

INVASIVE TREES

of the Okanagan-Similkameen

Invasive trees threaten ecosystems in the Okanagan-Similkameen. They grow fast, produce lots of seeds and outcompete native plants. They are difficult and costly to manage.

Russian Olive



- Grows up to 9 metres tall
- Reddish-brown branches have long sharp spines
- Leaves are lance-shaped and light green with silvery hairs
- Flowers are small, light yellow and aromatic
- Berries are silver to light green or yellow
- Forms dense stands that alter nutrient cycling/hydrology
- Threatens riparian and wetland ecosystems

Black Locust



- Grows up to 25 metres tall
- Large leaves with oval-shaped leaflets arranged alternately around a central stem
- Fragrant white flowers grow in drooping clusters
- Smooth dark red-brown seedpods
- Young trees have long, sharp spines that can cause injury
- Toxic to humans and livestock
- Dense, interconnected stands dominate disturbed soils

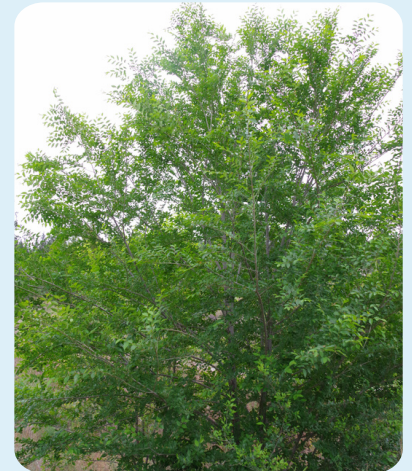
Tree of Heaven



- Grows up to 24 metres tall
- Leaves emit an offensive odour when crushed
- Large leaves with lance-shaped leaflets along a central stem
- Female trees produce clusters of seeds encased in a papery wing, often tinged with pink or orange
- Can develop dense thickets of cloned trees
- Roots can damage sewers, foundations and sidewalks
- Can cause allergic reactions and sap can irritate skin
- Releases a chemical into soil that is toxic to surrounding plants

Tree of heaven is a preferred host for the brown marmorated stink bug and spotted lanternfly. These invasive pests can damage grapes, tree fruits and other agricultural crops.

Siberian Elm



- Grows up to 18 metres tall
- Oval, pointed leaves with toothed margins are dark green in summer and dull yellow-green in fall
- Seeds are round with papery wings and hang in clusters
- Outcompetes shade-intolerant species and reduces biodiversity

Siberian elm is a preferred host for the elm seed bug. This invasive pest is a concern for property owners when it invades homes and structures in large numbers.

Management: The first priority in invasive tree management is **EARLY DETECTION AND CONTROL** to prevent widespread establishment. Single trees or small infestations should be highest priority for treatment.

Method	Pros	Cons	Description
Manual Removal	<ul style="list-style-type: none"> Highly effective for seedlings Can prevent further infestation 	<ul style="list-style-type: none"> Not possible for mature trees Labour intensive Requires follow up treatments 	<ul style="list-style-type: none"> Seedlings of tree of heaven, Siberian elm and Russian olive can be hand pulled or dug when soils are moist Use a tree wrench to pull young trees (trunk diameter 8 cm or less) Effective for small infestations and where other methods are not practical Do not pull black locust; damage to roots causes stems to sprout
Cutting	<ul style="list-style-type: none"> Highly effective when combined with herbicide treatment 	<ul style="list-style-type: none"> Labour intensive Resprouting likely 	<ul style="list-style-type: none"> Cut down trees before fruits or seeds mature For best results, apply an herbicide to the stump within 15 minutes of cutting Sprouts should be cut multiple times a year over several years
Girdling	<ul style="list-style-type: none"> Highly effective when combined with herbicide treatment 	<ul style="list-style-type: none"> Labour intensive Requires consistent treatment over several years to be effective Resprouting likely 	<ul style="list-style-type: none"> Remove bark and cambial tissue around the trunk, approximately 10 cm wide and as close to the ground as possible Resprouts should be cut multiple times throughout the year After several years with consistent treatments, the tree should die and can be cut down
Herbicide	<ul style="list-style-type: none"> Most effective method Typically less labour intensive 	<ul style="list-style-type: none"> Cannot be used near water or other sensitive areas Can be expensive to purchase herbicides and hire applicators 	<p>Herbicides can be applied using the following methods:</p> <ul style="list-style-type: none"> Cut stump Foliar Basal bark Hack-and-squirt <p>Read herbicide labels carefully to ensure it will target the plant you are managing. When applying herbicides, follow label instructions for proper use and safety instructions.</p> <p>Contact AgriServiceBC@gov.bc.ca for more information on the selection and application of herbicides.</p>

ALWAYS take safety precautions when managing invasive trees. Consult with a professional or your regional district office to ensure proper permits or qualifications are obtained.

- **Monitor** for resprouting
- **Re-treat** as necessary
- **Re-plant** bare or disturbed soils to reduce the likelihood of invasive plant re-establishment

Biocontrol agents (natural insect enemies) are being researched for tree of heaven and Russian olive. These may become available for use in the future.

Dispose of plant material at a landfill. Chipping is a safe and efficient means of disposal for limbs and trunks. Do not compost invasive plants as they may resprout.

GET ADVICE

For more information about invasive species and management advice go to:

www.oasiss.ca



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