BRITISH COLUMBIA FireSmart™

FireSmart BC Landscaping Guide

By making some strategic choices in your yard, you can increase the wildfire resiliency of your property. This guide includes an extensive list of fire-resistant plants, as well as tips on how to create a FireSmart™ landscape around your property.

FireSmart BC is grateful for the important role that the First Nations Forestry Council had in our Indigenous engagement and the development of this guide.

Thank you to our sponsor

Art Knapp and FireSmart BC have teamed up to help you choose FireSmart plants for your property. Visit participating stores in Kamloops and Prince George for more details.

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Introduction

The task team that created this guide was made up of individuals and organizations from across British Columbia with a passion for FireSmart and landscaping. Virtual engagement sessions were also held in early 2021 where individuals from Nations participated to provide input and expertise on the guide. This guide is a living document that will grow and evolve as FireSmart BC strives to continually meet the needs of our communities. The following representatives from Emergency Management British Columbia (EMBC), the BC FireSmart Committee (BCFSC), the Union of BC Municipalities (UBCM), the BC Wildfire Service (BCWS) and the First Nations' Emergency Services Society (FNESS) participated in developing this guide:

Ryan Turcot | Public Education and Online Communications Officer, EMBC

Kelsey Winter | Chair, BCFSC

Karen Borden | BCFSC Committee Coordinator, UBCM

Janet Ford | FireSmart Coordinator, BCWS

Darrick Andrew | Forest Fuel Management Liaison, FNESS

We would like to highlight the following individuals who greatly contributed to the guide:

Heike Stippler from the BC Landscaping and Nursery Association www.BCLNA.com is a Red Seal certified Landscape Horticulturist with a degree in Architecture from Germany. Stippler operates a landscape business in Whistler, BC, and her passion for horticulture and the environment go hand in hand as she uses green practices and creates awareness by educating.

Karla Hoffman originally worked on the FireSmart Canada Guide to Landscaping and has designed, installed, and maintained landscapes — from small residential sites to commercial, university, and municipal grounds. For more than a decade Hoffman led a public education campaign about plant health, integrated pest management, and how to conserve landscape water in a semi-arid climate. During this time, Hoffman was tasked with taking two seemingly opposing objectives and making them compatible with each other, namely, xeriscaping and being FireSmart.

Brent Schorr is a Master Gardener and a member of the Victoria Master Gardener Association. Schorr volunteers with the Horticulture Centre of the Pacific and with FireSmart BC. Like many in BC, Schorr's home is located in the wildland-urban interface and he wants to help keep not just his, but everyone's, family, property and home safe by helping people or residents in advance to reduce fire danger.

Telise Gauthier works with the First Nations and Indigenous Relations Team as a part of the Indigenous Youth Internship Program. She was raised in Quesnel, BC, but moved to Kelowna to complete her undergraduate studies at UBC-Okanagan with her Bachelor of Arts in Geography and Psychology. Gauthier's undergraduate projects and directed studies course largely focused on incorporating Indigenous perspectives and highlighting Indigenous societal gaps.

Purpose of the Guide

The FireSmart BC Landscaping Guide is meant to help British Columbians make informed choices about how to manage their lawns and gardens to increase resilience to wildfire on their properties. Our goal is to recommend species, property layout, and plant care practices that reduce risk to our communities from a variety of natural hazards. We recognize the regional diversity of BC so this guide suggests plants that are suitable for communities in terms of cold-hardiness, drought tolerance, and avoidance of invasive species.

This guide is intended for everyone who calls BC home. Homeowners, tenants, developers and community planners can all use this guide as a source of information for landscaping projects. Properties located at the border of a community play an important role in protecting other properties from the harm of wildfires. Farmers and ranchers can also use this guide to enhance their landscaping decisions.

Wildfire Reality

Wildfires are a natural part of British Columbia's wildland ecosystems. Without wildfire, the landscape loses its diversity. Wildfires recycle nutrients, help plants reproduce and create a mosaic of vegetation that provides habitat for a variety of wildlife.

Due partially to climate change, and by choosing to extend our communities, resource developments and recreational pursuits into forested areas, we become more exposed to the danger of wildfire. Living where wildfires can occur may put your home at risk, but it's possible to reduce the potential impacts on your home from these natural events. The landscaping recommendations in this guide will help reduce the risk of wildfire near your home and provide a better opportunity for firefighters to defend your home. Keep in mind that what you plant can impact what wildlife can and can't forage for, and this in turn can impact the food security for communities. In an ecosystem, everything is connected; so be mindful about the wildlife food needs in your area.

Prescribed Fire and Cultural Burning

Anthropogenic and natural fires have long shaped the North American landscape from both lightning and Indigenous peoples' millennia-long practice of prescribed fire. Many Indigenous Peoples have used fire to regenerate the landscape, create resilient forests, and in cultural ceremonies since time immemorial. This practice has been greatly reduced in recent history due to increased settlement in the wildland-urban interface and 20th-century fire-suppression tactics. The ecological consequences of fire exclusions are becoming apparent and the shared responsibility of creating a more resilient BC is now more important than ever.

By integrating Indigenous fire practices and current fire research, prescribed fire is a useful tool to promote ecological diversity, resilient forests, and safer communities. Past fire seasons have shown the impact that megafires have on surrounding communities and the landscape. Large amounts of smoke can have negative impacts on surrounding communities, especially for vulnerable people such as Elders. The ecological impacts can last for decades and significantly shift the composition of the landscape. Introducing more frequent and smaller fires in a controlled manner can help to promote healthy forest diversity. Wildfire can impact and enhance cultural survival and the ability to access traditional and cultural resources. Wildfire mitigation on and off reserve as well as around communities is an important way to protect communities themselves.

The term FireSmart itself is another way to explain how fire and other principles can be used as tools to mitigate fuels. Different environmental, cultural, social, and economic objectives guide how cultural and prescribed fire is used across British Columbia, and prescribed fire is just one among a suite of tools that may be used to achieve the FireSmart objective of increasing wildfire resiliency. Prescribed fire and cultural burning are two ways of managing for wildfire on the land base, FireSmart landscaping is another. Only by addressing concerns at the land base level AND the homeowner and community levels will BC be able to increase the province's wildfire resiliency. We all have a part to play.

FireSmart Basics

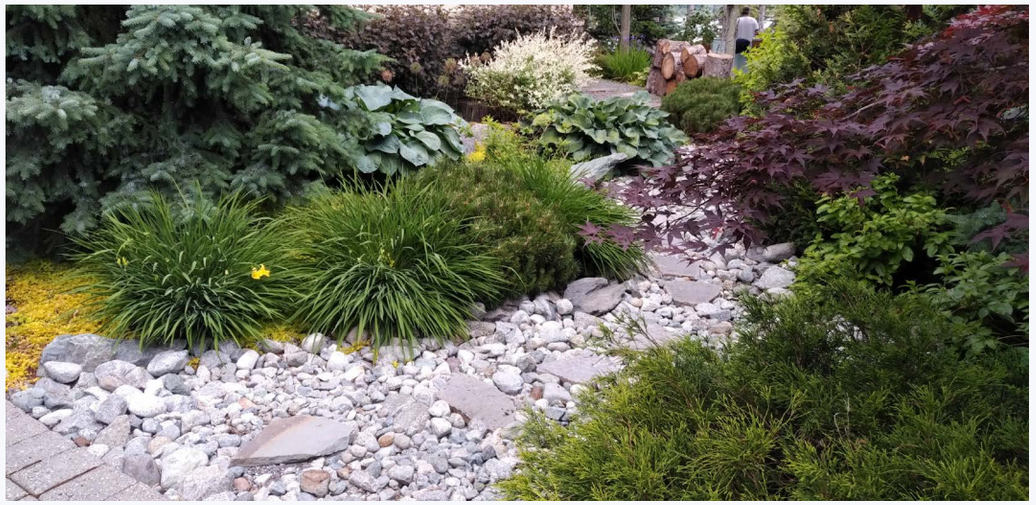
Being FireSmart is about living with wildfires and managing for it on our landscapes. FireSmart methods have proven to reduce the risk of losses, even under the most extreme fire conditions. FireSmart is a seven-discipline program that includes a comprehensive set of tools and guidance on how to undertake and implement neighbourhood-based wildfire prevention and mitigation initiatives.

The seven disciplines are Education, Vegetation Management, Emergency Planning, Cross-training, Interagency Cooperation, Development Consideration, and Legislation and Planning.

FireSmart landscaping falls under the Vegetation Management discipline. Your best protection from wildfire is prevention, and your best tool is the FireSmart program. For more information on the other disciplines of FireSmart and how you can get involved in protecting your neighbourhood from wildfire visit www.FireSmartBC.ca.

"Take care of the land, and the land will take care of you."

– Indigenous Land Stewardship Principle



FireSmart Priority Zones

FireSmart focuses on what is realistic for you to achieve in order to limit the risk of wildfire to your home. Changes within 10 metres of your home will have the biggest impact. Make sure that you maintain a 1.5-metre, non-combustible zone around your entire home and any attachments. Fire embers may seem small, but they should not be underestimated — 50 per cent of home fires caused by wildfires are started by embers.

Start by making changes to your home and then work your way outwards. Some renovations and upgrades may be costly or time-consuming, but focus on what is realistic for you to achieve and start incorporating FireSmart principles into your long-term home planning. Adopting FireSmart landscaping practices can make a difference in how and where embers from a wildland fire are able to accumulate or establish.

The FireSmart BC Landscaping Guide provides advice on how to make smart choices regarding fire-resistant trees, plants, shrubs and grasses for all your landscaping needs.

Wildfire follows a path from a forest or grassland to your home. A FireSmart yard means taking small steps to:

- Slow the spread of fire by spacing out your trees
- Increase your home's ability to withstand wildfire by breaking continuity of your plants
- Keep a well maintained lawn; green grass shorter than 10 centimetres is less likely to burn intensely
- Make smart choices for trees, plants, shrubs, and grass

Together we can build a FireSmart BC. Happy landscaping!

How FireSmart Landscaping Works

Integrating FireSmart principles and practices into your long-term landscaping plan and daily yard work routine reduces your wildfire risk.

Vertical Considerations

- A **ladder fuel** is a term for live or dead vegetation that allows a fire to climb up from the landscape onto buildings or into the tree canopy. Common fuel ladders include: tall grasses, shrubs, and tree branches (both living and dead).
  - Prune all lower tree branches 2 m from the ground

Horizontal Considerations

- Plant trees and shrubs away from buildings to ensure branches do not touch or hang over roofs. Keep mature sizes in mind.
- Space plantings
- Use decorative rock, pathways, retaining walls
- Design ponds and streams

Plant Selection

- Know FireSmart priority zones (see page 12)
- Select plants that realistically meet your gardening time constraints
- Consider wisely:
  - Hardiness zone
  - Mature size
  - Location
  - Maintenance
  - Water requirements
  - Sun/shade requirements
  - Wind
  - Native plants
- Plant and maintain a healthy lawn for a fire-resistant landscape, it is an effective fuel break
- Considerations:
  - Ensure lawn gets the right amount of water to keep it green with less water use (infrequent, deep watering 1-2 times per week keeps a lawn green, ~2.5 cm a week)
  - Introduce clovers to keep lawn green, less water use
  - Keep grass mowed to a max height of 10 centimetres
  - Replace areas that are difficult to mow with other landscaping
  - Replace sections of lawn with other fire-resistant groundcovers and shrubs
  - Replace grass with hard surfaces, decorative rock, walkways, gravels

Hedges, Privacy, & Screening

Cedar and junipers have been used extensively to provide privacy. However, they are extremely flammable and often pose the most significant risk for ignition of homes and other structures. The good news is that there are alternatives such as broadleaf evergreens that offer all-season screening. See the FireSmart Plants chart for ideas. Although they may not all provide the exact screening characteristics of pyramid cedars and upright junipers, many will provide adequate privacy while offering ecological value and other aesthetically pleasing features.

- Location is very important when planting a hedge. Even the most fire-resistant plant should be no closer than 1.5 m to a house or any structure.
- Be sure to locate your hedge in such a way that it doesn't:
  - become a ladder fuel - a term for vegetation that allows a fire to climb into the tree canopy
  - become a path for fire to ignite a fence or building
- The height of plants affects flame height - generally shorter plants will produce shorter flames and taller plants will produce taller flames. Remember to maintain a 1.5 metre non-combustible zone, keeping branches out of this zone and out from under roof lines.
- For plants that have lower branches, be sure to remove dead debris to reduce risk of ember ignition.
- Plants are healthier when left to grow in their natural shape. When plants are shaped, they start to form dense branching which can increase fire risk due to the accumulation of dead plant material. Regular removal of this material is important for reducing risk of ember ignition.
- Since it is often quite narrow between houses, fencing may be a suitable choice for privacy. However, fencing may pose a fire risk. It can act like a wick up to a building. Installing a metal gate next to a home is one way of breaking up the potential path of fire.

Plant Maintenance

- Keep all plants healthy, unhealthy plants are a greater fire risk
  - Water your plants as required
  - Prune and fertilize at the right time
  - When planting, plant so the top of the root ball is flush with grade (too deep and roots cannot breathe, too shallow and roots will dry out quickly)
  - Place mulch slightly away from plant stems to avoid damage and increased risk of disease
- Remove dead plant material (whole plants, or branches and leaves from living plants)
  - Do not pile dead material near buildings
  - Remove fruit and seeds that may pose a fire danger when dried
- Keep roofs and gutters clear of branches and leaves

Mulches

Colour Key		
	Very Low Risk	Levels of risk are based on the combined results from research regarding: ignition probability, flame height, rate of spread, and temperature.
	Low Risk	
	Moderate Risk	
	High Risk	
	Extremely high Risk	

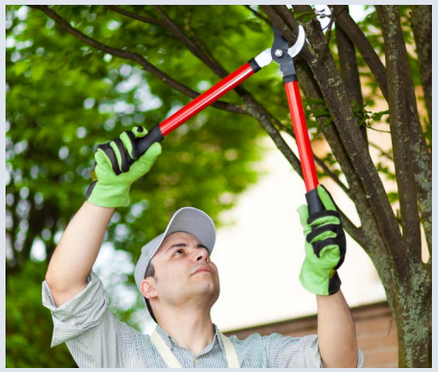
Mulch Materials		Home Ignitions Zones		
		Immediate (0-1.5 m)	Intermediate (1.5-10 m)	Extended (10-30 m)
Inorganic	Rock, gravel, shale, stone, lava, etc. The inorganic materials noted will not burn, however combustible debris such as leaves could accumulate on the surface and ignite.			
Organic	Mature Compost			
	Composted Bark/Wood			
	Bark Nuggets			
	Medium Bark Mulch			
	Raw Wood Chips			
	Pine Needles			
	Shredded Cedar			
	Shredded Rubber			

Description of Organic Mulch Materials	
Mature Compost	Formerly living plant materials that have decomposed to the point of being dark brown, crumbly, and the original contents are no longer recognizable. Not typically commercially available, but found in a backyard compost pile.
Composted Bark/Wood	Bark and/or wood pieces that have partially decomposed and are dark in colour.
Bark Nuggets	Bark pieces that are predominantly about 2.5 cm in diameter, with a portion made up of wood chips and other unrecognizable materials.
Medium Bark Mulch	Undecomposed bark mulch pieces of varying sizes.
Raw Wood Chips	Undecomposed or freshly chipped tree pieces, often a product of arborist operations.
Pine Needles	Made up mostly of pine needles of varying lengths with a small amount of other woody debris.
Shredded Cedar	Cedar wood that has been shredded into stringy, fibrous material, with a small portion of wood chips.
Shredded Rubber	Recycled rubber that has been processed to mimic wood mulch products.

This chart is meant to be a general guide and is based on research done to date. Research is ongoing and additional information will be provided when available. Please take into consideration the risk of wildfire to your individual property and follow all FireSmart landscaping best practices.

Do ✓

Pile firewood, leaves or dead material away from buildings.



Do ✓

Prune tree branches away from your roof.

Do ✓

Remove fuel for wildfire from around the exterior of your home.

Do ✓

Keep a tidy lawn. Fires travel less quickly across trimmed grass.

Plant Flammability

What makes a plant fire-resistant?

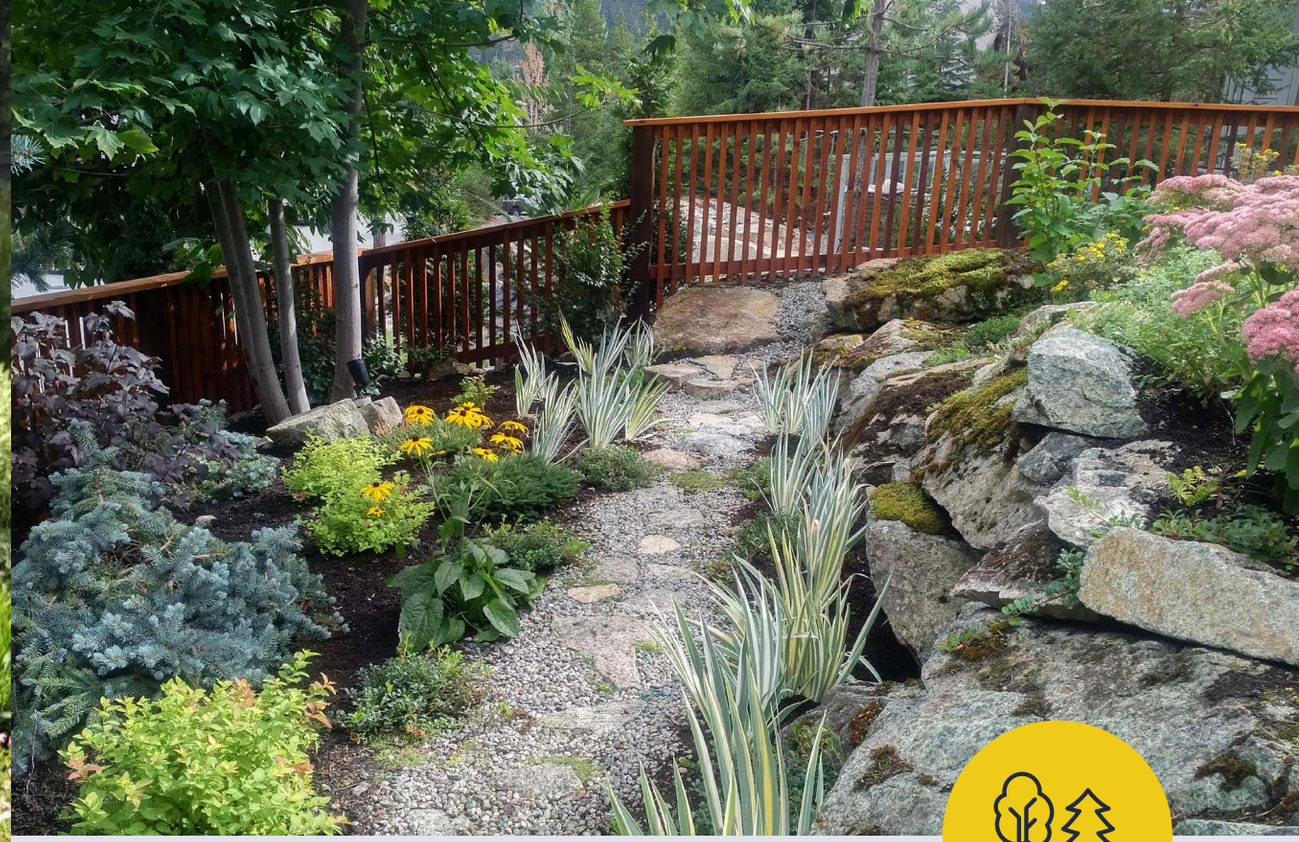
Fire-resistant plants do not provide significant fuel or increase fire intensity

- Moist, supple leaves (ignite and burn slower)
- Little dead wood or accumulated dead material
- Open branching habits (less fuel for fire)
- Fewer total branches and leaves (less fuel for fire)
- Have a slow growing habit (less pruning required)
- Water-like sap with little or no odour
- Low amount of sap or resin material
- Low growing habit

What makes a plant highly flammable?

Highly flammable plants provide fuel and can increase fire intensity

- Contain fine, dry, dead material within the plant such as twigs, needles, and leaves
- Loose papery bark
- Stems, branches or leaves contain volatile waxes, terpenes or oils
  - Leaves are aromatic, strong odor when crushed
  - Gummy, resinous sap with a strong odour



FireSmart Plants

The FireSmart BC Plant Chart (pages 26-45) in this guide helps British Columbians make sustainable plant choices that will minimize risk of structure loss due to wildfire. FireSmart selections can be compatible with conserving water and attracting pollinators. The chart is designed so that many elements can be seen at a glance.

The plant chart is based on research done to date and is not exhaustive. With further research additional plants may be added. Also, not all plants on the chart are equally FireSmart. Some will ignite earlier than others, but are generally preferred over the highly combustible plants on the Fire Hazards chart on page 44. Also keep in mind that some areas of the province are drier than others; more caution is needed in those regions.

Being FireSmart and Xeriscaping

You can be FireSmart, water smart, and have a beautiful landscape! Xeriscaping is landscaping that helps you creatively conserve water in your yard. Not only does xeriscaping use less water, it also reduces the requirements for fertilizers and pesticides, and reduces the time needed for weeding, pruning and mowing.

The plants in the FireSmart BC Plant Chart are ranked according to their water needs. There are many attractive choices that have low water requirements. If you select plants with higher water requirements, it is best to group them together to maximize the effectiveness of watering. Also, due to the varied growing regions in British Columbia, plants that require little irrigation in some parts of the province may need significantly more in other areas.

Attracting Pollinators

Pollinators are critters that transfer pollen from flower to flower; they include birds, bats, native bees, honey bees, wasps, butterflies, moths, flies, some beetles, and even mosquitoes. Pollination is an essential part of the natural environment and contributes to many aspects of our lives. Since many pollinator populations are declining, it is beneficial to support pollinators whenever possible.

Plant diversity is a good gardening practice and is especially helpful for pollinators. Most plants are pollinator friendly since they provide nesting sites and protection from the elements. The plants with the pollinator icon (🐝) on the FireSmart BC Plant Chart have been documented as being particularly attractive to pollinators. A number of native plants fall into this category.

Native Plants

Since British Columbia covers a vast area with many different growing conditions, there is a wide variety of native plants. Choosing FireSmart plants that grow in your local natural environment helps to support other parts of the ecosystem. A number of native plants are included in the FireSmart BC Plant Chart, however not all may be easily sourced. As the demand for native plants increases, more growers may include them in their inventory.

Where to source native plants

- Look for local specialty nurseries that recognize the importance of growing plants suited to the area.
- Request permission from local private property owners to harvest native plants. Be sure to minimize disturbance.

Do NOT harvest plants from park lands.

Invasive Plants

Invasive plants are usually non-native (exotic or introduced) species that spread easily and do not have natural control measures such as insect predators or plant pathogens in place to keep them contained. There can be negative impacts to the environment, human health and safety, recreation, and the economy. The FireSmart BC Plant Chart in this brochure does not include any currently known invasive alien plants or designated noxious weeds. Visit **bcinvasives.ca** for more information.

Leaf Types

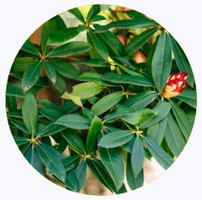
The plant chart provides the leaf types for trees, shrubs, vines, and groundcovers. The leaf types are:

Deciduous (D)

Technically any plant that sheds all its leaves at one time each year, usually in the fall, is deciduous. People generally think of broadleaf trees such as maples, however, larch trees with needle-like leaves are part of a small group of deciduous conifers.

Conifers (C)

Any plant that bears seeds in cones is a conifer. They are often called evergreens since most leaves are retained throughout the year. The leaves are either needle-like as with spruce, pine, fir and cypress trees, or scale-like as with junipers and cedars.



Broadleaf Evergreens (B)

A plant that retains most of its foliage all year but does not have needle-like or scale-like leaves is a broadleaf evergreen. A common example is a rhododendron.

Conifers

Due to the natural make up of conifers, most are not considered FireSmart friendly. Conifers should generally be avoided; however, the higher water content of Western Larch and the thick bark of Ponderosa Pine make these the most fire-resistant options.

Conifers do have redeeming qualities; they are beautiful landscape elements and are wildlife friendly. Also, there are times when tree removal is not permitted nor feasible. However, fire risk can still be mitigated by pruning lower branches and raking up dead debris such as needles and cones.

Wildlife

Please consider wildlife when planting. While many (native) plants are beneficial to various species, they may also attract bears, deer and other potentially unwanted critters. To avoid conflicts, please learn about your local bylaws and regulations. You can harvest fruit before bears become a problem, for example, or choose a location away from buildings. Edible, pollinator-friendly, bear and wildlife-safe plants do not have to cause conflict.

Consider the Deer

Deer are lovely creatures until they start eating your landscape plants, especially your coveted favourites. Unfortunately, there are very few, if any, truly deer-proof plants, since deer will try almost anything. This is especially true in dry years. Since that is the case, there is no reference in the FireSmart BC Plant Chart for deer-resistant species. Barriers such as fencing and netting are often the best bet. Another strategy is to plant deer favourites in an area away from your favourites.

FireSmart BC Plant Chart

Trees		USDA Hardiness Zone(s)	Sun / Shade	Approx. Mature Height	Water Use Category				Attracts Pollinators	Leaf Types: Deciduous (D) Conifierous (C) Broadleaf Evergreen (B)
Common Name	**Scientific Name**				**Very Low**	**Low**	**Medium**	**High**		
Alders										
Mountain Alder*	Alnus tenuiflolia*	5	fs	6 - 7.5 m			■			D
Red Alder*	Alnus rubra*	5	fs-psh	13 - 15 m			■			D
Amur Cherry	Prunus maackia	2	fs-psh	10.5 - 13.5 m			■		🐝	D
Amur Corktree	Phellodendron amurense	3	fs	9 - 14 m				■		D
Amur Maackia	Maackia amurensis	3	fs	6 - 9 m			■			D
Ash										
Green Ash	Fraxinus pennsylvanica	3	fs	12 - 18 m		■	■	■		D
White Ash	Fraxinus americana	3	fs	12 - 18 m			■			D
Bittter Cherry*	Prunus emarginata*	4	fs-psh	15 m			■		🐝	D
Black Cherry	Prunus serotina	3	fs-psh	15 - 18 m			■		🐝	D
Black Walnut	Juglans nigra	4	fs	12 - 18+ m			■			D
Blackgum / Black Tupelo	Nyssa sylvatica	3	fs-psh	9 - 15 m				■		D
Butternut	Juglans cinerea	3	fs	12 - 18 m			■			D
Catalpa	Catalpa speciosa	4	fs	12 - 15 m			■			D
Chokecherry	Prunus virginiana	2	fs	6 - 9 m			■		🐝	D
Common Hackberry	Celtis occidentalis	2	fs-psh	12 - 15 m			■			D
Crab Apple - Ornamental	Malus spp.	4 - 8	fs-psh	4.5 - 6 m		■	■			D
Eastern Redbud	Cercis canadensis	4	fs	7.5 - 10.5 m			■			D
European Beech	Fagus sylvatica	4	fs	15 - 18 m				■		D
Flowering Dogwood	Cornus florida	5	fs	6 - 9 m				■		D
Flowering Plum	Prunus cerasifera	4	fs	4.5 - 9 m		■			🐝	D
Ginkgo / Maidenhair Tree	Ginkgo biloba	3	fs	15 - 25 m			■			D
Golden Chain Tree	Laburnum watereri	5	fs-psh	3.5 - 4.5 m			■			D
Golden Raintree	Koelreuteria paniculata	5	fs	9 - 12 m		■				D
Hawthorn	Crataegus spp.	3 - 4	fs	4.5 - 6 m			■			D
Honeylocust	Gleditsia triacanthos	3	fs	9 - 21 m		■				D
Hornbeam	Carpinus betulus	4	fs	12 - 18 m				■		D
Horsechestnut	Aesculus hippocastanum	3	fs	12 - 15 m			■			D
Japanese Pagoda Tree	Sophora japonica	4	fs-psh	15 - 21 m			■			D
Kentucky Coffee Tree	Gymnocladus dioicus	3	fs	12 - 15 m			■			D
Linden	Tilia spp.	2 - 5	fs	18 - 20 m			■	■		D
London Planetree	Platanus acerifolia	4	fs-psh	21 - 30 m			■			D
Madrone*	Arbutus menziesii*	7	fs	6 - 30 m		■				D

Trees		USDA Hardiness Zone(s)	Sun / Shade	Approx. Mature Height	Water Use Category				Attracts Pollinators	Leaf Types: Deciduous (D) Conifierous (C) Broadleaf Evergreen (B)
Common Name	**Scientific Name**				**Very Low**	**Low**	**Medium**	**High**		
Maples										
Amur Maple	Acer ginnala	2	fs-psh	4.5 - 6 m						D
Bigleaf Maple	Acer macrophyllum	5	fs	9 - 23 m						D
Japanese Maple	Acer palmatum	5 - 6	ps	4.5 - 7.5 m						D
Norway Maple	Acer platanoides	3	fs	12 - 15 m						D
Red Maple	Acer rubrum	3	fs	12 - 18 m						D
Rocky Mountain Maple*	Acer glabrum*	4	fs-psh	3 - 4.5 m						D
Silver Maple	Acer saccharinum	3	fs	15 - 21 m						D
Vine Maple*	Acer circinatum*	4	fs-psh	4.5 - 6 m						D
Mayday Tree	Prunus padus commutata	3	fs-psh	9 - 12 m						D
Mulberry	Morus alba	4	fs-psh	9 - 15 m						D
Oaks										
Bur Oak	Quercus macrocarpa	2	fs	21 - 24 m						D
Garry Oak*	Quercus garryana*	6	fs	12 - 27 m						D
Pin Oak	Quercus palustris	4	fs	15 - 21 m						D
Red Oak	Quercus rubra	4	fs	18 - 23 m						D
White Oak	Quercus alba	3	fs	15 - 25 m						D
Pear	Pyrus spp.	3 - 8	fs	9 - 15 m						D
Pin Cherry*	Prunus pennsylvanica*	2	fs	12 m						D
Poplars										
Cottonwood*	Populus spp.*	2 - 3	fs	40 m						D
Quaking Aspen / Trembling Aspen	Populus tremuloides	1	fs-psh	9 - 12 m						D
Purple Robe Locust (other Black Locusts are invasive)	Robinia pseudoacacia 'Purple Robe'	3	fs	9 - 12 m						D
Sassafras	Sassafras albidum	4	fs-psh	9 - 18 m						D
Schubert Chokecherry	Prunus virginiana 'Schubert'	3	fs-psh	6 - 9 m						D
Staghorn Sumac	Rhus typhina	3	fs-psh	4.5 - 7.5 m						D
Sweetgum	Liquidambur styraciflua	5	fs	18 - 23 m						D
Tulip Tree	Liriodendron tulipifera	4	fs	21 - 27 m						D
Water Birch*	Betula occidentalis*	2	fs-sh	6 - 9 m						D
Weeping Willow	Salix babylonica	5	fs	9 - 12 m						D

Shrubs		USDA Hardiness Zone(s)	Sun / Shade	Approx. Mature Height	Water Use Category				Attracts Pollinators	Leaf Types: Deciduous (D) Conifierous (C) Broadleaf Evergreen (B)
Common Name	**Scientific Name**				**Very Low**	**Low**	**Medium**	**High**		
Alpine Currant	Ribes alpinum	2	fs-psh	0.90 - 1.8 m						D
Antelope Bitterbrush*	Purshia tridentata*	3	fs	1 - 2 m						D
Barberry	Berberis sp.	4 - 9	fs	0.45 - 1.5 m						D
Beaked Hazelnut / Filbert*	Corylus cornuta*	4	fs-psh	1.2 - 2.4 m						D
Blueberry, Huckleberry	Vaccinum spp.	2 - 8	fs-psh	0.15 - 3.5 m						D
Blue-mist Spirea	Caryopteris x clandonensis	5	fs-psh	0.90 - 1.5 m						D
Bog Labrador Tea / Indian Tea / Labrador Tea*	Rhododendron groenlandicum*	2	fs-psh	0.50 - 01.5 m						B
Buckbrush / Snowbrush / Sticky Laurel	Ceanothus velutinous	4	fs-psh	0.5 - 3 m						B
Buffaloberry / Indian Ice Cream / Soapberry / Soopalallie	Shepherdia spp.	2	fs	1.8 - 3.0 m						D
Burning Bush	Euonymus alatus 'Compactus'	4	fs-psh	1.2 - 1.8 m						D
Ceanothus	Ceanothus ovatus	4	fs-psh	60 - 90 cm						D
Chokeberry	Aronia spp.	3 - 4	fs-psh	1.8 - 3 m						D
Cinquefoil, Potentilla	Potentilla fruticosa	2	fs-psh	0.3 - 1.2 m						D
Common Lilac	Syringa vulgaris	3	fs-psh	1.5 - 4.5 m						D
Cotoneaster, Cranberry	Cotoneaster apiculatus	4	fs-psh	90 cm						B
Cotoneaster, Peking	Cotoneaster acutifolius	4	fs-psh	1. 8 - 3 m						D
Cranberry Bush	Viburnum trilobum	2	fs-psh	1.2 - 3.5 m						D
Cranberry, High-bush*	Viburnum edule*	5	fs	1.8 - 2.5 m						D
Creeping Holly	Mahonia repens	3	fs-psh	30 - 45 cm						B
Daphne, Carol Mackie	Daphne x burkwoodii	4	fs-psh	0.60 - 1.2 m						B
Devil's club*	Oplopanas horridus*	4	sh	1.8 m						
Double Flowering Plum / Flowering Almond	Prunus triloba	3	fs-psh	3.5 - 4.5 m						D
Elderberry	Sambucus spp.	3 - 5	fs-psh	1.5 - 9 m						D
Firethorn / Pyrcantha	Pyracantha coccinea	6	fs-psh	1.8 - 5.5 m						B
Grey Lavender / Lavender Cotton / Santolina	Santolina chamaecyparissus	6	fs	30 - 60 cm						B
Forsythia	Forsythia spp.	4 - 5	fs	2.5 - 3 m						D
Heather	Calluna vulgaris	4	fs-psh	10 - 60 cm						B
Japanese Kerria	Kerria japonica	4	ps	0.9 - 1.8 m						D
Mahala Mat*	Ceanothus prostratus*	6	fs	2.5 - 7.5 cm						D
Mock Orange	Philadelphus sp.	4	fs-psh	1.8 - 2.4 m						D
Nanking Cherry	Prunus tomentosa	2	fs-psh	1.8 - 3 m						D
Ninebark	Physocarpus opulifolius	2	fs-psh	1.5 - 3 m						D

Shrubs		USDA Hardiness Zone(s)	Sun / Shade	Approx. Mature Height	Water Use Category				Attracts Pollinators	Leaf Types: Deciduous (D) Conifierous (C) Broadleaf Evergreen (B)
Common Name	**Scientific Name**				**Very Low**	**Low**	**Medium**	**High**		
Oakleaf Hydrangea	Hydrangea quercifolia	5	fs-psh	1.2 - 1.8 m			■			D
Oceanspray	Holodiscus discolor	5	fs-psh	1.8 - 2.7 m			■		🐝	D
Orchid Rockrose	Cistus purpureus	8	fs	0.90 - 1.20 m		■				B
Oregon Boxwood	Paxistima myrtifolia	5	fs-psh	0.30 - 1.2 m				■		B
Oregon Grape	Mahonia aquifolium	3	fs-psh	1.5 - 1.8 m		■	■		🐝	B
Pacific Rhododendron*	Rhododendron macrophylum*	6	fs-psh	1.8 - 3.6 m				■		B
Point Reyes Ceanothus	Ceanothus gloriosus	7	fs-psh	30 - 90 cm		■				B
Privet	Ligustrum spp.	3 - 8	fs-psh	1.8 - 4.5 m			■			B
Purple-Leaf Sand Cherry	Prunus cistena	2	fs-psh	2 - 3 m			■		🐝	D
Quince	Chaenomeles spp.	4	fs-psh	0.6 - 3 m			■			D
Rabbitbrush / Rabbitbush	Ericameria nauseosa	3	fs	1 m	■				🐝	D
Raspberry	Rubus sp.	3 - 5	fs-psh	2 - 150 cm			■		🐝	D
Red-flowering Currant*	Ribes sanguineum*	5	fs-psh	3m		■	■		🐝	
Redosier Dogwood / Red-twig Dogwood	Cornus sericea	2	fs	2.1 - 3 m		■	■	■		D
Rose of Sharon	Hibiscus syriacus	5	fs-psh	2.5 - 3.5 m			■			D
Rose, Rugosa	Rosa rugosa 'Hansa'	2	fs-psh	1.5 - 1.8 m		■	■			D
Rose, Wood's*	Rosa woodsii*	4	fs-psh	0.90 - 1.8 m			■			D
Salal	Gaultheria shallon	6	fs-psh	0.30 - 3 m				■		B
Saskatoon /Serviceberry	Amelanchier sp.	4	fs-psh	2.5 - 3.5 m		■				D
Siberian Peashrub	Caragana arborescens	2	fs-psh	4.5 - 6 m	■	■				D
Silverberry	Elaeagnus commutata	2	fs	1. 8 - 3.5 m		■				D
Smoke Tree	Cotinus coggygria	4	fs	3 - 4. 5 m		■				D
Snowberry	Symphoricarpos albus	3	fs-psh	1.2 - 1.8 m		■			🐝	D
Spirea	Spiraea spp.	3	fs-psh	0.60 - 1.2 m		■	■			D
Spirea, Hardhack / Western	Spiraea douglasii	4	fs-psh	0.90 - 1.8 m			■			D
Sumac, Fragrant	Rhus aromatica	3	fs-psh	0.6 - 1.8 m	■					D
Sumac, Smooth	Rhus glabra	2	fs-psh	2.75 - 4.5 m		■				D
Tallhedge Glossy Buckthorn	Rhamnus frangula	2	fs-psh	2.5 - 3.5 m			■			D
Tatarian Honeysuckle	Lonicera tatarica	3	fs-psh	3 - 3.5 m			■			D
Western Azalea	Rhododendron occidentale	6	fs-psh	1.5 m				■		D
Western Chokecherry*	Prunus virginiana*	2	fs-psh	5.5 - 7.5 m			■		🐝	D
Western Mountain Ash*	Sorbus scopulina*	2 - 4	fs-psh	5 m				■		D
Western Sandcherry	Prunus besseyi	3	fs-psh	1.2 - 1.8 m			■		🐝	D
Willow	Salix spp.	2	fs	1.8 - 3 m				■	🐝	D
Witchhazel	Hamamelis spp.	3 - 5	fs-psh	1.8 - 9 m			■			D

Vines and Groundcovers		USDA Hardiness Zone(s)	Sun / Shade	Approx. Mature Height	Water Use Category				Attracts Pollinators	Leaf Types: Deciduous (D) Conifierous (C) Broadleaf Evergreen (B)
Common Name	**Scientific Name**				**Very Low**	**Low**	**Medium**	**High**		
Beach Wormwood / Dusty Miller	Artemisia stelleriana	3	fs	20 cm		■				B
Carpet Bugle	Ajuga reptans	4	fs-psh	10 - 25 cm			■			D
Clematis	Clematis spp.	3 - 5	ps	1.5 - 1.8 m				■		D
Climbing Rose	Rosa setigera	4	fs-psh	1.0 - 4.5 m			■			D
Cotoneaster, Horizontal	Cotoneaster horizontalis	4	fs-psh	60 - 90 cm			■			D
Cottoneaster, Bearberry	Cotoneaster dammeri	5	fs-psh	30 - 45 cm			■			B
Creeping Potentilla / Spring Cinquefoil	Potentilla neumanniana 'Nana'	4	fs-psh	5 - 10 cm			■			D
Dead Nettle	Lamium sp.	3	fs-psh	10 - 30 cm			■			D
Honeysuckle	Lonicera sp.	4	fs-psh	spread 3+ m		■				D
Japanese Spurge	Pachysandra terminalis	5	fs-psh	15 - 20 cm			■			B
Kinnickinnick	Arctostaphylos uva-ursi	2	fs-psh	10 - 20 cm	■	■			🐝	B
Lily-turf	Liriope spicatum	4	fs-sh	20 - 30 cm			■			D
Perrenial Sweet Pea	Lathyrus latifolius	3	fs-psh			■				D
Pussytoes	Antennaria rosea	4	fs	10 - 30 cm		■	■			B
Sedum / Stonecrop (creeping)	Sedum sp.	3	fs-psh	5 - 30 cm	■				🐝	D
Silver Spreader	Artemisia caucasica	4	fs-psh	15 - 20 cm		■				B
Snow-In-Summer	Cerastium tomentosum	3	fs-psh	15 - 30 cm		■				B
Thrift	Armeria maritima	4	fs-psh	15 - 25 cm		■				B
Thyme	Thymus spp.	3 - 5	fs	1 cm		■				B
Trumpet Vine	Campsis radicans	4	fs	6 - 12 m			■			D
Virginia Creeper	Parthenocissus quinquefolia	3	fs-sh	9 - 15+ m		■	■			D
Wintercreeper	Euonymus fortunei	4	fs-sh	10 - 15 cm			■			N
Wintergreen	Gaultheria procumbens	3	fs-psh	15 cm			■			B

Turf Grasses		USDA Hardiness Zone(s)	Sun / Shade	Approx. Mature Height	Water Use Category				Attracts Pollinators
Common Name	**Scientific Name**				**Very Low**	**Low**	**Medium**	**High**	
Buffalograss	Buchloe dactyloides	4	fs	30 cm		■	■	■	
Fescue, Chewings	Festuca rubra commutata	3	fs-psh	10 cm				■	
Fescue, Creeping Red	Festuca rubra	5	fs-psh	5 - 7.5 cm				■	
Fescue, Sheep	Festuca ovina	4	fs	10cm		■			
Fescue, Tall	Festuca arundinacea	2	fs-psh	1.2 m			■	■	
Kentucky Bluegrass	Poa pratensis	3	fs-psh	10cm	Note: This species is in a category of it's own - it uses 890-1020 mm (35-40 inches) per year, almost double the High Category				
Perennial Ryegrass	Lolium perenne	5	fs	10 cm		■	■		

Ornamental Grasses		USDA Hardiness Zone(s)	Sun / Shade	Approx. Mature Height	Water Use Category				Attracts Pollinators
Common Name	Scientific Name				Very Low	Low	Medium	High	
Blue Grama Grass / Mosquito Grass	Bouteloua gracilis	3	fs	30 cm		■			
Bulrushes*	Scirpus spp.*	3	fs	1 - 1.5 m				■	
Fescue, Blue	Festuca cinerea	4	fs-psh	10 - 20 cm		■			
Junegrass	Koeleria macrantha	4	fs-psh	30 - 60 cm			■		
Muttongrass*	Poa fendleriana*	3	ps	30 - 60 cm		■			
Needle-and-thread Grass / Porcupine Grass*	Hesperpostipa comata*	3	psh	90 cm		■			
Orchardgrass	Dactylis glomerata	5	fs-psh	30 - 60 cm		■			
Ryegrass	Lolium spp.	4 - 6	fs	30 - 80 cm		■	■		
Sand Dropseed*	Sporobolus cryptandrus*	5	fs	1 m		■			
Sandberg Bluegrass*	Poa secunda*	2	fs	30 cm		■	■		
Sedges	Carex spp.	4 - 8	fs-psh	30 - 45 cm				■	
Squirreltail Grass*	Elymus elymoides*	3	ps	30 - 60 cm		■			
Wheatgrass, Crested	Agropyron cristatum	3	fs	50 - 100 cm	■				
Wheatgrass, Western*	Pascopyrum smithii*	5	fs	30 - 90 cm		■			

Perennials and Biennials		USDA Hardiness Zone(s)	Sun / Shade	Approx. Mature Height	Water Use Category				Attracts Pollinators
Common Name	Scientific Name				Very Low	Low	Medium	High	
Alfalfa	Medicago sativa	5	fs	100 cm		■			
Aster	Aster spp.	3	fs	0.15 - 1.8 m			■		
Balloon Flower	Platycodon grandiflorus	3	fs	75 - 90 cm			■		
Basket of Gold	Aurinia saxatalis	3	fs	20 - 45 cm		■	■		🐝
Beardtongue / Penstemon	Penstemon spp.	3	fs-psh	10 - 120 cm		■			
Beebalm (Native) / Wild Bergamot	Monarda fistulosa	3	fs-psh	30 - 60 cm		■			
Bergenia	Bergenia cordifolia	3	fs-psh	30 - 35 cm				■	
Black-eyed Susan	Rudbeckia fulgida	3	fs	60 - 90 cm			■		🐝
Blanket Flower	Gaillardia sp.	3	fs	20 - 90 cm		■			
Blue Vervain	Verbena hastata	3	fs	50 - 150 cm			■		🐝
Boneset	Eupatorium perfoliatum	3	fs-psh	50 - 100 cm			■		🐝

Perennials and Biennials		USDA Hardiness Zone(s)	Sun / Shade	Approx. Mature Height	Water Use Category				Attracts Pollinators
Common Name	Scientific Name				Very Low	Low	Medium	High	
Canadian Violet*	Viola canadensis*	3	fs-psh	30 cm				■	
Candytuft	Iberis sempervirens	3	fs	23 - 30 cm			■		
Catmint	Nepeta racemosa	3	fs	30 - 60 cm		■	■		🐝
Chives	Allium sp.	4	fs-psh	30 - 60 cm		■	■		
Columbine	Aquilegia sp.	3	fs-psh	25 - 90 cm			■		🐝
Common Harebell	Campanula rotundifolia	3	fs-psh	15 - 30 cm			■		
Coral Bells / Heuchera	Heuchera sanguinea	3	fs-psh	30 - 50 cm		■	■		
Coreopsis, Dwarf Mouse Ear	Coreopsis auriculata var. Nana	3	fs	30 - 60 cm		■			
Coreopsis, Tickseed	Coreopsis sp.	3	fs-psh	25 - 60 cm		■			
Cranesbill, Blood-red	Geranium sanguineum	3	fs-psh	10 - 30 cm			■		
Cranesbill, Grayleaf	Geranium cinereum	4	fs-psh	10 - 15 cm		■	■		
Cranesbill, Wild Geranium	Geranium maculatum	5	fs-psh	45 - 75 cm			■		
Cushion Spurge	Euphorbia epithymoides	3	fs	30 - 45 cm		■			
Daylily	Hemerocallis hybrids	3	fs-psh	30 - 120 cm		■	■		
Delphinium	Delphinium sp.	3	fs-psh	30 - 210 cm			■		
Dianthus / Garden Carnation / Pinks	Dianthus sp.	3	fs-psh	5 - 30 cm			■		
False Lupine	Thermopsis montana	3	fs-psh	60 - 90 cm			■		
False Rockcress	Aubrieta deltoidea	4	fs-psh	7.5 - 20 cm		■			
Fireweed*	Epilobium angustifolium*	3	fs-psh	60 - 90 cm		■			
Fleabane	Erigeron hybrids	4	fs	<30 cm		■			
Fringed Sage / Pasture Sage*	Artemisia frigida*	3	fs	30 - 60 cm	■				
Goldenrod*	Solidago canadensis*	3	fs	30-175 cm		■			🐝
Hen-and-chicks	Sempervivum sp.	4	fs-psh	5 - 15 cm	■		■		
Hollyhock	Alcea rosea	3	fs	120 - 180 cm			■	■	
Hosta / Plantain Lily	Hosta sp.	3	fs-psh	15 - 90 cm				■	
Ice Plant - Purple	Delosperma cooperi	5	fs-psh	2.5 - 10 cm		■			
Ice Plant - Yellow	Delosperma nubigenum	4	fs-psh	2.5 - 7.5 cm		■			
Indian Potato, Spring Beauty*	Claytonia lanceolata*	5	fs	15 - 45 m				■	
Iris	Iris hybrids	3	fs	40 - 60 cm		■	■		
Jacob's Ladder	Polemonium spp.	2	fs-psh	30 - 90 cm			■		
Joe Pye Weed	Eupatorium maculatum	5	fs-psh	1 - 1.5 m			■		
Lady's Mantle	Alchemilla sp.	3	ps	30 cm			■	■	
Lamb's Ears	Stachys byzantina	4	fs	30 - 38 cm		■	■		
Lavender	Lavandula sp.	4	fs	30 - 60 cm			■		🐝
Leopard's Bane	Doronicum sp.	4	fs-psh	30 - 60 cm			■		
Lily-of-the-valley	Convallaria majalis	2	sh	<30 cm				■	

Perennials and Biennials		USDA Hardiness Zone(s)	Sun / Shade	Approx. Mature Height	Water Use Category				Attracts Pollinators
Common Name	Scientific Name				Very Low	Low	Medium	High	
Lupine, Bigleaf*	Lupinus polyphyllus*	5	fs-psh	150 cm			■		🐝
Lupine, Russell Hybrids	Lupinus hybrids	4	fs-psh	45 - 120 cm			■		
Mariposa Lily*	Calochortus macrocarpus*	3	fs	50 cm		■			🐝
Mexican Hat / Prairie Coneflower	Ratibida columnifera	3	fs	60 cm			■		🐝
Missouri Goldenrod / Prairie Goldenrod / Smooth Goldenrod*	Solidago missourinesis*	3	fs	30 - 60 cm			■		🐝
Monkshood*	Aconitum spp.*	3	fs-psh	45 - 60 cm				■	
Moss Phlox	Phlox subulata	3	fs	10 - 15 cm			■		
Nepal Cinquefoil	Potentilla nepalensis	5	fs-psh	45 - 60		■			
Northern Bedstraw*	Galium boreale*	5	sh	<30 cm				■	
Old Man's Whiskers / Prairie Smoke*	Geum triflorum*	5	fs-psh	45 cm			■		
Oriental Poppy	Papaver orientale	3	fs-psh	60 - 90 cm			■		
Painted Daisy	Tanacetum coccineum	5	fs-psh	60 cm		■			
Pasque Flower	Pulsatilla patens	5	fs-psh	30 cm			■	■	
Pearly Everlasting	Anaphalis margaritacea	4	fs	20 - 90 cm		■			
Perennial Flax	Linum perenne	2	fs-psh	30 - 50 cm		■			
Perennial Salvia / Sage	Salvia spp.	3 - 5	fs	30 - 120 cm		■	■		🐝
Prickly Pear Cactus*	Opuntia polycantha*	3	fs	5 - 60 cm		■			
Primrose	Oenothera spp.	3	fs-psh	15 - 30 cm		■			
Purple Coneflower	Echinacea purpurea	3	fs	60 - 90 cm			■		🐝
Red Valerian	Centranthus ruber	4	fs-psh	60 - 75 cm		■			
Red-Hot Poker	Kniphofia uvaria	4	fs	30 - 120 cm		■	■		
Rockcress	Arabis sp.	3	fs	<30 cm			■		
Russian Sage	Perovskia atriplicifolia	4	fs	90 - 150 cm		■	■		🐝
Saxifrage	Saxifraga hirsuta	5	fs-psh	15 cm		■	■	■	
Scarlet Gilia*	Ipomopsis aggregata*	7	fs-psh	30 - 60 cm	■				
Sea Pinks	Armeria maritima	3	fs-psh	15 - 30 cm			■		
Sea-lavender / Statice	Limonium latifolium	4	fs	75 cm			■		
Sedum / Stonecrop (upright)	Sedum spectabile	3	fs-psh	30 - 45 cm		■			🐝
Sensitive Fern	Onoclea sensibilis	4	sh-psh	50 cm				■	
Shasta Daisy	Leucanthemum x superbum	4	fs-psh	60 - 90 cm		■	■		
Shooting Star	Dodecatheon meadia	4	sh-psh	50 cm				■	
Silver Lupine*	Lupinus argenteus*	3	ps	30 - 90 cm		■			
Soapwort	Saponaria sp.	2	fs	10 - 23 cm		■			
Strawberry, Wild*	Fragaria sp.*	5	fs	20 - 25 cm			■		
Sulphur Buckwheat / Sulphur Flower*	Eriogonum umbellatum*	4	fs	30 - 90 cm	■				🐝

Perennials and Biennials		USDA Hardiness Zone(s)	Sun / Shade	Approx. Mature Height	Water Use Category				Attracts Pollinators
Common Name	Scientific Name				Very Low	Low	Medium	High	
Speedwell / Veronica	Veronica spicata	3	fs-psh	2.5 - 15 cm					
Sun Rose	Helianthemum nummularium	3	fs-psh	30 - 50 cm					
Swamp Milkweed	Asclepias incarnata	3	fs-psh	1.2 m					
Virginia Bluebells	Mertensia virginica	3	ps	50 cm					
Wild Ginger, Winterfat*	Asarum caudatum*	7	ps	10 cm					
Windflower	Anemone blanda	5	fs-psh	15 - 30 cm					
Yarrow	Achillea sp.	4	fs	15 - 90 cm					
Yucca	Yucca filamentosa	4	fs-psh	60 - 90 cm					

Annuals		USDA Hardiness Zone(s)	Sun / Shade	Approx. Mature Height	Water Use Category				Attracts Pollinators
Common Name	Scientific Name				Very Low	Low	Medium	High	
Dusty Miller	Senecio cineraria	n/a	fs	30 - 60 cm					
Gazania	Gazania ringens	n/a	fs	20 - 40 cm					
Geranium	Geranium sp.	n/a	fs-psh	30 - 45 cm					
Lantana	Lantana sp.	n/a	fs	45 - 75 cm					
Pansy	Viola sp.	n/a	fs-psh	15 - 20 cm					
Salvia	Salvia spp.	n/a	fs	15 - 45 cm					
Snapdragon	Antirrhinum majus	n/a	fs	60 - 90 cm					
Sweet Pea	Lathyrus odoratus	n/a	fs-psh	2 m					

Bulbs		USDA Hardiness Zone(s)	Sun / Shade	Approx. Mature Height	Water Use Category				Attracts Pollinators
Common Name	Scientific Name				Very Low	Low	Medium	High	
Crocus	Crocus sp.	5 - 8	fs	6 - 14 cm					
Daffodil	Narcissus sp.	4	fs	30 - 60 cm					
Lily	Lilium sp.	4 - 5	fs-psh	60 - 180 cm					
Nodding Onion	Allium cernum	3	fs-psh	30 cm					
Society Garlic	Tulbaghia violacea	7	fs	30 cm					
Tulip	Tulipa sp.	4	fs-psh	15 - 90 cm					

Fire Hazards

Common Name	Scientific Name	High Risk	Higher Risk	Highest Risk	Leaf Type
Arborvitae (Cedar)	Thuja spp.				C
Broom	Genista spp.				B
Cedrus	Cedar spp.				C
Douglas Fir	Pseudotsuga menziesii				C
Firs	Abies spp.				C
Fountain Grass	Pennisetum spp.				
Holly	Ilex spp.				B
Juniper	Juniperus spp.				C
Pampas Grass	Cortaderia selloana				
Pine	Pinus spp.				C
Ponderosa Pine	Pinus ponderosa				C
Spruce	Picea spp.				C
Larch	Larix spp.				D
Yew	Taxus spp.				C

Comments:

Ponderosa Pine: Thicker bark helps to protect this tree.

Larch: Higher moisture content of foliage makes this tree slighlty less risky.

Legend

*Native plants that may not be commercially available. See page 21 for more information.

Water Use

Irrigation requirements during growing season:

Less than 350 mm (14")	
About 350-450 mm (14-18")	
About 450 mm+ (18"+)	
About 500 cm+ (20"+)	

Turfgrass is in a category all by itself. It uses 890 -1020 mm (35-40 inches) per year.
Most common component of turfgrass mix in BC: Kentucky Bluegrass (Poa pratensis)

Some plants fit into more than one water use category as they are more adaptable. For greatest success and efficient water use, group plants together with similar water requirements. Not all plants are suitable for every area. Check plant specific requirements.

Sun / Shade Preferences	
Full sun	fs
Full sun to part shade	fs-psh
Part sun	ps
Full shade	sh

Leaf Type	
Deciduous	D
Coniferous	C
Broadleaf Evergreen	B

Hardiness Zones

Hardiness describes a plant's tolerance of low temperatures; it does not refer to toughness or pest and disease resistance. For Canadian gardeners there are two relevant systems used for ranking hardiness: the Canadian system and the American system. This document lists the United States Department of Agriculture (USDA) Plant Hardiness Zones, which is based on average annual extreme minimum temperatures. The lower the zone number, the more cold tolerant the plant. The USDA system was chosen since most references for gardeners use these zones. However, the most detailed mapping for Canadians is on Agriculture Canada's Plant Hardiness site.

1. Determine your hardiness zone by

- Using Canada's Plant Hardiness Zones map in this brochure
- Using the online map: **planthardiness.gc.ca**
- Checking with your local garden centre or other experienced gardeners if the map is not detailed enough for you. For instance, you may be in an area where there are multiple zones due to elevation changes or microclimate conditions.

2. Convert your zone number

The general rule of thumb is that the Canadian hardiness number is one more than the USDA zone number. For example, if your Canadian hardiness number on the BC map is 5, then your USDA zone number would be 4. The rule of thumb is approximate since it is not an exact conversion.

Select plants that are equal to or lower than your zone number. For instance, if your Canadian zone number is 5, you can use any plant from Canadian zone numbers 0-5, or USDA zone numbers 0-4 as on the chart.

NOTE: The hardiness zones provided are meant only as a guide for cold survivability. Climate change should be kept in mind when using hardiness zones as these were determined using historical data. Due to the size of BC, the diversity of plant material, and variety of regional differentiation, this guide has not been broken up into regions. Users are encouraged to use their Plant Hardiness Zones.

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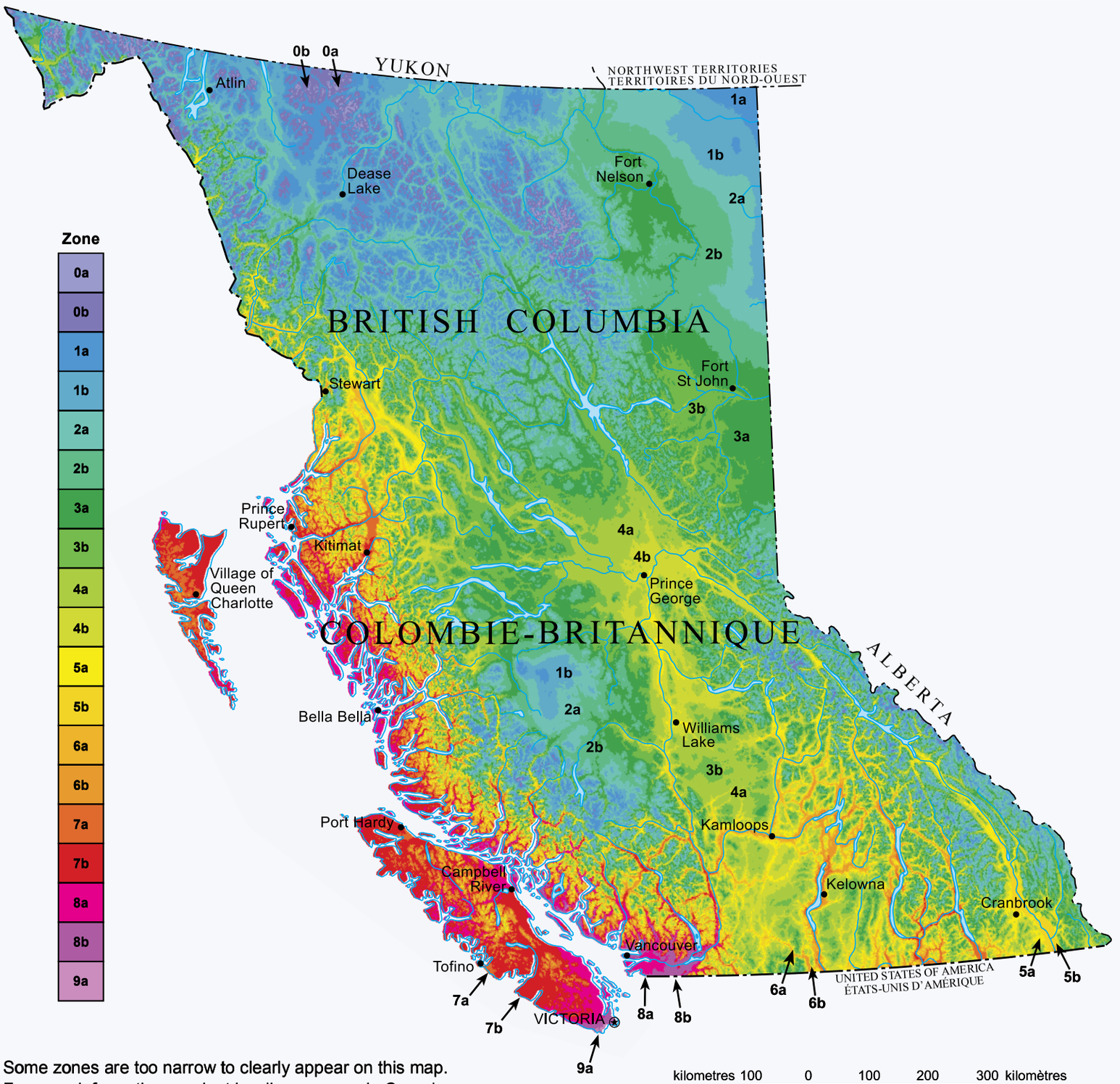
Plant Hardiness Zones of British Columbia
Zones de rusticité des plantes en Colombie-Britannique



kilometres 100 0 100 200 300 kilomètres

Scale 1:8 700 000 / Échelle 1/8 700 000
Lambert Conformal Conic Projection
Projection conique conforme de Lambert

Some zones are too narrow to clearly appear on this map. For more information on plant hardiness zones in Canada, please go to ***www.planthardiness.gc.ca***

Certaines zones sont trop étroites pour être clairement visibles sur cette carte. Pour obtenir de plus amples informations sur les zones de rusticité des plantes au Canada, visitez ***www.rusticitedesplantes.gc.ca***

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Canada

This worksheet is intended as a space where those working to support FireSmart planning and activities can work with members of their community. The important information collected here can help communities develop their own FireSmart practices. The tool can assist Indigenous knowledge to be captured locally by communities for their own territory.

Any information collected with this worksheet is intended only for use of the community or Nation (for their own purposes).

Topic	Community specific information to inform FireSmart planning and activities locally
Key knowledge holders	Identify knowledge keepers for your community: • Are there individuals (Elders) or groups (ie. Elders Council, Hereditary leaders, fire keepers) who hold Indigenous knowledge that should be considered in your community's FireSmart planning and practices? **[Identify]**
Traditional use of cultural burning and other practices on the land base	Explore the community's engagement with traditional/cultural burning: • Does the community currently engage traditional or cultural burning as a tool for fire mitigation? • Has the community historically used traditional or cultural burning? • Are there "fire keepers" or individuals within the community with knowledge and/or experiences doing traditional/cultural burning?
Culturally important plants and sensitive areas	Explore what specific plants are culturally important and important for food security for the community: • What plants are culturally important to the community? **[List all]** • What culturally important plants are linked to food security for the community? **[List all]** • Are there culturally important areas the community is working to protect? **[Identify all]** • Are there important knowledge holders with key information for the consideration of the community's FireSmart planning and practices? **[Identify all]**
FireSmart plants that are local to the community or territory	Explore local plants that are considered "FireSmart": • What plants are both local and FireSmart? **[List]**
Community fire mitigation practices	Explore existing or past fire mitigation practices: • What fire mitigation practices have the community undertaken in the past/currently?

Please use this space for the adjacent worksheet or to enter your own fire-resistant plant knowledge, share your local stories, or capture what works for your home and community.

Where to go for more information

BC Wildfire Service
www.bcwildfire.ca

Canada's Plant Hardiness Site
www.planthardiness.gc.ca

Canadian Red Cross
www.redcross.ca

Drought Smart Plants
www.drought-smart-plants.com

Emergency Management BC
www.emergencyinfobc.gov.bc.ca

Fire Safe Marin
www.firesafemarin.org/plants

FireSmart BC
www.firesmartbc.ca

FireSmart Canada
www.firesmartcanada.ca

Master Gardeners Association of BC
www.mgabc.org

Native Plants PNW
www.cwfis.cfs.nrcan.gc.ca

Natural Resources Canada
www.nativeplantspnw.com

Prepared BC
www2.gov.bc.ca/gov/content/safety

Tree Canada
www.treecanada.ca

References and Additional Resources

www.wildernesscommittee.org
www.feedthebees.org
www.borderfreebees.com
www.plants.usda.gov
www.geog.ubc.ca

Manual of Woody Landscape Plants
Michael A. Dirr, Stipes Publishing 2009

Trees in Canada
John Laird Farrar, Fitzhenry & Whiteside Limited and Canadian Forest Service 2000

Plants of Southern Interior British Columbia and the Inland Northwest
Roberta Parish, Ray Coupe and Dennis Lloyd, Lone Pine Publishing 1996

Xeriscape Gardening – Water Conservation for the American Landscape
Connie Lockhart Ellefson, Thomas L. Stephens, Doug Walsh, Ph.D., Macmillan Publishing Company 1992

Creating the Prairie Xeriscape
Sarah Williams, Lone Pine Publishing 1997

Xeriscape Plant Guide, Denver Water Guide
Fulcrum Publishing 1996

WUCOLS IV: Water Use Classification of Landscape Species
L.R. Costello and K.S Jones, University of California 2014

Together we can build a FireSmart BC.
Happy landscaping!

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Please take into consideration the risk of wildfire to your individual property and follow all FireSmart landscaping best practices.

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