical control is discussed in more detail in Module 1.7 of this guide.



Chemical Treatment Methods

Treating invasive plants with chemicals (herbicides) can be very effective in some circumstances. Herbicides are used for spot treatments of invasive plants in British Columbia. The herbicide selected should depend on the:

- target invasive alien plant species; and,
- environmental and site factors.

Application of herbicides is governed by the Ministry of Water, Land, and Air Protection's *Integrated Pest Management Act*. The use of herbicides will be discussed in more detail in Module 1.8 of this guide.



Biological Treatment Methods

Another method commonly used to treat invasive plants is that of biological treatment. Biological control is the use of an invasive plant's natural enemies (i.e. insects and pathogens) to reduce its population below a desired level. There are two approaches to biological control:

- **Inundative** – this method uses mass application of an organism to attempt to eliminate an invasive alien plant from an area. It does not deal with the residual seed bank in the soil or prevent the invasive alien plant from establishing from another source at a later date.
- **Classical** – this method uses the invasive alien plant's natural enemies to establish a long-term balance between the biological control agent and the invasive alien plant.

The use of biological treatment methods will be discussed in greater detail in Module 1.9 of this guide.