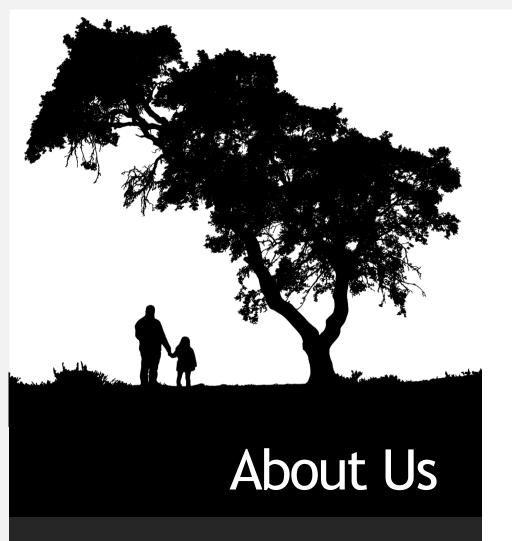
Choosing Tree Species

Toso Bozic P.Ag Tree Expert/ISA Arborist ATTS Group Inc/ Yard Whispers www.yardwhispers.ca



Trees are our Passion Yard Whispers is a leading tree, forestry and agroforestry consulting company that provides services for sustainable management of trees/forest on public and private lands

We offer services to:

- Residential and commercial business
- Golf course industry
- Municipal governments
- Parks and campgrounds
- Urban developers
- Legal and regulatory bodies
- Educational institutions
- NGO provincial, national and international

Yard Whispers is wholly owned subsidiary of ATTS Group Inc

Arborist Services

- Forensic Tree Expert for insurance and legal services
- Integrated Pest Management (IPM)- Tree pests ID, assessment and recommendation
- Tree Risk and Hazard Assessments (TRAQ Certified)
- Tree appraisal and value assessment
- Tree preservation and protection plan
- Tree planning and designs for acreage owners

Urban/Town Tree services

- Tree inventory for rural and urban areas
- Urban forest management plan
- Development of tree bylaws, policy and regulations

Natural forest management

- Woodlot management plans- harvesting and reforestation
- Tree/forest design, planting and species selection for reforestation and reclamation projects

Agroforestry Services

- Shelterbelts and windbreaks design
- Riparian and natural revegetation
- Biodiversity, wildlife and pollinators planting

Our Services

Key Messages

- Understand your soil prior your tree and shrub selection
- Understand water requirements
- Understand your microsite requirements wind, water flow, exposure
- Choose appropriate form and shape to fit your site
- Visit local tree nursery, botanical garden, park and neighbours
- Plant as many as possible trees and shrubs as you can
- Diversify, Diversify and Diversify
- There is no perfect tree or shrub



Diversity at Terry Krause place 64 species

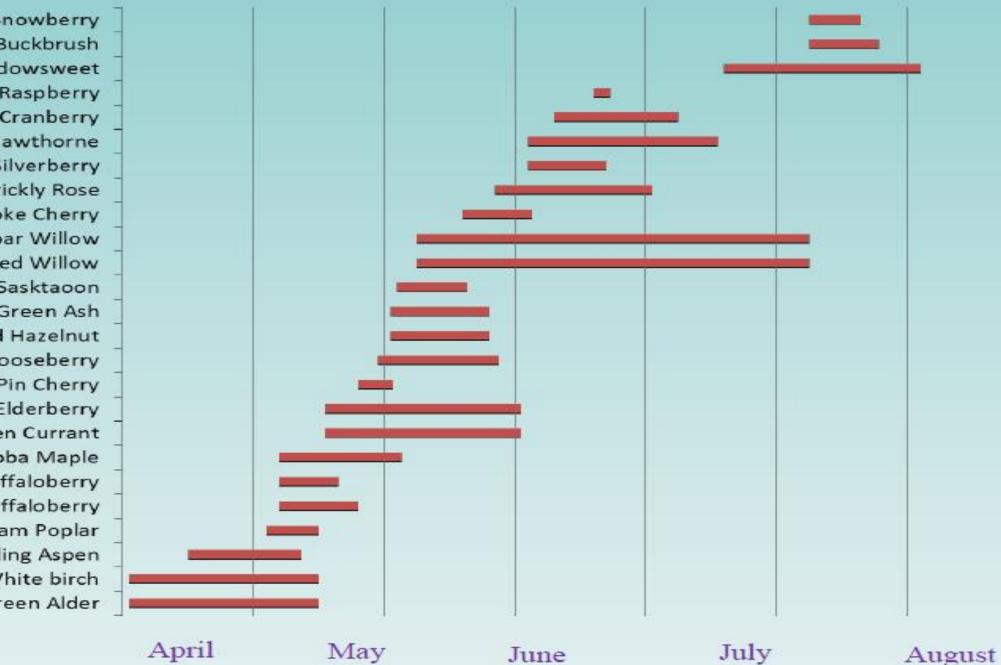
Snow Sweet Apple	Rescue Crab	Mock Orange	
Okanese Poplar	Northwest Poplar	Green Giant Poplar	
Brookred Plum	Double Flowering Plum	Elderberry	
Mugo Pine	Common Lilac	Vilosa Lilac	
Yellow Dogwood	Variegated Dogwood	Red Elder	
Evans Cherry	Carmine Jewel Cherry	Cupid Cherry	
Romeo Cherry	Juliette Cherry (all Romance Series but Carmine Jewel)		
Western Sandcherry	Mayday	Red Maple	
Snowball (vibernum)	Rowen Berry	Mountain Ash	
Alberta Spruce	Balsam Fir	Bird's Nest Spruce	
Native Gooseberry	Hedge Rose	American Elm	
Sharp Leaf Willow	Siberian Larch	Green Ash	
Red Maple	Saskatoon (smoky)	Siberian Elm	
Red Currant	5 Honeyberry Species (tundra, aurora, borealis +		
Raspberry – Red Mammoth	Paper Birch Pussy Willow		
Hazelnut	Cotoneaster Forsythia		
	Okanese Poplar Brookred Plum Mugo Pine Yellow Dogwood Evans Cherry Romeo Cherry Western Sandcherry Western Sandcherry Snowball (vibernum) Alberta Spruce Native Gooseberry Sharp Leaf Willow Red Maple Red Currant Raspberry – Red Mammoth	Okanese PoplarNorthwest PoplarBrookred PlumDouble Flowering PlumMugo PineCommon LilacYellow DogwoodVariegated DogwoodEvans CherryCarmine Jewel CherryRomeo CherryJuliette Cherry (all RomanceWestern SandcherryMaydaySnowball (vibernum)Rowen BerryAlberta SpruceBalsam FirNative GooseberryHedge RoseSharp Leaf WillowSiberian LarchRed MapleSaskatoon (smoky)Red Currant5 Honeyberry Species (tundRaspberry – Red MammothPaper Birch	

Habitat for native bees





Flowering Periods of Selected Deciduous Shrubs and Trees in Central Alberta



Snowberry Buckbrush Narrow-leaved Meadowsweet Red Raspberry High-bush Cranberry Hawthorne Silverberry **Prickly Rose Choke Cherry** Sandbar Willow **Beaked Willow** Sasktaoon Green Ash **Beaked Hazelnut** Gooseberry Pin Cherry **Red Elderberry** Golden Currant Manitoba Maple Silver Buffaloberry Canada Buffaloberry **Balsam Poplar Trembling Aspen** White birch Green Alder

Key factors to choose tree/shrubs species

- Soil types clay vs sand vs saline
- Moisture requirements Willow vs Caragana
- **Form and maturity size** pyramidal, round, columnar, etc
- Sun vs shade eg pine loves sun while spruce/fir likes shade
- Growth faster growth shorter life span
- **Flowers** None vs too many or colour of the flowers
- **Fruits** just for birds or for human consumption
- Maintenance low to baby sitting
- Wildlife none to bees, birds and ungulates
- Native vs introduced



Good tree at wrong place

Proximity to buildings, roads, power lines, dugouts, gardens, water/sewer systems



NETPlant Search Tools

- Every tree nursery in Alberta have this tool
- Very useful tool where you can really search trees, shrubs and perennials by variety of options
- http://search.eaglelakenurseries .com/11050003/

Plant Characteristics								
9			9					
	Height:	Any ⊖in ⊛ft		Spread:	Any ⊖in ⊛ft			
	Foliage Type:	··· v		Hardiness:	Zone Bai 🗸			
	Growth Rate:	v		Native Plant:	0			
Landscape Attributes								
9			9					
	Application:	···· v		Plant Form:	···· v			
	Texture:	···· v		Wildlife Attraction:	···· v			
	Deer Resistant:			Low Maintenance:	0			
	Winter Interest:	D						
		Ornamen	tal B	eatures				
<u>Ornamental Features</u> ∂								
	Flower Colour:	v		Flower Period:	v			
	Foliage Colour:	···· v		Variegation:	···· v			
	Fall Colour:	v		Fruit Colour:	v			
	Edible Value:	D		Bark Colour:	· · · V			
	Fragrant:	0		Cutflower:	0			
Site Conditions								
9			9					
	Sun/Shade:	· · · · · ·		Soil Type:	· · · · V			
	Soil Moisture:	···· v		Soil pH:	···· v			
	Pollution:	···· v		Xeriscape:	0			

Login

Canada Plant Hardiness Zone

"A hardiness zone is a geographical area defined to encompass a certain range of climatic conditions relevant to plant growth and survival" -Wikipedia

- Choose right tree and shrub that are hardy to survive cold and harsh climate
- Visit places such as arboretums, parks, town and city boulevard or private property where introduced trees and shrubs are surviving and thriving
- Choosing the right plant for the right place
- Understand your soil, sunlight, and moisture
- Providing long term care and maintenance will help trees and shrubs to survive
- Understand local weather conditions and events such as rain, hail, drought, earl/late snowfalls, extreme freezes and chinook winds



TREE FORMS



ROUND



SPREADING



PYRAMIDAL



OVAL



OPEN



CONICAL



VASE



COLUMNAR



WEEPING





Paper Birch Betula papyrifera

Plant Type: tree Height: 40 feet Spread: 25 feet Sunlight: partial shade to full sun

The king of the northern birches, with snow-white peeling bark and gold fall colour; needs adequate moisture and well-drained...



Clump Paper Birch Betula papyrifera '(clump)'

Plant Type: tree Height: 40 feet Spread: 30 feet Sunlight: partial shade to full sun

Stunning multi-stemmed form of paper birch shows off snow-white peeling bark and gold fall colour; needs adequate moisture and...

Add To My Wish List

Add To My

Wish List

DECIDUOUS TREES



Northern Acdaim Honeylocust

Siberian Larch

Prairie Silk Honeylocust





Weeping Larch

Summer Frost Amur Maadua

Dolgo Crabappie

Eagle Lake







Gleditrio macanthos ? ianve'

NORTHERN ACCLAIM HONEYLOCUST One of the hardiest Honeylocust varieties, this selection has a broad, upright form with almost oriental, horizontally tiered branches. With lacy foliage, it lends interesting texture to the landscape. This tree can handle being limbed up as it matures to allow for more pedestrian traffic undemeath. Could make a nice boulevard tree with tolerance to salt. Ht. 12M Sp. 9M 😑 🛸 🛞 🕸 🕌 Z3



Gledinis macanthos inermis Dursari PRAIRIE SILK HONEYLOCUST

This is a new variety we have been testing at the nursery for several years. We have had good success and feel we can recommend it for the prairie landscape. Open horizontal branching form. Something new to try as an accent tree in the landscape. Glossy fem-like foliage. Ht. 6M Sp. 3M Royalty 0.50 💮 🛸 🗮 Z3



Larix decidure Perukuka' WEEPING LARCH

This is great accent tree, with graceful weeping form. Adaptable to most growing conditions but prefers moist soils and will even tolerate some standing water. Drops needles in winter. Ht 25M5p 25M 🕌 🖷 Z3

Latix spirica SIBERIAN LARCH

Larchis abeautiful addition to many types of landscapes. A mass planting provides an eye-catching display of bright yellow fall colour. This tree grows fast and is low maintenance and tolerant of dry conditions. Its feathery lush green needles drop in winter Broad pyramidal form. HL 6M Sp. 3M 💛 🚔 🛸 🐨 👹 🧂 Z2

SUMMER FROST AMUR MAACKIA

Maackia amutensis Summer Prost"

A tree with year round interest - leaves emerge fuzzy and silver in spring, white galoes of flowers bloom mid-summer, and mottled olive bark is a unique winter feature. It is slower prowing but adaptable to most conditions - dry, moist, most soil types, and pH. Can handle some salt. HL 6M Sp. 5.5M 🔛 🐜 🍯 🖤 🕌 🧮 Z3

Malus x additioneens 'Durleo'

GLADIATOR FLOWERING CRAB Gladiator has an upright dense form. Bright pink flowers with deep purple fruit. This tree has excellent fire blight resistance making it a reliable addition to many types of landscapes. Glossy purple foliage. Ht. 4M Sp. 2.5M Royalty 1.00 🔴 💰 📲 Z3

Green foliage with profuse white flowers in spring. Produces an abundance of oval-shaped crab-apples that are excellent for cooking,



Malus baccata Rosthern' ROSTHERN COLUMNAR CRAB

This ornamental crab has a narrow upright growth habit that is perfect for small spaces or for providing screening. It will do well in average to moist soil conditions and is highly tolerant of urban environments. Profuse, fragrant, white flowers in spring followed by small red berrylike apples. Green leaf colour. Ht. 5M Sp. 2M

4 Z3

Malui x 'ilig lilver'

Big River has a spreading upright growth habit. Ideal for residential and commercial landscapes. Deep pink flowers followed by persistent fruit, that feed the winter birds. Bronze-green leaf colour. Ht. 5M Sp. 3M

Malus x Combo

COMBINATION APPLE

This unique apple tree has 3-5 different varieties grafted onto one tree. Great selection for the adventurous gardener or for an interesting feature in a community garden. The various apples will poll nate each other so you don't have to plant a second tree. HL 5M Sp. 4M 🔁 🍝 Z3

Malurs Durby

AMBASSADOR FLOWERING CRAB

Ambassador has an upright, columnar growth habit. This hardy selection produces deep pink blooms in spring with small dark red fruit. Highly disease resistant but should not be allowed to dry out. Ht. 9M Sp. 4M

Malus x 'Ourtawrence' COURAGEOUS FLOWERING CRAB

Courageous has a dense oval form, ideal for both residential and commercial landscapes. Pale-pink flowers fade to white. This variety

to green in summer. HL 6M Sp. 3M Royalty 1.00

EMERALD SPIRE FLOWERING CRAB

Emerald Spire has a dense narrow columnar form, that is great for landscape screening. Flowers are fuchsia fading to white. The fruit is light green and persistent adding winter interest. Good disease resistance. Leaves are green.

Ht. 4M Sp. 2M Royalty 1.50

Mahrs & Fall Red" FALL RED APPLE

Green foliage with white flowers in spring. A late season apple producing

Ht. SM Sp. 4M

a matte-red fruit 7cm in size. Good for eating, cooking and juice.

🎝 🍯 Z3

Malury Goodland" GOODLAND APPLE

Green foliage with white flowers in spring. Late season apple producing green-yellow fruit with a slight red blush. This apple is excellent for fresheating and cooking. It also stores well. HL SM Sp. 4M

≥ ≤ Z3

a 💰 Z3

Mahury Hard-Moc HARDI-MAC APPLE

Green foliage with pinkish-white flowers in spring. A late season apple with bright red fruit. Good for eating and cooking. Ht. 5M Sp. 4M 🏝 🍝 Z3



Big River Flowering Crab

Ambassador Flowering Crab



Combination Lonk





Courageous Flowering Crab









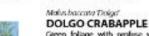
ioodland Apple



Hardi-Mac Apple

Eagle Lake MURSERIES LTD.

Photo source: https://www.eaglelakenurseries.com/plantguide/













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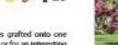


BIG RIVER FLOWERING CRAB

🔰 🛃 Z3







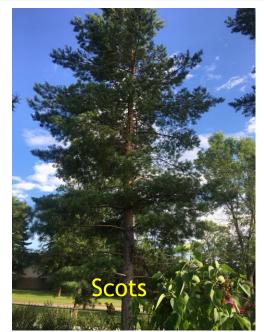


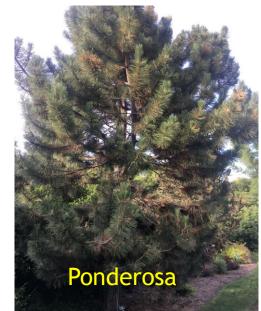
DECIDUOUS TREES



produces very little seed. Coppery-bronze leaves in spring the change

Malus x 'Emerald Soire'





Pines

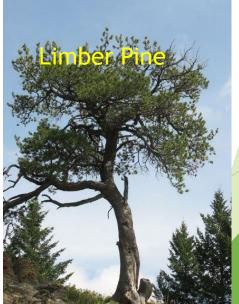
- Scots, Bristlecone, Lodgepole, Ponderosa, Whitebark, Swiss stone, Austrian Limber and Mugo
- All pines love full sunlight
- Long lived, drought tolerant and fast growing
- Can withstand wind















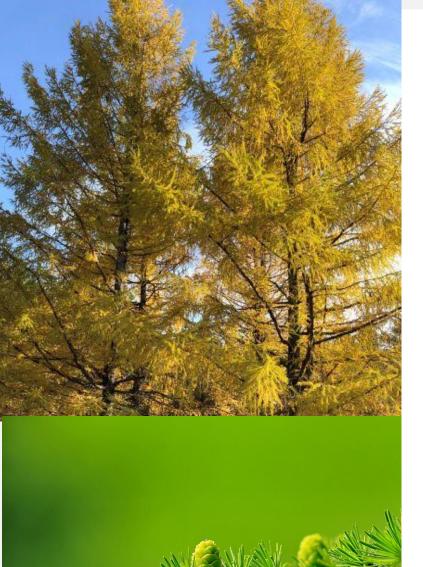




Spruces

- It grows best on well drained, moist, silty soils
- The root system grows fairly flat, but on deep soils will form a 'heart' root system
- Prefer northern/western, colder exposure
- Excellent windbreak
- Grow slow
- Colorado blue can sustain saline soils





Tamarack and Siberian Larch

- Tamarack/Larch sheds its needles every year.
- Tamarack is usually found on moist, organic soils but will grow on a wide range of soil types and moisture conditions.
- Subalpine larch may be found in high elevation locations along the BC-Alberta border.
- Siberian larch will grow on drier sites.
- Low tolerance to shade





Firs

Balsam, Douglas and Subalpine fir

- Douglas fir is fire resistant. Grow in cold and moist area. Grow in very rocky and poor soils
- Douglas fir has very strong, wide spreading root system. It is quite windfirm tree
- Subalpine fir grows on higher elevations. It has a shallow root system. Prefers cold moist, and well drained sandy soils. Can tolerate dry conditions.



Coniferous shrubs

Pine

Spruce

Yew

Junipers and cedars



Aspen, Black poplar and Plains Cottonwood

- They are all native trees
- Trembling aspen is the most widely distributed tree in North America. It grows on almost every soil type.
- Black poplar along creeks, rivers and wet areas
- Cottonwood along large southern rivers
- They are a fast-growing, moderately short-lived tree. It often occurs in pure stands after fires, where it can act as a "nurse" to spruce and fir
- Suckering is the most common way to reproduce

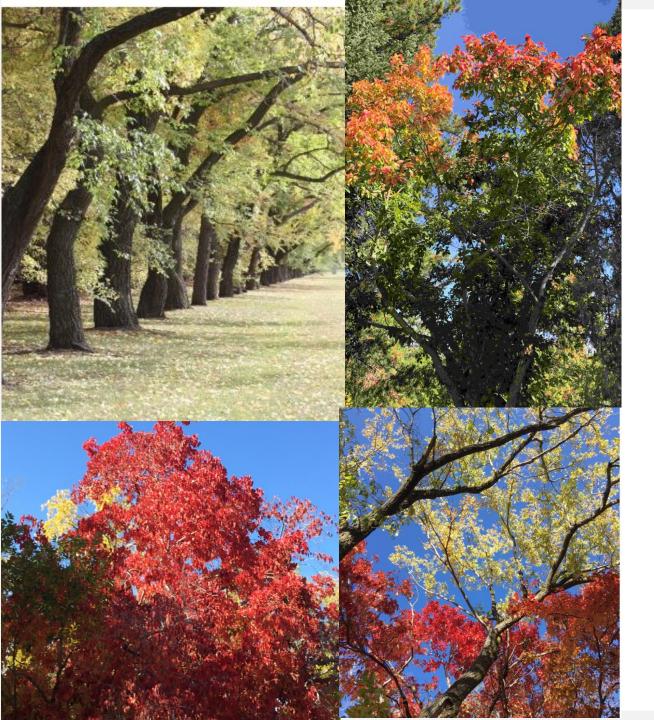


Birch

Variety: Paper, White, Weeping cutleaf birch, Dakota Pinnacle, and Chickadee paper birch

- It grows on most soil types and in most moisture conditions, from sand dunes to heavy organic and acidic 'bog' sites.
- Most of birches are not drought tolerant and grows best on moist, well-drained sandy or silty-loam soils.
- They are pioneer species, has shallow, vigorous and fibrous roots system
- Birch borer and drought are biggest threat to birch

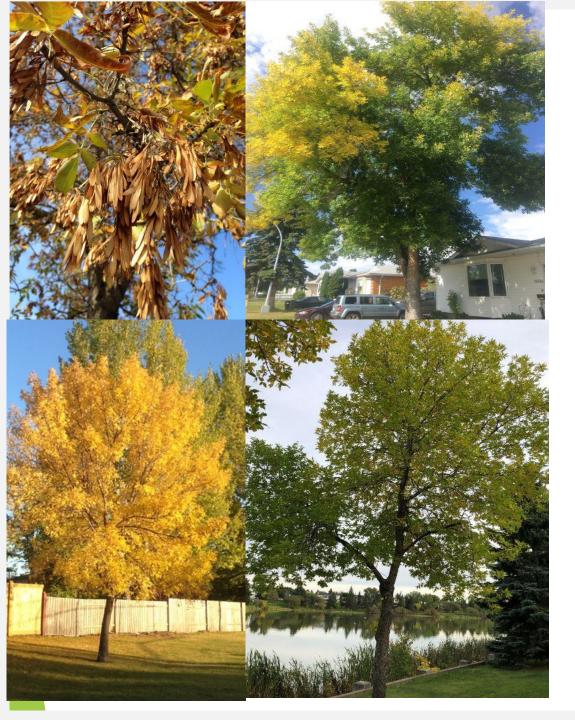




Maples

Variety: Manitoba, Amur, Flame Amur, Silver, Hotwings Tatarian, Crimson and many other

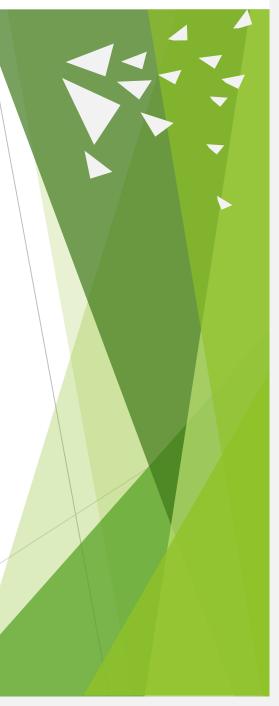
- They last well 50 years
- Variety of moisture requirements
- Relatively fast growth rate
- They are prolific seed producer
- Winter stem dieback
- Drought



Ash

Variety: Green, Black, Patmore, Foothills, Mancana Manchurian, and Fallgold black ash

- Lasts > 50 years
- Moderate moisture requirements
- Moderate growth rate
- Prolific seed
- Deep rooted
- Susceptible to 2,4-D damage
- Slow growing under dry conditions
- Cottony psyllids, aphids, cankerworms are a major pest. Invasive Emerald ash borer NOT here yet



Ohio buckeye

Burr Oak



Oaks and Ohio buckeye,

Oaks: Burr oak

- Slow growing but long living
- They prefer full sunlight
- Moist and deep soils
- leaf and twig anthracnose, leaf curl

Ohio buckeye

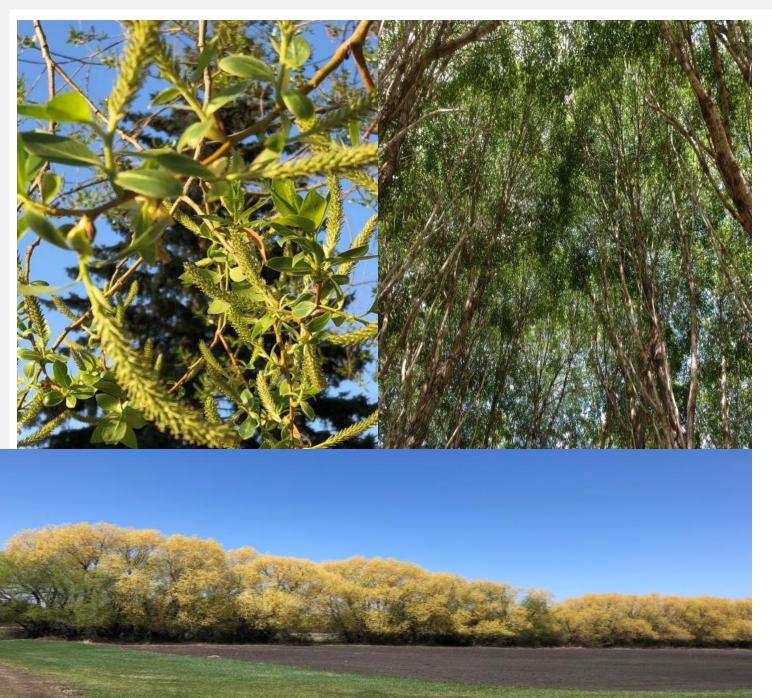
- Moderate moisture requirements
- Moderate growth rate
- Very hardy but not drought tolerant
- nuts contain tannic acid that can kill turf grass



Elms

Variety: American, Brandon, and Siberian

- Fast growing and long living
- They prefer full sunlight
- Moist and deep soils
- Shade can kill turf grass
- Dutch Elm Disease is constant threat
- Winter dieback is common



Willows

Variety: Golden, Laureleaf and Sharp Leaf, and Acute

- Very wet area
- Prolific flow and seed producer
- They prefer full sunlight
- Moist deep soils
- Can sustain very heavy clay soils
- Root suckering is common
- Avoid planting near buildings



Lindens

Variety: American, True North, Dropmore and Morden Littleleaf

- Prolific flow and seed producer/
- They prefer full sunlight
- Moist and deep soils
- Prefers deep moist fertile aerated and loam/clay soils
- Stump sprouts
- very few serious pests



Mountain Ash -Showy, Black Hawk, Russian, Pyramidal

- Lasts 30 50 years
- Hardy and 2a zone
- Low moisture requirements
- Edible fruit for birds
- Moderate growth rate
- Prefer full sunlights





Hawthorns - Snowbird and Toba

- Lasts 30 50 years
- Suckers lots
- Low moisture requirements
- Large thorns
- Edible fruit
- Moderate growth rate





Chokecherry and Pincherry

- Lasts 30 50 years
- Suckers
- Moderate moisture requirements
- Shade intolerant
- Moderate growth rate





- Multi-stemmed deciduous shrub with a more or less rounded form
- Zone 2-7

Ninebarks

- 5-7 feet height and up to 10 feet wide
- Various leaf colors with attractive flowers and bark,
- Can withstand tough conditions,
- few if any pests or diseases,
- Low maintenance, easy to grow, and attractive group of large shrubs.



Spiraea (Rosacea family

- Fast growing means spiral, it refers to their wreath-like display of showy, small flowers.
- Zone 3
- Pollinators are attracted to shrub
- 3-5 feet height and up to 7 feet wide
- Various leaf colors with attractive flowers and bark,
- Deadhead flowers after blooming to tidy up plants
- Aphids, spider mites, powder mildew
- Drought tolerant once established and deer tolerant



Potentilla (Shrubby cinquefoil)

- A very hardy and widely used
- Flowers during late summer and early fall

Zone 2

- Pollinators are attracted to shrub
- 3-4 feet height and up to 3 feet wide
- Leaf spot and mildew diseases and spider mites
- Drought tolerant



Saskatoon's

(Smokey, Thiessen, Northline Regent, Honeywood, etc)

- Zone 2a
- Native and fast growing, good soil and drainage
- Pollinators are attracted to shrub
- Up to 15 feet height and up to 10 feet wide
- Disease : blackleaf/witch's broom, saskatoon berry/juniper rust and Cytospora canker.
- Aphids, spider mites, powder mildew
- Do not like wet area



- Long lived
- Spreads by seed
- Moderate moisture requirements
- Shade intolerant
- Performs poorly on sandy soils
- Moderate growth rate
- ► Very extensive root system

Lilacs

Shrubs for southern Alberta

- Saskatoon's native
- Wolf-willow, -silverberry
- Silver buffaloberry or thorny buffaloberry
- Prairie and common rose
- Wolfberry western snowberry
- Variety of junipers
- Tatarian honeysuckle
- Barbeary
- Burning bush (Euonymus sp- Turkistan and fireball)
- Caragana

UNIVERSITY OF SASKATCHEWAN

Welcome to the U of S Fruit Program Home Page



Fruit Trees for Peace Region



Tree species	Latin name	Hardines Zone	Polination	Polinator
Autumn Delight	Malus 'Autumn Delight "	2b	self-incompatible	Crabapples or other apples
Fall Red Apple	Malus 'Fall Red'	2b	self-incompatible	Crabapples or other apples
Misty Rose	Malus "Misty Rose"	2b	self-incompatible	Crabapples or other apples
Prairie Sensation	Malus " Praire Sensation'	2b	self-incompatible	Crabapples or other apples
Norland	Malus "Norland"	2b	self-incompatible	Crabapples or other apples
Gemini	Malus "Gemini	2b	self-incompatible	Crabapples or other apples
Battleford	Malus "Battleford"	2b	self-incompatible	Crabapples or other apples
September Ruby Apple	Malus 'September Ruby'	2b	self-incompatible	Crabapples or other apples
Crabapple (Dolgo)	Malus 'Dolgo'	2b	self-incompatible	Crabapples or other apples
Carmine Jewel Cherry	Prunus 'Carmine Jewel'	2b	self-compatible	does not need another cherry
Romeo	Prunus " Romeo"	2b	self-compatible	does not need another cherry
Crimson Passion	Prunus 'Crimson Passion'	2b	self-compatible	does not need another cherry
Juliet	Prunus 'Juliet'	2b	self-compatible	does not need another cherry
Cupid	Prunus 'Cupid'	2b	self-compatible	does not need another cherry
Evans Cehery	Prunus ' Evans"	2b	self-compatible	does not need another cherry
Ure Pear	Pyrus "Ure".	2b	self-incompatible	Other pear
Pembina plum	Prunus x pembina	2b	self-incompatible	Other plum

Small trees Tatarian Maple Amur cherry Ivory silk lilac Bur oak Mt. Ash, Ohio buckeye Red Hot Wing Maple Cork tree



Salt tolerant species

- Caragana -very invasive
- Sea Buckthorn
- Silver Buffaloberry
- Russian Olive -very invasive
- Common Lilac
- Green Ash
- Ponderosa pine
- ► Chokecherry
- Hawthorn
- Siberian elm
- Laureleaf Willow
- Rocky Mountain Juniper

What you can do about salt and saline soils

- Plant trees and shrubs tolerant to salinity
- Plant further way from road -keep trees at least 60 feet from roads
- Trees are more sensitive at establishment and young
- Plants are less tolerant in dry and hot climate
- Salt reduce growth and survival
- Mulching can help in area where there is salt spraying not in salty soils
- Wash salt off trees in early spring to reduce the extent of injury to sprayed branches.



Trees and Shrubs for clay soils

- Hybrid poplars (most of them)
- Balsam poplar, Aspen and Plains Cottonwood
- American and Brandon Elm
- Willows
- Green and Black Ash
- Bur oak
- Manitoba maple
- Linden / Basswood
- River Birch
- Crabapple
- Larch
- Dogwood (many varieties)
- River alder
- Pincherry
- Common lilac
- Nannyberry



Trees and Shrubs for sandy soils

- Pines (most of them)
- Colorado and Fat Albert spruce
- Colorado spruce and Douglas fir
- Rocky Mountain juniper
- Aspen and Serengeti Poplar
- Siberian Elm
- Patmore and Foothills Green Ash
- Honeylocust
- Siberian Larch
- Hawthorn
- Caragana, silver buffalo berry and fragrant sumac (Skunk brush)
- Barberry
- Potentilla or shrubby Cinquefoil, lilacs, golden currants, Saskatoon's, American plum



Key Messages

- Understand your soil prior your tree and shrub selection
- Understand water requirements
- Understand your microsite requirements wind, water flow, exposure
- Choose appropriate form and shape to fit your site
- Visit local tree nursery, botanical garden, park and neighbours
- Plant as many as possible trees and shrubs as you can
- Diversify, Diversify and Diversify
- There is no perfect tree or shrub



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Blog: https://yardwhispers.ca/blog/