








<p>Zone 1:  below -46° C (below -50° F)</p>	<p>Zone 2:  -46° to -40° C (-50° to -40° F)</p>	<p>Zone 3:  -40° to -34° C (-40° to -30° F)</p>	<p>Zone 4:  -34° to -28° C (-30° to -20° F)</p>	<p>Zone 5:  -28° to -22° C (-20° to -10° F)</p>
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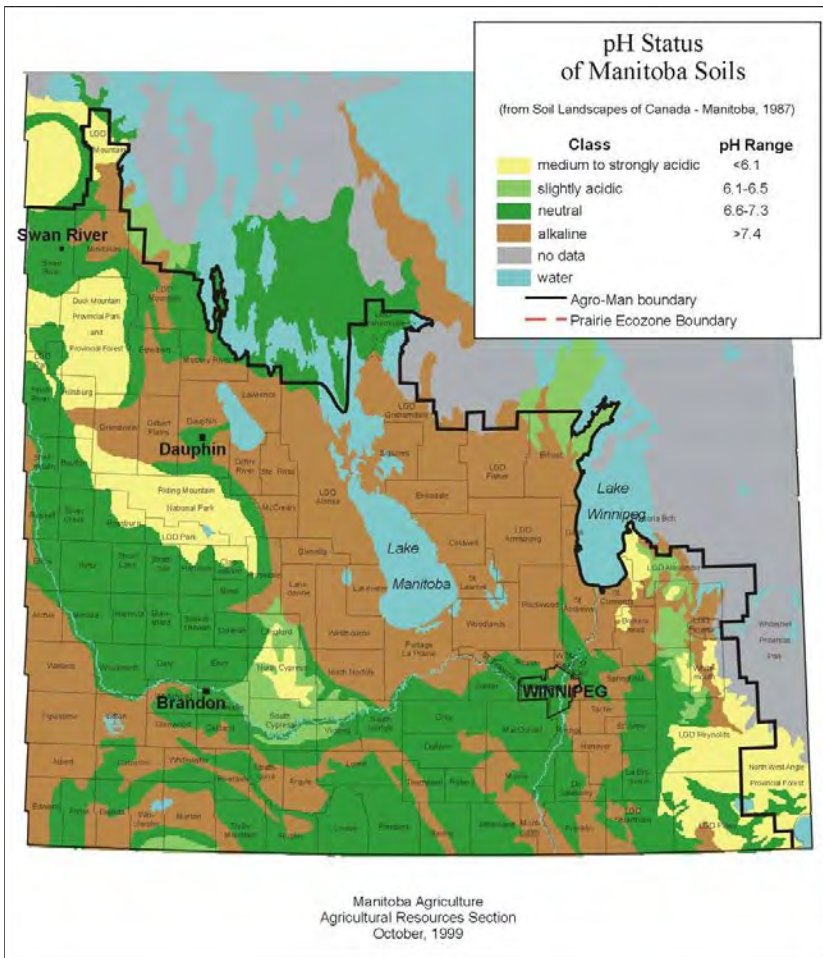
A zone rating is an attempt to match a plant's survival with a set of environmental conditions. These conditions include minimum winter temperature, frost free period, snow cover, and wind speed. Most zone maps include a list of indicator plant species whose survival depends on certain climatic variables.

Remember that zone ratings are only a guideline for plant selection. Plant survival is also impacted by bodies of water, wind protection, snow cover and urban heat islands. For this reason there will always be trees and shrubs that defy the odds and thrive under conditions very different from their zone rating. Nevertheless, there are limits to this flexibility and in most cases ignoring a plant's zone rating is an invitation for winter damage.

Typical winter damage on woody ornamentals includes winter browning, root injury, tip kill and bole cracking. The absence of snow combined with cold temperatures can have lethal effects on the roots of certain species. It is for this reason that rootstock must be carefully selected even when bud grafting hardy varieties. Ideally, seedling rootstock should be sourced from the harshest conditions in the region where the finished plant will be marketed.

Tip kill and bole cracking are not only related to winter conditions but, more importantly, the onset of those conditions in the fall. Woody plants need adequate time and suitable conditions to set buds and enter dormancy prior to facing extreme cold. For example, an extreme September frost may be more damaging to a Silver Maple than a bitter cold spell in January.

An informed gardener will take note of plant hardiness when making plant selections. However, one should not hesitate to stretch the limits of ornamental species in the landscape through: 1) proper plant placement to take advantage of snow cover and shelter, and 2) careful application of fertilizer so as to allow proper fall shutdown.



These figures provide the pH status of topsoil in Manitoba, Saskatchewan and Alberta.

Soil pH is reported as a logarithmic scale so that a single unit change in pH represents a 10-fold difference in conditions.

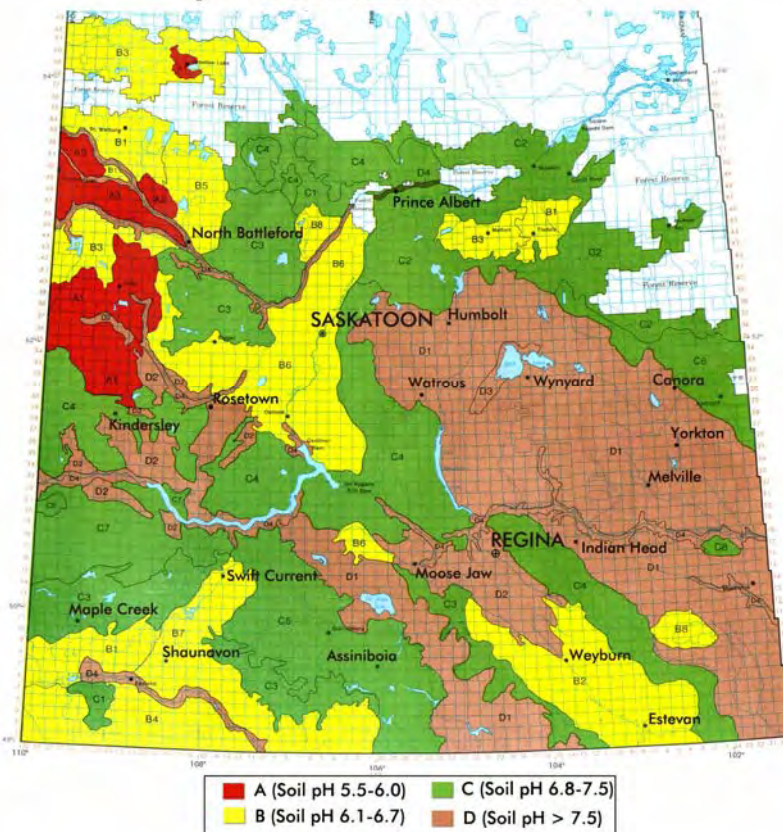
There is considerable variation in soil pH across each province and tree planting lists for communities should be customized with this fact in mind.

The impact of soil pH on tree performance cannot be overstated. At maturity, trees access water and nutrients from a large area of soil and it is very difficult to modify soil pH on this scale.

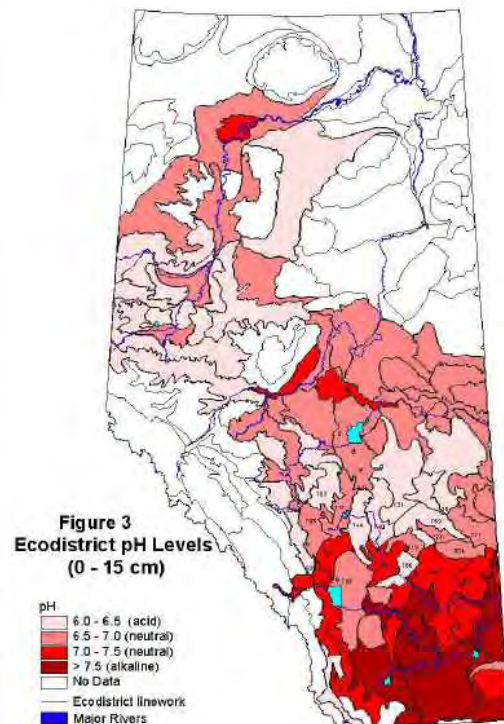
Plants that are especially sensitive to alkaline pH include the following:

- Amur Maple
- Freeman Maple
- Red Maple
- Blueberry

pH of Saskatchewan Soils

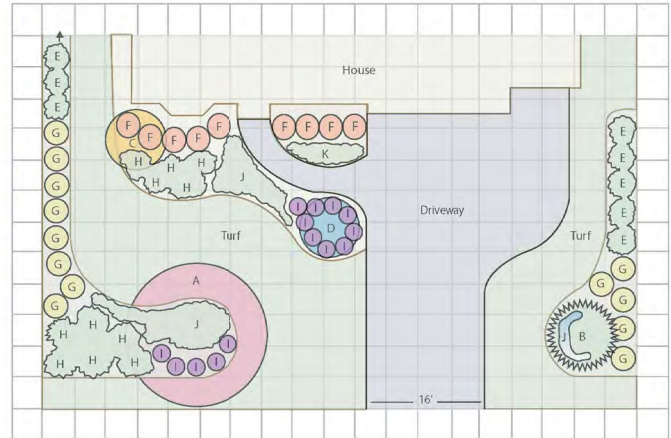


pH of Alberta Soils



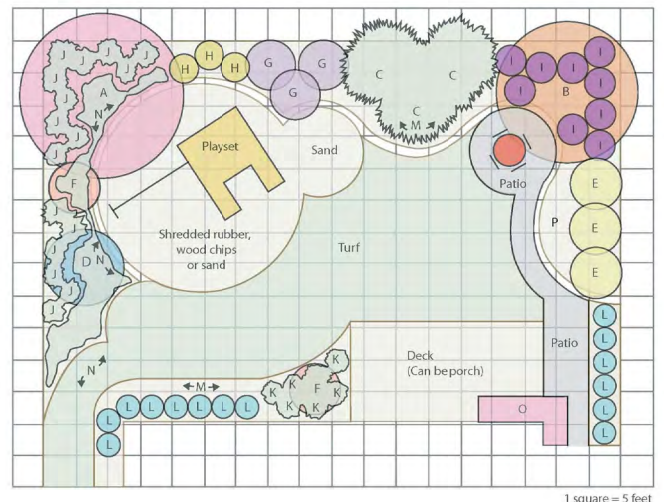
WELCOMING FRONT YARD

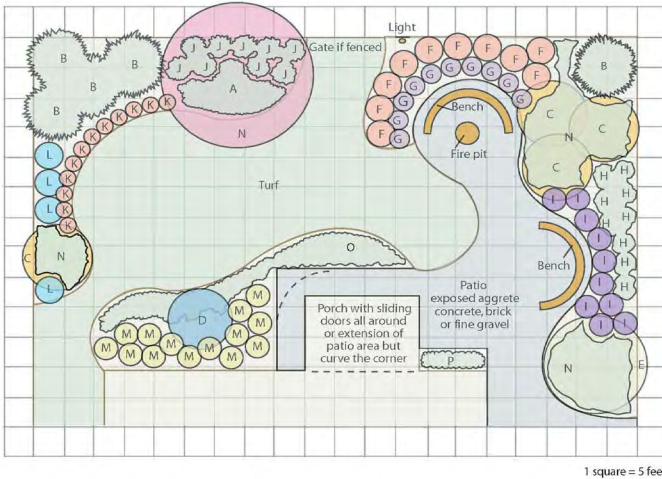
- A** Dropmore Linden (x 1)
Alternates: American Linden, Admiration Oak
- B** Black Hill's White Spruce (x 1)
Alternates: Select Blue Spruce, Hoopsi Blue Spruce
- C** Snowbird Hawthorn (x 1)
Alternates: Spring Snow Crabapple, Toba Hawthorn
- D** Ivory Pillar Tree Lilac (x 1)
Alternate: Ivory Silk Tree Lilac
- E** Medora Juniper (x 8)
Alternates: Skybound Cedar, Wichita Blue Juniper
- F** Incrediball Hydrangea (x 9)
Alternates: Little Lady Lilac, Dwarf Korean Lilac
- G** Tiny Wine Ninebark (x 8)
Alternates: Summer Wine Ninebark, Center Glow Ninebark
- H** Hughes Juniper (x 11)
Alternates: Arcadia Juniper, Morden Yew
- I** Pink Beauty Potentilla (x 14)
Alternates: Darts Red Spirea, Magic Carpet Spirea
- J** Perennials or ground cover; use dwarf daylilies or a mix of nepata and coreopsis
- K** Annuals of choice with spring bulbs



FAMILY BACKYARD

- A** Silver Cloud Maple (x 1)
Alternates: Inferno Sugar Maple, Hackberry
- B** Prairie Horizon Alder (x 1)
Alternates: Autumn Splendor Buckeye, Admiration Oak
- C** Baby Blue Colorado Spruce (x 3)
Alternates: Black Hills White Spruce
- D** Starlite Flowering Crabapple (x 1)
Alternates: Princess Kay Plum, Klondike Amur Cherry
- E** Spring Snow Flowering Crabapple (x 3)
Alternates: Snowbird Hawthorn, Showy Mountain Ash
- F** Atomic Amur Maple (x 2)
Alternates: Muckle Plum, Double Flowering Plum Topgraft
- G** Showy Mountain Ash (x 3)
Alternates: Spring Snow Crabapple, Snowbird Hawthorn
- H** Northern Gold Forsythia (x 3)
Alternates: Golden Currant, Lemon Candy Ninebark
- I** Cool Splash Dwarf Honeysuckle (x 9)
Alternates: Little Rebel Dogwood, Western Snowberry
- J** Russian Cypress (x 16)
Alternate: Morden Yew, Dwarf Mugo Pine
- K** Quick Fire Hydrangea (x 7)
Alternate: Alaska Cranberry, Miniglobe Honeysuckle
- L** Annabelle Hydrangea (x 3)
Alternate: Alpine Currant, Snowwhite Spirea
- M** Burgundy Glow Ajuga (x 6)
Alternate: herbaceous perennial groundcover
- N** Mixed perennials including aster, coreopsis, Echinacea, geranium, hemerocallis, iris, phlox, rudbeckia and veronica
- O** Annuals of choice
- P** Vegetables and herbs

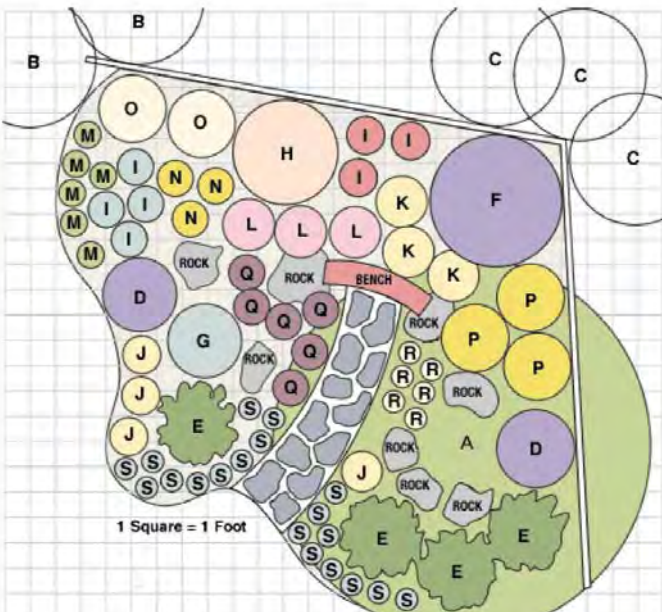




BACKYARD FOR ENTERTAINING

- A** Dropmore Linden (x 1)
Alternates: American Linden, Admiration Oak
- B** Black Hill's White Spruce (x 5)
Alternates: Select Blue Spruce, Hoopsi Blue Spruce
- C** Starlite Flowering Crabapple (x 4)
Alternates: Spring Snow Crabapple, Snowbird Hawthorn
- D** Purple Spire Crabapple (x 1)
Alternates: Emerald Spire Crabapple, Miss Kim Lilac Topgraft
- E** Klondike Amur Cherry (x 1)
Alternates: Pink Spires Crabapple, Hot Wings Maple
- F** Mohican Viburnum (x 10)
Alternates: Nannyberry, Snowball Viburnum
- G** Goldflame Spirea (x 10)
Alternates: Goldmound Spirea, Magic Carpet Spirea
- H** Skybound Pyramidal Cedar (x 9)
Alternates: Brandon Pyramidal Cedar, Holmstrup Cedar
- I** Mandarin Tango Potentilla (x 13)
Alternates: Pink Beauty Potentilla, Morden Snow Potentilla
- J** Russian Cypress (x 9)
Alternates: Compact Plumosa Juniper, Icee Blue Juniper
- K** Chinook Sunrise Rose (x 12)
Alternates: Winnipeg Parks Rose, Prairie Joy Rose
- L** Quick Fire Hydrangea (x 4)
Alternates: Summer Wine Ninebark, Snowwhite Spirea
- M** Annabelle Hydrangea (x 14)
Alternates: Incrediball Hydrangea, Limetta Hydrangea
- N** Ground cover
- O** Mixed perennials
- P** Annuals of choice

GARDEN FOR BIRDS



- A** Hot Wings Maple (x 1)
Alternates: Gladiator Crabapple, Ming Amur Cherry
- B** Snowbird Hawthorn (x 2)
Alternate: Nannyberry Viburnum
- C** Skybound Cedar (x 3)
Alternates: Holmstrup Cedar, Techny Cedar
- D** Little Rebel Dogwood (x 2)
Alternate: Little Lady Lilac
- E** Arcadia Juniper (x 4)
Alternate: Russian Cypress
- F** Mohican Viburnum (x 1)
Alternate: Redosier Dogwood
- G** Snowberry (x 1)
Alternates: Sweetberry Honeysuckle, Autumn Magic Aronia
- H** Compact American Cranberry (x 1)
Alternate: Nannyberry Viburnum
- I** Purple Beauty Aster (x 7)
Alternates: Romany Aster, Solomon's Seal
- J** Moonbeam Coreopsis (x 4) Alternate: Coral Bells
- K** Purple Coneflower (x 3) Alternate: Globe Thistle
- L** Black Eyed Susan (x 3)
Alternate: Grand Parade Monarda
- M** Butterfly Blue Pincushion Flower (x 6)
Alternate: Catmint
- N** Goldenrod (x 3) Alternate: Globe Thistle
- O** Autumn Red Maiden Grass (x 2)
Alternate: Variegated Feather Reed Grass
- P** Blue Oat Grass (x 3) Alternate: Common Fern
- Q** Japanese Painted Fern (x 6)
- R** Cosmos (x 6) Alternate: Coleus
- S** Moss Rose (x 20) Alternate: Impatiens