FireSmart Guide to Landscaping

Design support provided by:

Government
of Alberta

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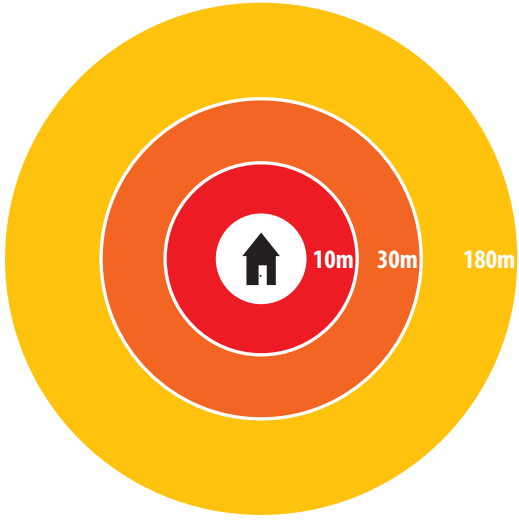
Protect Your Home From Wildfire

Wildland fires are a natural part of most wildland ecosystems in Canada. An increasing number of homes are built in or on the boundary of these wildland areas– this is known as the wildland/urban interface. Homeowners building and living in the wildland/urban interface, must take special precautions to protect their lives and property.

FireSmart Priority Zones

The FireSmart program identifies 3 priority zones that must be managed to reduce the wildfire threat to your home. Priority Zones 1 and 2 are the most critical– this is known as the Home Ignition Zone (HIZ). Homeowners, builders and landscapers should focus on reducing the risks in the HIZ.



In addition to the actual building design and construction material used to construct your home, the type of plant material and the design of the landscape immediately adjacent to your home is a critical factor in determining the likelihood of your home surviving a wildfire. It is important to select fire resistant plant material and design your landscape to reduce the risk, while maintaining a functional and watersmart landscape appropriate to your growing zone.

What are Fire Resistant Plants?

Fire resistant plants are those that do not readily ignite from flame or other ignition sources. These plants can be damaged or even killed by fire; however, their foliage and stems do not significantly contribute to the fuel and fire intensity.

Characteristics of fire-resistant plants

- Moist, supple leaves
- Little dead wood and tendency not to accumulate dead material
- Water-like sap with little or no odour
- Low amount of sap or resin material

Characteristics of Highly Flammable Plant

- Contain fine, dry, dead material within the plant
- Plant stem, branches and leaves contain volatile waxes, terpenes or oils
- Leaves are aromatic
- Gummy, resinous sap with a strong odour
- Loose papery bark

* Avoid landscaping with highly flammable plants around your home.

Appropriate Plant Selection

Selecting the right plant for the right spot depends on a number of factors.

Choose the plants for your Hardiness Zones

When selecting plants for your landscape, ensure that you select plants that are appropriate to your area and hardiness zone. This indicates the ability of a plant to withstand an average minimum temperature. There are currently two systems used for classifying hardiness, the Canadian Hardiness Zone and the United States Department of Agriculture (USDA) Hardiness Zone System. This document uses the USDA system due to it's current extensive use by gardening enthusiasts, commercial horticulture and industry professionals.

The USDA system is comprised of zones based on the annual minimum temperatures; with zone 1 being the coldest zone and zone 11 being the warmest zone. These zones are displayed on a map covering all areas of North America

When choosing a plant, you want to pick a plant that falls within your zone or the next colder zone. For example, if you are in USDA zone 5, you can choose plants that are suitable for zones 1– 5.

The USDA system can be found online at http://www.usna.usda.gov/Hardzone/ushzmap.html

Plant Water Requirements

In many wildland/urban interface areas water usage is also an ongoing concern. In some areas, watering restrictions or bans during summer months are common. This raises the concern of increased wildfire risk due to dry landscape vegetation. Even in the driest regions of Canada , homeowners can conserve water, and have beautiful FireSmart landscapes.

Plan your Landscape for Water Use

There are many beautiful trees, shrubs and flowers with low water requirements that are also FireSmart (see the FireSmart plant list). If you choose FireSmart plants with higher water requirements, group them together so you can water your yard more efficiently.

Consider Xeriscaping

We all love beautiful surroundings. Xeriscaping is a method of gardening that doesn't sacrifice beauty to conserve water. In fact, if a landscape isn't attractive, then it isn't a xeriscape. The principles of xeriscaping can be applied to any landscape style and can be as plain or elaborate as desired.

Reasons to Xeriscape

The average Canadian uses 326 litres of water per day. In dry climates of Canada, summertime water usage can be as high as 2200 litres of water per person, per day! Eighty percent of the water consumed in the summer is used outdoors to water grass, hose driveways and to wash vehicles.

In addition to using less water, a xeriscape garden requires less weeding, fertilizing, pruning, mowing and pesticides.

Xeriscaping is Relative

Drier climates of Canada can receive as little as 200 mm of rainfall per year, while wetter areas can receive 1500 mm of precipitation, or more! So, plants that are considered xeriscape in some places may not be suitable in others

Turf and Water Use

A well maintained lawn can serve as an effective firebreak as part of your FireSmart landscape. Lawns can also add to the enjoyment of your yard, to property values, and help cool your home in the summer, reducing energy for air-conditioners. However, most lawns are much larger than required and consume high amounts of water in comparison to most other plantings.

- Take a look at your lawn and ask yourself these questions:
- How much of my lawn is actually walked or played on?
- Is it there because I don't know what else to do with that area?
- Are there areas that are difficult or dangerous to mow?

- Could sections of the lawn be replaced by groundcovers, shrubs or ornamental grasses that need less water and maintenance?
- Are there areas where hard surfaces like walkways or decks would make the living space more practical?

Caution: Bark Mulch and Pine Needle Mulch

Bark mulch , pine needle mulches and other plant-based mulches offer many benefits to gardens. However, these mulches are susceptible to ignition from wildfire embers or cigarettes, increasing the fire threat to your home. When landscaping against your home, consider using gravel mulch, rock mulch, or a combination of plant mulch and decorative rock mulch to reduce the risk.

Plant Exposure

Whether an area is sunny or shady, windy or protected, exposure will determine what plants will flourish where.

Landscape Value

Try to plant for year round interest and enjoyment by considering more than just flowers. Think about colour and texture of leaves, bark and fruit, along with overall branching and shape of various plants.

Maintenance

Plants vary greatly in the amount of care required to keep them looking attractive. Select plants that realistically meet your gardening time constraints.

Invasive and Noxious Plants

You can help prevent the establishment and spread of invasive plants in Canada by knowing what you're planting. If you are unsure, check with credible sources to confirm that you are not planting invasives.

Wildlife Conflicts and Your Landscape

In many wildland/urban interface areas most plants will attract wildlife. In most cases this does not result in conflict of high consequence. In some cases, however, it can result in very dangerous situations for both humans and wildlife. The most prominent example is that of human/bear conflicts. Consider these tips to reduce this conflict potential

Fruit Trees

- Pick fruit and allow it to ripen indoors or pick daily as it ripens. Do not allow windfall to accumulate on the ground.
- If you do not want the fruit, prune the tree vigorously to prevent blossoms or spray spring blossoms with a garden hose to knock them off.
- If you would like to make the fruit available to others, contact a local fruit exchange program or food bank.

Consider using electric fencing to protect your fruit trees.

If you no longer want to manage your tree, consider replacement with a native, non-fruit bearing variety.

Berry Bushes

- Berries should be picked as they ripen.
- Consider replacing your bushes with native, non-fruiting varieties if you do not want the fruit.

Consider using electric fencing to protect your fruit trees.

TREES		Hardiness Zone(s)	Sun / Shade	Approx. Mature Height	Water Use Category			
Scientific Name	Common Name				Very Low	Low	Medium	High
Acer circinatum *	Vine Maple	4	fs-psh	4.5 - 6 m			●	
Acer ginnala	Amur Maple	2	fs-psh	4.5 - 6 m			●	
Acer glabrum *	Rocky Mountain Maple	4	fs-psh	3 - 4.5 m			●	
Acer grandidentatum *	Big-tooth Maple	4	fs-psh	3 - 6 m			●	
Acer macrophyllum	Bigleaf Maple	5	fs	9 - 23 m				●
Acer palmatum	Japanese Maple	5 - 6	ps	4.5 - 7.5 m				●
Acer platanoides	Norway Maple	3	fs	12 - 15 m			●	●
Acer rubrum	Red Maple	3	fs	12 - 18 m				●
Acer saccharinum	Silver Maple	3	fs	15 - 21 m			●	●
Aesculus hippocastanum	Horsechestnut	3	fs	12 - 15 m			●	
Alnus rubra *	Red Alder	5	fs-psh	13 - 15 m			●	
Alnus tenuiflolia *	Mountain Alder	5	fs	6 - 7.5 m			●	
Amelanchier alnifolia	Saskatoon	4	fs-psh	2.5 - 3.5 m		●		
Arbutus menziesii *	Madrone	7	fs	6 - 30 m		●		
Betula occidentalis *	Water Birch	2	fs-sh	6 - 9 m				●
Betula spp.	Birch	2 - 9	fs	9 - 12 m				●
Carpinus betulus	Hornbeam	4	fs	12 - 18 m				●
Catalpa speciosa	Catalpa	4	fs	12 - 15 m			●	
Celtis occidentalis	Common Hackberry	2	fs-psh	12 - 15 m			●	
Cercis canadensis	Eastern Redbud	4	fs	7.5 - 10.5 m			●	
Cornus florida	Flowering Dogwood	5	fs	6 - 9 m				●
Crataegus spp.	Hawthorn	3 - 4	fs	4.5 - 6 m			●	
Fagus sylvatica	European Beech	4	fs	15 - 18 m				●
Fraxinus americana	White Ash	3	fs	12 - 18 m			●	
Fraxinus pennsylvanica	Green Ash	3	fs	12 - 18 m		●	●	●
Ginkgo biloba	Ginkgo, Maidenhair Tree	3	fs	15 - 25 m			●	

TREES		Hardiness Zone(s)	Sun / Shade	Approx. Mature Height	Water Use Category			
Scientific Name	Common Name				Very Low	Low	Medium	High
Gleditsia triacanthos	Honeylocust	3	fs	9 - 21 m		●		
Gymnocladus dioicus	Kentucky Coffee Tree	3	fs	12 - 15 m			●	
Juglans cinerea	Butternut	3	fs	12 - 18 m			●	
Juglans nigra	Black Walnut	4	fs	12 - 18+ m			●	
Koelreuteria paniculata	Golden Raintree	5	fs	9 - 12 m		●		
Laburnum watereri	Golden Chain Tree	5	fs-psh	3.5 - 4.5 m			●	
Larix occidentalis	Western Larch	4	fs	30 - 55 m			●	
Liquidambur styraciflua	Sweetgum	5	fs	18 - 23 m			●	
Liriodendron tulipifera	Tulip Tree	4	fs	21 - 27 m				●
Maackia amurensis	Amur Maackia	3	fs	6 - 9 m			●	
Malus spp.	Crab Apple - Ornamental	4 - 8	fs-psh	4.5 - 6 m		●	●	
Morus alba	Mulberry	4	fs-psh	9 - 15 m			●	
Nyssa sylvatica	Blackgum, Black Tupelo	3	fs-psh	9 - 15 m				●
Phellodendron amurense	Amur Corktree	3	fs	9 - 14 m				●
Pinus nigra	Austrian Pine	4	fs	15 - 18 m			●	
Pinus ponderosa	Ponderosa Pine	3	fs	18 - 30 m	●			
Platanus acerifolia	London Planetree	4	fs-psh	21 - 30 m			●	
Platanus racemosa	Western or California Sycamore	7	fs	12 - 24 m			●	
Populus spp. *	Cottonwood	2 - 3	fs	40 m			●	
Populus tremuloides	Trembling Aspen, Quaking Aspen	1	fs-psh	9 - 12 m			●	●
Prunus cerasifera	Flowering Plum	4	fs	4.5 - 9 m		●		
Prunus maackia	Amur Cherry	2	fs-psh	10.5 - 13.5 m			●	
Prunus padus commutata	Mayday Tree	3	fs-psh	9 - 12 m			●	
Prunus serotina	Black Cherry	3	fs-psh	15 - 18 m			●	
Prunus virginiana	Chokecherry	2	fs	6 - 9 m			●	

Prunus virginiana 'Schubert'	Schubert Chokecherry	3	fs-psh	6 - 9 m			●	
Pyrus spp.	Pear	3 - 8	fs	9 - 15 m			●	
Quercus alba	White Oak	3	fs	15 - 25 m				●
Quercus falcata	Southern Red Oak	7	fs	21 - 24 m				●
Quercus garryana *	Garry Oak	6	fs	12 - 27 m				●
Quercus macrocarpa	Bur Oak	2	fs	21 - 24 m			●	
Quercus palustris	Pin Oak	4	fs	15 - 21 m			●	
Quercus rubra	Red Oak	4	fs	18 - 23 m			●	
Rhus copallina	Shining Sumac	4	fs	8 m		●		
Rhus typhina	Staghorn Sumac	3	fs-psh	4.5 - 7.5 m		●	●	
Robinia psheudoacacia 'Purple Robe'	Purple Robe Locust	3	fs	9 - 12 m		●		
Salix babylonica	Weeping Willow	5	fs	9 - 12 m				●
Sassafras albidum	Sassafras	4	fs-psh	9 - 18 m				●
Sophora japonica	Japanese Pagoda Tree	4	fs-psh	15 - 21 m			●	
Sorbus aucuparia	European Mountain Ash	3	fs-psh	6 - 9 m		●	●	
Sorbus scopulina *	Western Mountain Ash	2 - 4	fs-psh	15 - 25 m				●
Tilia spp.	Linden						●	●

SHRUBS		Hardiness Zone(s)	Sun / Shade	Approx. Mature Height	Water Use Category			
					Very Low	Low	Medium	High
Scientific Name	**Common Name**							
Amelanchier sp.	Saskatoon, Serviceberry	4	fs-psh	2.5 - 3.5 m		●		
Amorpha fruticosa *	False Indigo, Indigobrush	4	fs-psh	4.5 m			●	
Aronia spp.	Chokeberry	3 - 4	fs-psh	1.8 - 3 m			●	
Atriplex sp. *	Saltbrush	6	fs	0.9 - 1.8 m	●			
Berberis sp.	Barberry	4 - 9	fs	0.45 - 1.5 m		●		
Buddleia sp.	Butterfly Bush	5	fs	3 - 4.5 m			●	
Caluna vulgaris	Heather	4	fs-psh	10 - 60 cm			●	
Caragana arborescens	Siberian Peashrub	2	fs-psh	4.5 - 6 m	●	●		

SHRUBS		Hardiness Zone(s)	Sun / Shade	Approx. Mature Height	Water Use Category			
Scientific Name	Common Name				Very Low	Low	Medium	High
Caryopteris x clandonensis	Blue-mist Spirea	5	fs-psh	0.90 - 1.5 m		●		
Ceanothus gloriosus	Point Reyes Ceanothus	7	fs-psh	30 - 90 cm		●		
Ceanothus ovatus	Ceanothus	4	fs-psh	60 - 90 cm		●		
Ceanothus prostratus *	Mahala Mat	5	fs	2.5 - 7.5 cm		●		
Ceanothus spp.	Snowbrush, Buckbrush, Sticky Laurel	4	fs-psh	0.5 - 3 m		●		
Chaenomeles spp.	Quince	4	fs-psh	0.6 - 3 m			●	
Chrysothamnus spp.	Rabbitbrush, Rabbitbush	3	fs	1 m	●			
Cistus purpureus	Orchid Rockrose	8	fs	0.90 - 1.20 m		●		
Cornus sericea	Red-twig Dogwood, Redosier Dogwood	2	fs	2.1 - 3 m		●	●	●
Corylus cornuta *	Beaked Hazelnut, Filbert	4	fs-psh	1.2 - 2.4 m		●		
Cotinus coggygria	Smoke Tree	4	fs	3 - 4. 5 m		●		
Cotoneaster acutifolius	Cotoneaster, Peking	4	fs-psh	1. 8 - 3 m		●	●	
Cotoneaster apiculatus	Cotoneaster, Cranberry	4	fs-psh	90 cm			●	
Daphne x burkwoodii	Daphne, Carol Mackie	4	fs-psh	0.60 - 1.2 m			●	
Elaeagnus commutata	Silverberry	2	fs	1. 8 - 3.5 m		●		
Euonymus alatus 'Compactus'	Burning Bush	4	fs-psh	1.2 - 1.8 m				●
Forsythia spp.	Forsythia	4 - 5	fs	2.5 - 3 m		●	●	
Gaultheria shallon	Salal	6	fs-psh	0.30 - 3 m				●
Hamamelis spp.	Witchhazel	3 - 5	fs-psh	1.8 - 9 m			●	
Hibiscus syriacus	Rose of Sharon	5	fs-psh	2.5 - 3.5 m			●	
Holodiscus discolor	Oceanspray	5	fs-psh	1.8 - 2.7 m			●	
Hydrangea quercifolia	Oakleaf Hydrangea	5	fs-psh	1.2 - 1.8 m			●	
Kerria japonica	Japanese Kerria	4	ps	0.9 - 1.8 m			●	
Ligustrum spp.	Privet	3-8	fs-psh	1.8 - 4.5 m			●	
Lonicera tatarica	Tatarian Honeysuckle	3	fs-psh	3 - 3.5 m			●	

SHRUBS		Hardiness Zone(s)	Sun / Shade	Approx. Mature Height	Water Use Category			
Scientific Name	Common Name				Very Low	Low	Medium	High
Mahonia aquifolium	Oregon Grape	3	fs-psh	1.5 - 1.8 m		●	●	
Mahonia repens	Creeping Holly	3	fs-psh	30 - 45 cm			●	
Paxistima myrtifolia	Oregon Boxwood	5	fs-psh	0.30 - 1.2 m				●
Philadelphus sp.	Mock Orange	4	fs-psh	1.8 - 2.4 m		●	●	
Physocarpus opulifolius	Ninebark	2	fs-psh	1.5 - 3 m		●	●	
Potentilla fruticosa	Potentilla, Cinquefoil	2	fs-psh	0.3 - 1.2 m		●		
Prunus besseyi	Western Sandcherry	3	fs-psh	1.2 - 1.8 m			●	
Prunus cistena	Purple-Leaf Sand Cherry	2	fs-psh	2 - 3 m			●	
Prunus tomentosa	Nanking Cherry	2	fs-psh	1.8 - 3 m			●	
Prunus triloba	Flowering Almond / Double Flowering plum	3	fs-psh	3.5 - 4.5 m		●	●	
Prunus virginiana melanocarpa*	Western Chokecherry	2	fs-psh	5.5 - 7.5 m			●	
Purshia tridentata *	Antelope Bitterbrush	3	fs	1 - 2 m			●	
Pyracantha coccinea	Firethorn / Pyrcantha	6	fs-psh	1.8 - 5.5 m			●	
Rhamnus frangula	Tallhedge Glossy Buckthorn	2	fs-psh	2.5 - 3.5 m			●	
Rhododendron macrophylum*	Pacific Rhododendron	6	fs-psh	1.8 - 3.6 m				●
Rhododendron occidentale	Western Azalea	6	fs-psh	1.5 m				●
Rhus aromatica	Fragrant Sumac	3	fs-psh	0.6 - 1.8 m	●			
Rhus glabra	Smooth Sumac	2	fs-psh	2.75 - 4.5 m		●		
Rhus trilobata *	Sumac, Skunkbrush	4	fs-psh	0.9 - 1.8 m		●		
Ribes alpinum	Alpine Currant	2	fs-psh	0.90 - 1.8 m		●	●	
Rosa rugosa 'Hansa'	Rugosa Rose	2	fs-psh	1.5 - 1.8 m		●	●	
Rosa woodsii *	Wood's Rose	4	fs-psh	0.90 - 1.8 m			●	
Rubus sp.	Raspberry	3 - 5	fs-psh	2 - 150 cm			●	
Salix spp.	Willow e.g. Blue Fox	2	fs	1.8 - 3 m				●
Sambucus spp.	Elderberry	3 - 5	fs-psh	1.5 - 9 m		●		

Santolina chamaecyparissus	Santolina, Grey Lavender, Lavender Cotton	6	fs	30 - 60 cm		●		
Shepherdia spp.	Buffaloberry	2	fs	1.8 - 3.0 m	●			
Spirea alba *	Meadowsweet	3	fs-sh	0.9 - 1.8 m			●	
Spiraea douglasii	Western Spirea, Hardhack	4	fs-psh	0.90 - 1.8 m			●	
Spiraea spp.	Spirea	3	fs-psh	0.60 - 1.2 m		●	●	
Symphoricarpos albus	Snowberry	3	fs-psh	1.2 - 1.8 m		●		
Syringa vulgaris	Common Lilac	3	fs-psh	1.5 - 4.5 m		●	●	
Vaccinum spp.	Blueberry	2 - 8	fs-psh	0.15 - 3.5 m			●	
Viburnum acerifolium	Maple Leaf Viburnum	3	sh	1.2 - 1.8 m			●	
Viburnum edule *	High-bush Cranberry	5	fs	1.8 - 2.5 m			●	
Viburnum trilobum	Cranberry Bush	2	fs-psh	1.2 - 3.5 m			●	

VINES AND GROUNDCOVER		Hardiness Zone(s)	Sun / Shade	Approx. Mature Height	Water Use Category			
					Very Low	Low	Medium	High
Scientific Name	**Common Name**							
Ajuga reptans	Carpet Bugle	4	fs-psh	10 - 25 cm			●	
Antennaria rosea	Pussytoes	4	fs	10 - 30 cm		●	●	
Arctostaphylos uva-ursi	Kinnickinnick	2	fs-psh	10 - 20 cm	●	●		
Armeria maritima	Thrift	4	fs-psh	15 - 25 cm		●		
Artemisia caucasica	Silver Spreader	4	fs-psh	15 - 20 cm		●		
Artemisia stelleriana	Beach Wormwood, Dusty Miller	3	fs	20 cm		●		
Campshis radicans	Trumpet Vine	4	fs	6 - 12 m			●	
Cerastium tomentosum	Snow-In-Summer	3	fs-psh	15 - 30 cm		●		
Clematis spp.	Clematis	3 - 5	ps	1.5 - 1.8 m				●
Cotoneaster dammeri	Cottoneaster, Bearberry	5	fs-psh	30 - 45 cm			●	
Cotoneaster horizontalis	Cotoneaster, Horizontalis	4	fs-psh	60 - 90 cm			●	
Duchesnea indica	Mock Strawberry	5	fs-psh	<15 cm		n/a		
Euonymus fortunei	Wintercreeper	4	fs-sh	10 - 15 cm			●	

Gaultheria procumbens	Wintergreen	3	fs-psh	15 cm			●	
Lamium sp.	Dead Nettle	3	fs-psh	10 - 30 cm			●	
Lathyrus latifolius	Perrenial Sweet Pea	3	fs-psh			●		
Liriope spicatum	Lily-turf	4	fs-sh	20 - 30 cm			●	
Lonicera sp.	Honeysuckle	4	fs-psh	spread 3+m		●		
Pachysandra terminalis	Japanese Spurge	5	fs-psh	15 - 20 cm			●	
Parthenocissus quinquefolia	Virginia Creeper	3	fs-sh	9 - 15+ m		●	●	
Potentilla neumanniana 'Nana'	Spring Cinquefoil, Creeping Potentilla	4	fs-psh	5 - 10 cm			●	
Rosa setigera	Climbing Rose	4	fs-psh	1.0 - 4.5 m			●	
Sedum sp.	Stonecrop, Sedum (creeping)	3	fs-psh	5 - 30 cm	●			
Thymus praecox	Creeping Thyme	3 - 4	fs-psh	2.5 - 10 cm		●	●	
Thymus pseudolanuginosus	Wooly Thyme	3	fs	7.5 - 10 cm		●		
Thymus spp.	Thyme	3 - 5	fs	1 cm		●		
Vinca major	Large Periwinkle	7	ps-sh	30 - 45 cm			●	
Vinca minor	Periwinkle	3	fs - sh	7 - 15 cm			●	

GRASSES		Hardiness Zone(s)	Sun / Shade	Approx. Mature Height	Water Use Category			
					Very Low	Low	Medium	High
Scientific Name	**Common Name**							
Agropyron cristatum	Wheatgrass, Crested, Western	3	fs	50 - 100 cm	●			
Bouteloua gracilis	Mosquito Grass, Blue Grama Grass	3	fs	30 cm	●	●		
Buchloe dactyloides	Buffalograss	4	fs	30 cm		●	●	●
Carex spp.	Sedges	4 - 8	fs-psh	30 - 45 cm				●
Dactylis glomerata *	Orchardgrass	5	fs-psh	30 - 60 cm		●		
Elymus elymoides *	Squirreltail Grass	3	ps	30 - 60 cm		●		
Festuca arundinacea	Fescue, Tall	2	fs-psh	1.2 m			●	●
Festuca cinerea	Fescue, Blue	4	fs-psh	10 - 20 cm		●		
Festuca rubra	Fescue, Creeping Red	5	fs-psh	5 - 7.5 cm				●

Koeleria macrantha	Junegrass	4	fs-psh	30 - 60 cm			●	
Lolium spp.	Ryegrass	4 - 6	fs	30 - 80 cm		●	●	
Pascopyrum smithii *	Western Wheatgrass	5	fs	30 - 90 cm		●		
Poa fendleriana *	Muttongrass	3	ps	30 - 60 cm			n/a	
Poa secunda *	Sandberg Bluegrass	2	fs	30 cm			n/a	
Scirpus atrovirens *	Bulrushes	3	fs	1 - 1.5 m			n/a	
Sporobolus cryptandrus *	Sand Dropseed	5	fs	1 m			n/a	
Heterostipa comata *	Porcupine Grass, Needle-and-thread Grass	3	psh	90 cm		●		

PERENNIALS AND BIENNIALS

Scientific Name	Common Name	Hardiness Zone(s)	Sun / Shade	Approx. Mature Height	Water Use Category: Very Low	Low	Medium	High
Achillea sp.	Yarrow	4	fs	15 - 90 cm	●			
Aconitum spp. *	Monkshood	3	fs-psh	45 - 60 cm				●
Alcea rosea	Hollyhock	3	fs	120 - 180 cm			●	●
Alchemilla sp.	Lady's Mantle	3	ps	30 cm			●	
Allium sp.	Chives	4	fs-psh	30 - 60 cm		●	●	
Anaphalis margaritacea	Pearly Everlasting	4	fs	20 - 90 cm		●		
Anemone blanda	Windflower	5	fs-psh	15 - 30 cm			●	
Aquilegia sp.	Columbine	3	fs-psh	25 - 90 cm			●	
Arabis sp.	Rockcress	3	fs	<30cm			●	
Armeria maritima	Sea Pinks	3	fs-psh	15 - 30 cm			●	
Artemisia frigida *	Pasture Sage, Fringed Sage	3	fs	30 - 60 cm	●			
Asarum caudatum *	Wild Ginger, Winterfat	7	ps	10 cm			●	
Asclepias incarnata	Swamp Milkweed	3	fs-psh	1.2 m			●	
Aster puniceus *	Swamp Aster	2	fs-psh	50 - 100 cm			●	
Aster spp.	Aster	3	fs	0.15 - 1.8 m			●	
Aubrieta deltoidea	False Rockcress	4	fs-psh	7.5 - 20 cm		●		
Aurinia saxatalis	Basket of Gold	3	fs	20 - 45 cm		●	●	

PERENNIALS AND BIENNIALS		Hardiness Zone(s)	Sun / Shade	Approx. Mature Height	Water Use Category			
Scientific Name	Common Name				Very Low	Low	Medium	High
Bergenia cordifolia	Bergenia	3	fs-psh	30 - 35 cm				●
Campanula rotundifolia	Common Harebell	3	fs-psh	15 - 30 cm			●	
Centranthus ruber	Red Valerian	4	fs-psh	60 - 75 cm		●		
Claytonia lanceolata *	Spring Beauty	5	fs	15 - 45 m				●
Convallaria majalis	Lily-of-the-valley	2	sh	<30 cm				●
Coreopsis auriculata var. Nana	Coreopshis, Dwarf Mouse Ear	3	fs	30 - 60 cm		●		
Coreopsis sp.	Coreopshis, Tickseed	3	fs-psh	25 - 60 cm		●		
Delosperma cooperi	Ice Plant - Purple	5	fs-psh	2.5 - 10 cm		●		
Delosperma nubigenum	Ice Plant - Yellow	4	fs-psh	2.5 - 7.5 cm		●		
Delphinium sp.	Delphinium	3	fs-psh	30 - 210 cm			●	
Dianthus sp.	Dianthus, Garden Carnation, Pinks	3	fs-psh	5 - 30 cm			●	
Dodecatheon meadia	Shooting Star	4	sh-psh	50 cm				●
Doronicum sp.	Leopard's Bane	4	fs-psh	30 - 60 cm			●	
Echinacea purpurea	Purple Coneflower	3	fs	60 - 90 cm			●	
Epilobium angustifolium *	Fireweed	3	fs-psh	60 - 90 cm		●		
Erigeron hybrids	Fleabane	4	fs	<30 cm		●		
Erysimum asperum *	Western Wallflower	3	fs-psh	30 cm			●	
Eupatorium maculatum	Joe Pye Weed	5	fs-psh	1 - 1.5 m			●	
Eupatorium perfoliatum	Boneset	3	fs-psh	50 - 100 cm			●	
Euphorbia epithymoides	Cushion Spurge	3	fs	30 - 45 cm		●		
Fragaria sp. *	Strawberry, Wild	5	fs	20 - 25 cm			●	
Gaillardia sp.	Blanket Flower	3	fs	20 - 90 cm		●		
Galium boreale *	Northern Bedstraw	5	sh	<30 cm				●
Geranium cinereum	Cranesbill, Grayleaf	4	fs-psh	10 - 15 cm		●	●	
Geranium maculatum	Cranesbill, Wild Geranium	5	fs-psh	45 - 75 cm			●	

PERENNIALS AND BIENNIALS

Scientific Name	Common Name	Hardiness Zone(s)	Sun / Shade	Approx. Mature Height	Water Use Category: Very Low	Low	Medium	High
Geranium sanguineum	Cranesbill, Blood-red	3	fs-psh	10 - 30 cm			●	
Geum triflorum *	Old Man's Whiskers, Prairie Smoke	5	fs-psh	45 cm			●	
Helianthemum nummularium	Sun Rose	3	fs-psh	30 - 50 cm		●		
Hemerocallis hybrids	Daylily	3	fs-psh	30 - 120 cm		●	●	
Heuchera sanguinea	Coral Bells, Heuchera	3	fs-psh	30 - 50 cm		●	●	
Hosta sp.	Hosta, Plantain Lily	3	fs-psh	15 - 90 cm				●
Iberis sempervirens	Candytuft	3	fs	23 - 30 cm			●	
Ipomopsis aggregata *	Scarlet Gilia	7	fs-psh	30 - 60 cm	●			
Iris hybrids	Iris	3	fs	40 - 60 cm		●	●	
Iris missouriensis *	Rocky Mountain Iris	3	fs	30 - 60 cm			●	
Kniphofia uvaria	Red-Hot Poker	4	fs	30 - 120 cm		●	●	
Lavandula sp.	Lavender	4	fs	30 - 60 cm			●	
Leucanthemum x superbum	Shasta Daisy	4	fs-psh	60 - 90 cm		●	●	
Leucocrinum montanum *	Sand Lily, Star Lily	6	fs	<30 cm		n/a		
Liatris puncata *	Dotted Gayfeather	3	fs	30 - 60 cm				
Limonium latifolium	Sea-lavender, Statice	4	fs	75 cm			●	
Linum perenne	Perennial Flax	2	fs-psh	30 - 50 cm		●		
Lupinus argenteus *	Silver Lupine	3	ps	30 - 90 cm		●		
Lupinus hybrids	Lupine, Russell Hybrids	4	fs-psh	45 - 120 cm			●	
Medicago sativa	Alfalfa	5	fs	100 cm		n/a		
Mertensia lanceolata *	Narrow-leaved Chiming Bells	3	ps	30 - 60 cm		n/a		
Mertensia virginica	Virginia Bluebells	3	ps	50 cm				●
Monarda fistulosa	Wild Bergamot, Native Beebalm	3	fs-psh	30 - 60 cm		●		
Nepeta racemosa	Catmint	3	fs	30 - 60 cm		●	●	
Oenothera spp.	Primrose	3	fs-psh	15 - 30 cm		●		

PERENNIALS AND BIENNIALS

Scientific Name	Common Name	Hardiness Zone(s)	Sun / Shade	Approx. Mature Height	Water Use Category: Very Low	Low	Medium	High
Onoclea sensibilis	Sensitive Fern	4	sh-psh	50 cm				●
Opuntia polycantha *	Prickly Pear Cactus	3	fs	5 - 60 cm		●		
Papaver orientale	Oriental Poppy	3	fs-psh	60 - 90 cm			●	
Penstemon spp.	Penstemon, Beardtongue	3	fs-psh	10 - 120 cm		●		
Perovskia atriplicifolia	Russian Sage	4	fs	90 - 150 cm		●	●	
Phlox subulata	Moss Phlox	3	fs	10 - 15 cm			●	
Platycodon grandiflorus	Balloon Flower	3	fs	75 - 90 cm			●	
Polemonium spp.	Jacob's Ladder	2	fs-psh	30 - 90 cm			●	
Potentilla fissa *	Bigflower Cinquefoil, Leafy Potentilla	4	ps	30 cm		n/a		
Potentilla nepalensis	Nepal Cinquefoil	5	fs-psh	45 - 60		●		
Pulsatilla patens	Pasque Flower	5	fs-psh	30 cm			●	●
Ratibida columnifera	Prairie Coneflower, Mexican Hat	3	fs	60 cm			●	
Rudbeckia fulgida	Black-eyed Susan	3	fs	60 - 90 cm			●	
Salvia spp.	Sage, Perennial Salvia	3 - 5	fs	30 - 120 cm		●	●	
Saponaria sp.	Soapwort	2	fs	10 - 23 cm		●		
Saxifraga hirsuta	Saxifrage	5	fs-psh	15 cm			●	●
Sedum spectabile	Stonecrop, Sedum (upright)	3	fs-psh	30 - 45 cm		●		
Sempervivum sp.	Hen-and-chicks	4	fs-psh	5 - 15 cm	●			
Solidago missourinesis *	Prairie Goldenrod, Missouri Goldenrod, Smooth Goldenrod	3	fs	30 - 60 cm			●	
Stachys byzantina	Lamb's Ears	4	fs	30 - 38 cm		●	●	
Tanacetum coccineum	Painted Daisy	5	fs-psh	60 cm		●		
Thermopsis montana	False Lupine	3	fs-psh	60 - 90 cm			●	
Tradescantia occidentalis *	Prairie Spiderwort, Western Spiderwort	4	fs-psh	45 cm		●		

Verbena hastata	Blue Vervain	3	fs	50 - 150 cm			●	
Veronica spicata	Veronica, Speedwell	3	fs-psh	2.5 - 15 cm			●	
Viola canadensis *	Canadian Violet	3	fs-psh	30 cm				●
Waldsteinia sp. *	Barren Strawberry	4	ps	<30 cm		n/a		
Yucca filamentosa	Yucca	4	fs-psh	60 - 90 cm	●			

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

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

LEGEND INFO

* NATIVE PLANTS THAT MAY NOT BE COMMERCIALLY AVAILABLE

Irrigation requirements during growing season:

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

Some plants fit into more than one water use category as they are more adaptable.

SUN/SHADE

Prefers full sun	fs
Prefers full sun to part shade	fs-psh
Part sun	ps
Prefers full shade	sh

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.

Turfgrass is in a category all itself - it uses 890 - 1020 mm (35-40 inches) per year.

Poa pratensis	Kentucky Bluegrass

PLANTS TO AVOID

Scientific Name	Common Name
Cortaderia selloana	Pampas Grass
Genista sp.	Broom
Ilex spp.	Holly
Juniperus spp.	Juniper
Pennisetum spp.	Fountain Grass
Picea pungens	Colorado Spruce
Pinus sp.	Pine
Taxus spp.	Yew
Thuja spp.	Cedar, Arborvitae

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