

# TACKLING Knotweeds

Invasive species have significant impacts on the environment, human health, infrastructure and the economy in the Metro Vancouver region.

Knotweeds are aggressive plants that were introduced from regions in Asia. They are some of the most destructive invasive plants in the world and are considered a high priority to manage. There are four species of knotweeds in the Metro Vancouver region:

- Japanese knotweed (*Reynoutria japonica*)
- Bohemian knotweed (*Reynoutria x bohemica*)
- Giant knotweed (*Reynoutria sachalinensis*)
- Himalayan knotweed (*Koenigia polystachya*)

## IMPACTS

Knotweeds have significant social, economic and environmental impacts. They compete with native plants, destroying habitat. Their roots cause stream bank erosion, as well as damage to building foundations, pavement, bridges and other structures. They are particularly difficult to manage, as they can easily spread from small stem or root fragments left in the soil. Some knotweed species can also spread by seeds. Provincial regulations require land owners to control all four knotweed species.

## IDENTIFICATION

Knotweed species look quite similar, but they can be distinguished by leaf size and shape.

- **Lifecycle:** Perennial plants; the above-ground portions of the plant die back in winter
- **Stem:** Hollow, green with reddish-brown spots



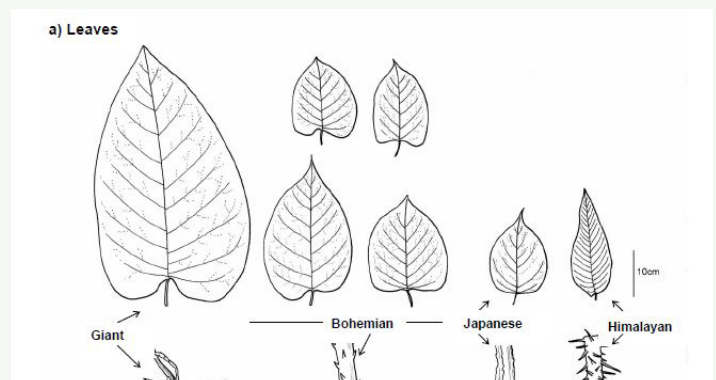
Knotweed stems

CREDIT: ISCMV



Bohemian knotweed flowers and leaves

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Leaves of the four knotweed species

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- **Leaves:** Heart to triangular-shaped, 8-10 centimetres wide, length varies by species
- **Roots:** Extensive root system up to 3 metres deep and 20 metres wide
- **Flowers:** Small, white plumes of flowers grow from where the leaves meet the stems
- **Seeds:** Small, black, dried seed pods with three wings; seeds of some knotweed species are not fertile



## PREVENTION AND CONTROL

To prevent further spread across the region and beyond, it is best not to purchase, trade, or grow knotweeds. If this plant is already present, it is critical to ensure it does not invade adjacent yards, parks and natural areas. Effective invasive plant management typically involves a variety of control methods. Manual control of knotweeds, such as pulling, cutting, digging or covering will not completely kill the plants and may encourage their spread. Knotweeds require special disposal and cannot be placed into residential yard waste. Herbicide use is currently the only effective control method available for knotweeds in BC. The following table summarizes the recommended techniques for controlling knotweed on private property or where permission has been granted by the land owner or manager. **It is best to consult a professional when managing knotweed infestations.**

CONTROL STRATEGY	TECHNIQUES	SUITABLE SITES	NOTES
Chemical	<b>Apply herbicide to leaves or inject into stems</b>	All sites	<ul style="list-style-type: none"><li>• May require a professional and use is restricted under some conditions, such as near streams, rivers or wetlands</li><li>• Check federal, provincial and local pesticide use regulations</li><li>• Follow label directions</li><li>• May cause unintended environmental or health impacts</li><li>• Stems treated with herbicide do not need to be removed from the site</li></ul>

It will likely require several seasons of treatments to fully eliminate knotweed infestations. Monitor sites for several years for regrowth, checking for stems a few metres from the original site and treating them. Restore the area with native or non-invasive plants only after the knotweed is no longer present.

## How Can You Help?

- Control invasive plants and replace them with a non-invasive alternative. Check out [growgreenguide.ca](http://growgreenguide.ca) for suggestions.
- Knotweed fragments and seeds can spread very easily. Remove any plant parts or seeds from clothing, pets, tools, equipment, vehicles, etc.
- Do not place invasive plants in your backyard composter as the temperature will not become hot enough to destroy the seeds and roots.
- To reduce the spread of invasive species, dispose of yard waste and soil appropriately. Visit your municipality's website for more information.
- Download the '[Report Invasives BC](#)' app to identify and report invasive species.

For the complete set of best management practices for knotweeds, and other key invasive species, [MetroVancouver.org](http://MetroVancouver.org) and search 'Invasive Species'.



Knotweed growing through asphalt

CREDIT: CITY OF SURREY