



Residential Landscape Guidelines

These Guidelines were prepared by SOS Tree Coalition with the assistance of Denise Balcaen (www.gardensfourseasons.com).

Designing Your Landscape:

These are the basic steps that should be followed in creating a residential lot landscape design.

1. Create an existing plot plan. This is very important in order to produce an accurate landscape plan.

Start with the Surveyor's Certificate. This should be on file in the Building Permit section at City Hall or on file with your mortgage application. Alternatively, you can hire a Registered Land Surveyor to produce this certificate. The certificate will show you the dimensions of your lot as well as the location of any structures on your lot at the time the certificate was issued. If any structures were built subsequently, you may have to measure out their location in reference to the information contained on the Certificate.

Draw out the plot plan to a specific scale. Graph paper is a handy tool for this. Please note that any utility easement either in the front yard or back yard will be noted on the Surveyor's Certificate and should be plotted on the site plan as they may restrict some of your landscape options. Services added after the Certificate was issued will not be included but should be noted as well. Call Sask1stCall (1-866-828-4888) to have underground utilities located and flagged. Overhead utilities should also be shown.

A Surveyor's Certificate looks something like this:

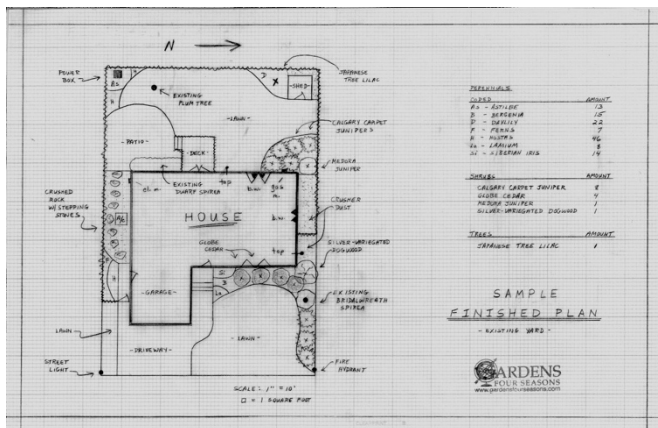
If you cannot find a Surveyors Certificate, you can go to [Google Maps](https://www.google.com/maps), turn on the photo feature, and zoom in on your property to perform an image capture. If you know the dimensions of your lot, say the front width, you can scale the image, and then measure

[illegible]

An aerial photograph of a residential property. The house has a large, brown, gabled roof. A white car is parked on the street in front of the house. The property is surrounded by green grass and trees. A small white structure is visible on the left side of the property. The number 502 is visible on the roof.

There are also numerous landscape design applications available online, particularly through the [Apple App Store](#), that can assist you in developing and visualizing your landscape design. However, you will still need to go through the steps contained in these design guidelines to produce an appropriate and pleasing design for your specific property.

2. Once the basic plot plan is completed, measure the location of any shrubs, trees, or other items on the lot and plot them on your drawing. [Symbols](#) or icons of various plan material can be found on the Internet by searching for pictures.
3. Place a north arrow on your site plan (this will be shown on the Surveyor's Certificate). Note the orientation of your house in reference to the sun and the prevailing wind. This will help determine the location of trees and shrubs, sun access and shade where desirable and protection from the wind. Also make note of seasonal changes, including snow buildup or storage.
4. Indicate the location of doors, windows, basement windows and any overhanging portions of the house, such as roof eaves, bay windows, cantilevered structures, decks, patios, breezeways, etc.
5. Note any significant changes of elevation (slopes) on your property as this will be important in controlling water run-off during heavy rains or snow melt. Please be advised that you are not allowed to channel surface drainage onto adjacent properties. However, surface drainage can be guided toward shrub beds or landscape areas that may benefit from water absorption. It is very important that drainage is directed away from the house and other structures such as garage. It should be noted that artificial turf or large hard-surfaced areas may contribute to water run off problems as they prevent water from being absorbed into the soil.
6. Note the location of your external hose bib(s) as you may wish to provide irrigation to your landscape. Mark the location of utility meters, dryer vents, fireplaces, intake and exhaust vents, etc., to allow for access or to camouflage them. Also note the location of external ground fault electrical outlets as access may be necessary for landscape lighting, Christmas lighting, irrigation controllers, water pumps or other electrical appliances.
7. Determine how you want to use the yard. Common uses include seating area(s), children's play area grassed are for free play, firepit pit, etc. Determine where you store your garbage bin, recycle bin, and compost bin or composting site, as you may wish to screen these from view. Also consider the location and orientation of a vegetable garden plot if it is to be included in your landscape design.
8. Determine the location of pathways on your lot: in front yard, access to a garage, access to a garden, access to your garbage and recycle area, access to the rear lane or rear gate, dog kennel, etc. Note that pathways need not be straight and are often used to define planting layout, viewing angles, and seating areas in a creative and interesting way.
9. If you have a porch, deck, or patio, determine desired view angle as this may help determine the location of trees, shrubs, or flower beds. Also take note of your 'extended view', that is, your view past your property line. This could be an ugly power pole or a neighbour's unfinished shed that you may want to screen. Perhaps you have a magnificent spruce tree in the neighbour's yard that you enjoy, so you may want to emphasize that view. Or maybe your neighbour's massive poplar overhangs your fence or overhead utility lines cross your yard which will affect your views. Note all factors that make your property unique and take advantage of them.
10. Once the basic structure of your yard has been determined and the layout drawn on your plot plan, you can begin to select your planting material. It is best to work from big plant material to small, that is: trees, shrubs, perennial and then annuals. Shown immediately below is sample of a simple landscape design.



11. **Selection of Trees:** Trees species may be selected for various reasons including: appearance (for example, colour, size shape), shade, wind sheltering, fruit yielding, ability to attract birds. When choosing trees, it is important to plan for their growth and eventual mature

size. A common error is to plant trees too closely together to provide an immediate impact. Be patient. With our changing climate, including drought, warmer temperatures, and fluctuating freezing and thawing cycles in the winter, good choices have become more unpredictable. Be aware of what species are surviving and thriving in your community. Talk to knowledgeable people at local nurseries or contact the University of Saskatchewan gardening advice. You may also perform a web search for specific information but be cautious, as a lot of the information you find may not be appropriate for our climate zone and local environmental conditions.

12. Selection of Shrubs: Shrubs are usually smaller and shorter-lived than trees. They are often used for screening or to provide a backdrop for flowering perennials and annual flowers. Many shrubs are flowering as well and have specific flowering periods, typically in spring and early summer. It is important to note exposure to sun/shade, especially flowering plants which typically require sunlight. Shrubs are also chosen for size, colour, flowering habits, fruiting, leaf density and shape, and their ability to attract birds and bees. Talk to knowledgeable people at local nurseries or contact the University of Saskatchewan gardening advice.

13. Selection of perennials: Perennial flowering plants are added to landscape designs to provide seasonal colour. A thoughtful gardener will choose a range of perennials that flower at different times during the summer such that there are always some perennials in bloom. Perennials vary in size and texture and their placement should take this into account. Many perennials also have a limited life span and need to be moved or “separated” to prevent overcrowding or a natural decline in vigor. Perennials are typically shorter than shrubs and are placed in front of them with the shrubs acting as a backdrop.

14. Selection of annuals, including potted plants: Annuals are typically added to a landscape to provide summer colour. Their selection is often very personal to the homeowner and the choices are numerous. Annuals typically need more attention by the gardener. They must be dead-headed regularly to keep them in bloom. They may also require the periodic addition of fertilizer, either organic or chemical. If potted, the soil mixture will often contain a higher level of organic material, such as peat, to absorb water and prevent them from drying out too quickly. The soil temperature in potted plants is usually higher than ground soil temperature, which may contribute to more rapid loss of moisture, but may be taken advantage of when choosing plants that love warmer soil temperature. Tomatoes and peppers, for example, love warm soil temperature, and vegetables and herbs could be considered in your annual plant selection beyond a garden plot.

15. Plant selection is a critical part of producing a pleasing landscape design. However, the choices are too many to include in this document. Therefore, a list of resources is provided to assist you in your selection. *It should also be noted that with climate change, there is an opportunity to experiment with tree and shrubs normally found in plant Hardiness Zones 4 and 5, but care should be taken not to introduce invasive species.*

1. The Western Nursery Growers Group has compiled a list of trees and shrubs which it evaluated over a period of 5 years by planting them on the prairies and monitoring their development. The species were evaluated and ranked as “recommended”, “not recommended” or “marginal” (R, NR, M). Please refer to their web site at: <http://www.prairietrees.ca/prairie-tested-trees/>, or use this [hyperlink](#).
2. Information on specific trees or shrubs can also be found by googling its name online. However, caution should be used as the information may not be relevant to our plant hardiness zone (2b or 3b).
3. Additional information on Saskatoon can be found on the [SOS Trees Coalition](#) web site and as listed below:
 - Arbor Day Foundation: <https://www.arborday.org/> [hyperlink](#)
 - University of Saskatchewan Fruit Program: www.fruit.usask.ca [hyperlink](#)
 - Gardens Four Seasons: [hyperlink](#)
 - Saskatoon’s Urban Forest: A Guide to Urban Forestry Services: [hyperlink](#)
 - Gardening at USask: [hyperlink](#)
 - Introduction to Tree Pruning by Mike Maddox, Director of Wisconsin Master Gardener Program: [hyperlink](#)
 - For information on appropriate shrubs to plant in Saskatoon, please refer to the book Woody Ornamentals for the Prairies by Hugh Knowles published by University of Alberta.
 - For information on appropriate perennials to plant in Saskatoon, please refer to the book Creating the Prairie Xeriscape – Low-maintenance, water-efficient gardening by Sara Williams.
 - For talk show gardening advice dial in to: CKOM 650: Garden Talk with Rick & Jill van Duyvendyk, Sunday 9:00 AM-10:00 AM/4:00 PM-5:00 PM

Hardiness Zones:

Plants should be selected according to their function in the landscape. However, choices are limited by the plants’ [hardiness zone classification](#). North American biomes are divided into 13 hardiness zones based on average seasonal temperatures. They range from the

Arctic at Zone 1 to the Tropics at Zone 13. The older neighbourhoods of Saskatoon lie in zone 3b, whereas the outlying new suburbs are zone 2b. A plant with a number 4 or higher will struggle to survive in Saskatoon and will most likely die, particularly during a cold winter. However, there are exceptions, referred to as “microclimates”. A warmer microclimate can be created for various reasons, usually relating to sun access and protection from the northwest wind created by a building, fence, or existing landscaping. While this may create a greater risk of mortality, plants with a hardiness classification of up to Zone 5 may survive in a specific location. Commercial greenhouses usually specify the hardiness zone classification of plants they sell, but many other common sources may not. So, buyer beware! Shown below is the Canadian Plant Hardiness Zone Map:



Denise's Garden Primer

To assist you in the actual construction of your landscape once you have completed your plan, Denise Balcean (www.gardensfourseasons.com) has provided the following information.

Definitions:

annual - any plant that completes its life cycle in one year. Most annuals will bloom all throughout the growing season, dying completely when frost hits.

perennial – any plant that survives through multiple years. Perennials die back to the ground level only, leaving their roots to hibernate over the winter only to show new growth every spring. Most perennials will bloom for several weeks only at some point during the growing season. Therefore, it is wise to plant for a succession of blooming perennials accounting for the various blooming times of the plants selected.

deciduous - sheds foliage annually. Any trees, shrubs or vines which lose their leaves in fall or winter.

coniferous - holds foliage year-round. Junipers, cedars, spruces and pines are great examples of conifers or ‘evergreens’.

BEST TIME TO PLANT:

SPRING is the ideal time to plant container grown plants and transplant existing ones. They have the entire growing season ahead to establish themselves. Planting should wait until the last frost day is pasted, usually the 3rd week of May. If planting from seed, the planting time may be earlier, depending on the specific species.

AUTUMN is the second-best planting time before the end of September. This way they'll have 4-6 weeks to establish themselves for winter provided they are well watered.

SUMMER planting of *container grown* plants is a good idea if they are well watered and not planted during an extreme hot spell. Container grown plants, especially if purchased in mid-summer, are often “root bound”, that is, the roots have nowhere to expand and then circle the inside of the pot. When planting root bound plants, care should be taken to untangle the roots without causing too much root damage before planting.

* **Did you Know?** Shade-loving plants prefer even *more* organic matter mixed into the soil. Replicate the rich, composted ‘forest floor’ they come from and you'll be rewarded with healthy, robust growth!

SOIL:

Soil should be your **very first consideration** in your yard. If you have a new yard, see the amount guidelines below. If your yard is mature, it is extremely important for the success of your landscape to amend your soil. Soil in older yards has been depleted of nutrients and organic material, particularly if you have large trees nearby. Laments of “nothing will grow here!” can quickly turn to “look how everything flourishes!” when the soil is amended. Simply place 2 to 4 inches of organic matter (well-rotted manure or compost) on the surface of the intended planting area and dig into the top 12 inches or so. If working up the soil is not an option, such as renovating an existing perennial bed, simply ‘top-dress’ the bed with 1 inch per year of organic matter and water in well. Do this each autumn for best results. When planting new or transplanting perennials, it is always a best practice to add organic matter then too!

Rarely is it necessary or desirable to modify the soil within a planting hole for a tree or shrub. As the plant grows its root system will quickly extend beyond the planting hole into the native soil in the area. Most soil modifications are addressed by changing the pH level or acidity of the soil within the entire root zone. In most cases the soil should have a neutral pH level of 7 or close to that. However, certain species of trees, shrubs or perennials grow best in a more acidic or alkaline soil, and it is best to investigate the requirements of your plant before attempting to modify the soil. It is also advisable to perform a soil analysis test before attempting to modify the soil. You can have this done professionally or use an off-the-shelf soil analysis kit available in some nurseries or a Lee Valley. Also note that some species of trees or shrubs are more tolerant of less-than-ideal soil conditions. It is best to match your plant selection to your soil conditions.

How much topsoil? Annuals and perennials and vegetables require topsoil one foot deep. Trees and shrub beds need only the soil in the planting hole amended. There is no sense in putting 12 inches of topsoil over these bed since the tree or shrub will eventually grow down and laterally into the existing soil. What you want is to ensure is that the plant gets a good head start in growing so that it is robust once its roots reach the existing soil - whatever kind that may be! Lawns require 6 inches of topsoil.

MULCH:

[Wood CHIPS](#) and dead leaves can be used to ‘mulch’ or cover the soil surface around newly planted trees or shrubs. Crushed rock is not recommended as it can heat up and does not contribute to organic matter for the tree. It may also make weed control more difficult. Adding mulch aids in moisture retention and gives the newly installed landscape more of a finished look. Discretion should be used when using [shredded wood](#) (long strands of wood) as a too much mulch may retain an excess of moisture which may starve the tree or shrub of oxygen, cause fungal or bacteria infections or cause the roots to migrate into the mulch layer and kill those roots as the mulch dries out in hot weather. Wood fibres may also dry out quickly and migrate into unwanted areas of your yard. Make sure the soil is weed free before applying the mulch. Landscape cloth beneath mulch is not recommended as it makes weeding more difficult and is ineffective in stopping weeds from migrating into the area. However, a few sheets of newspaper work well and are easier and cheaper to use than cloth. Just spray the paper down with a bit of water after placing it so it lays flat. Lastly, apply mulch 2 to 4 inches deep over the newspaper layers or bare soil. Keep mulch about 6 inches away from the trunk or stem of any tree or shrub to prevent rot or damage by rodents.

PLANTING:

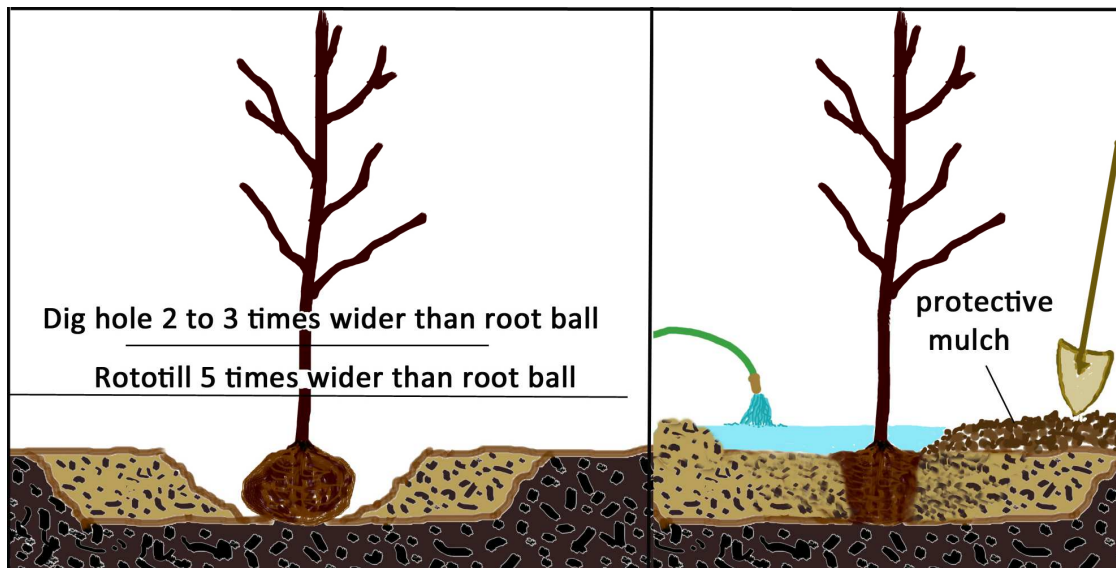
Most plants are sold in either containers or as B & B (balled and burlapped, meaning their roots are contained in a ‘ball’ and covered with burlap). Larger trees and shrubs are often available only as ‘B & B’.

1. Dig a hole 2 or 3 times the size of the root ball or container, but no deeper than the root ball height. Throw some bone meal into the hole and fill with water. For trees and shrubs, use Myke’s growth supplement or another brand of mycorrhizae fungi sprinkled lightly in the hole or added to the water. These three things ensure that essential nutrients and moisture are easily accessible at the plant at root level immediately after planting. (Mycorrhizae fungi form a network of filaments that associate with plant roots and draw nutrients from the soil that the root system would not be able to access otherwise. This fungus-plant alliance stimulates plant growth and accelerates root development.) For trees planted in a predominately clay soil, acidic soil, or alkaline soil, the backfill soil may need to be modified to give the tree or shrub a better chance of becoming established. The existing soil type might also determine your selection of tree or shrub as some are more tolerant or suitable to your soil type. Refer to the section on MODIFYING SOILS.
2. As the water soaks into the ground, tip the plant container slightly and gently remove the plant. You may have to tap around the container to loosen the root ball from the container sides. In stubborn cases, you may have to cut the container to remove the plant. If the plant is B & B, untie and remove all burlap and twine or wire.
3. Place the entire root ball in the hole with the top of the root ball at grade level and water.
4. Once the water has soaked into the hole backfill with the existing soil from the excavation. Rarely will you need to modify the soil. You may need to backfill in several stages and tamp the soil firmly to remove any air pockets.

5. Create a 'soil saucer' effect around the plant so that water will pool around the trunk or stem. Fill saucer with water and allow it soak in thoroughly. Mulching is desirable to keep the soil from drying out too quickly. But keep the mulch a few inches from the trunk to prevent fungus and rot developing at the trunk. Keep soil moist (not soggy) for two weeks and water regularly for the first growing season. *(Water is the most critical factor for tree establishment, health, and growth. Do not allow the newly planted tree or shrub to dry out. A newly planted tree requires a minimum of 10 litres (2.5 gal) of water every 3 or 4 days for the first month and then once every 7 to 10 days for the next 3 years. Watering frequency should be increased during hot dry weather.)*
6. In general, it is not advisable to stake a tree as it prevents the tree from flexing to environmental forces and developing internal strength. However, if you wish to stake a tree to prevent it from blowing down, ensure that the restraints are not so tight as to girdle the tree and remove it within a year.

NOTE: when planting next to a structure, ensure you allow sufficient space for growth. For example, if your plant will be two feet tall, position it two feet from a fence or wall. This will allow for mature spread and avoid the squished or confined look!

The drawings below show the correct planting of a tree or shrub:



FERTILIZER:

[Fertilizer should be applied](#) to trees and shrubs in early spring or early fall. Organic or an all-purpose fertilizer is best for general use. Research has shown that when adding organic matter to the soil, it is best to incorporate it throughout in the root zone (roughly the diameter of the tree's crown) as opposed to placing it in the planting hole. By incorporating an amendment uniformly in the soil, the entire rooting area becomes a uniform growing environment for the roots. For specific issues or problems concerning a certain plant, consult your local garden centre.

WATERING OF TREES AND SHRUBS:

Newly planted trees or shrubs require more frequent watering than established trees and shrubs. They should be watered at planting time and at these intervals: **1-2 weeks after planting, water daily. 3-12 weeks after planting, water every 2 to 3 days.** Below are some tips for [watering established trees and shrubs](#):

- Water established trees and shrubs with overhead sprinklers.
- Apply a deep watering over the entire root zone area until the top 6 to 9 inches of soil are moist.
- Avoid light watering as this promotes shallow root systems that are susceptible to summer heat and drought stress.
- Water early in the morning to minimize water loss due to evaporation and wind drift.

- Mulching around the base of trees and shrubs helps them take in water and stay healthy.
- During periods of consistent rainfall, a well-sited and well-established tree or shrub will need little additional water. But during long periods without rainfall, established trees and shrubs can suffer or die without timely irrigation.

DROUGHT TOLERANT AND NATIVE PLANT MATERIAL:

Xeriscape or drought resistant plants are a good choice for your landscape design but may require regular watering for the first several years before they are fully established and may require watering during periods of extended drought. It is also a good choice to select plant materials that are native to the area in which you live, as they have a higher probability of thriving in your yard.

MAINTENANCE OF TREE AND SHRUBS:

1. It is recommended that you consult with and hire an ISA (International Society of Arboriculture) certified arborist for most tree pruning as there are technical cuts that if done incorrectly can damage the health of the tree.
2. You might also consider taking a pruning workshop such as the one usually offered during Saskatoon's [Arbor Week](#).
3. If you decide to prune your own trees or shrubs, please watch a comprehensive guide to pruning trees and shrubs at: the **Introduction to Tree Pruning** video (uTube video) by Mike Maddox, Director of the Wisconsin Master Gardener Program, University of Wisconsin-Extension.
4. While pruning requirements for trees and shrubs can be quite specific to the species, here is some general information to consider:
 - Remove dead or dying branches as close to the ground and/or as close to the nearest healthy branch as possible. Slightly angled cuts close to the nearest branching point, are best as they don't allow moisture to accumulate and encourage rot.
 - Many trees or shrubs can be safely trimmed back as much as a third in a growing season, but no more. More pruning than this can cause shock resulting in weak growth or death.
 - [Coniferous trees](#) cannot be trimmed nearly as much and may require special techniques.
 - Generally, pruning can be done at any time of the year. Ideally, pruning for most deciduous plants should be done in late autumn or early spring. At these times of the year the plant is relatively dormant, weather is nicer, and the 'bare bones' are more easily seen, making pruning easier. Exceptions are plants that tend to 'bleed' sap more often in mid to late spring, such as maple or birch. These trees are best pruned in summer when the sap flow is slower. Fall pruning of deciduous trees is best done after the leaves fall as this gives the trees time to reabsorb nutrients in the leaves and branches back into the root system for the winter to prepare for a burst of growth next spring.
 - While coniferous tree and shrubs can be trimmed successfully in summer it is [best to prune](#) them in late winter or early spring during dormancy. Trimming (light pruning for shape) may be done in fall when the needles are shed, and the structure of the tree is more visible.
 - [Flowering shrubs](#) are best pruned shortly after the flowering period is finished in spring. This allows new shoots plenty of time to develop the next season of blooms. Pruning flowering shrubs too late can kill young developing buds, so the next spring there will be fewer blossoms. Generally, blossoms develop on new wood at the growing tips.
 - [Fruit trees](#) can be trimmed in early spring, summer or later fall or winter, depending on your objectives. In general, winter pruning spurs vigorous growth the next summer while summer pruning slows growth.

MAINTENANCE OF A LAWN:

In the face of climate change and the resulting unpredictable rainfall and increasing periods of drought, it is advisable to consider alternatives to the standard practice of planting or installing lawns. The maintenance of a lawn is resource and labour intensive as shown below. Instead, you should consider the planting of native flower and grasses which require less water and fertiliser and much less labour to maintain or start a Native Plant Garden. Planter or shrub beds incorporating xeriscape plant materials should also be considered. Crusher dust, which allows water infiltration should be considered instead of the use of concrete patio and pathway areas.

For more information on how to start a Native Plant Garden, see the Wild About Saskatoon website or click on this [hyperlink](#).

However, you could consider the installation of discrete lawn areas to facilitate children's play areas or other special use areas. If you do decide to install a lawn area, here are the maintenance requirements:

1. Water deeply once a week, roughly 30 minutes per section. Avoid light watering because this will encourage root growth near the soil surface resulting in weak grass.
2. Mow at a height of 1-1/2 inches. This keeps the blades long enough to provide shade for the roots.
3. Do not remove grass clippings from lawn because they decompose and add valuable nutrients and organic matter back into the soil. However, any clumps of clippings should be raked off lightly to avoid killing the lawn beneath.
4. Fertilize 3 times throughout the growing season, first in early May, then in late June, and lastly, in early August.

5. In autumn, remove leaves and any debris, then water thoroughly before the freezing weather hits. This extra moisture will keep the plants from dehydrating during the winter and assist their growth next spring. Alternatively, you may leave a light layer of leaves on the lawn for the winter as protection and then clean it off next spring.
6. Spring lawns cry out for a de-thatching (power-raking) and aerating to kick start lush growth!

MAINTENANCE OF PERENNIALS:

1. Snip off spent flower blossoms (dead-heading).
2. Once a 'killing' frost has hit, it is best cut back the dead foliage the next spring, being careful to avoid damaging any new growth. Leaving the dead foliage over the winter may provide some insulation and moisture retention and provide habitat and shelter birds and beneficial insects.

DEVELOPING YOUR YARD IN STAGES:

NEW YARDS:

1. Complete final grade according to the City of Saskatoon's specifications included in your Building Permit .
2. Construct man-made features (Hard Landscaping), such as fences, patios, sheds, lighting, irrigation, etc.
3. Add Topsoil: a minimum of 6 inches for lawn areas and 12 inches for shrub and perennial beds or gardens.
4. Plant Trees.
5. Plant Shrubs and shape any beds.
6. Plant Perennials.
7. Install Lawn.

EXISTING YARDS:

1. Remove unnecessary/unwanted trees, shrubs, perennials, lawn, or structures. However, before removing plant material, consider designing your landscape for their retention.
2. Do any re-grading as required
3. Construct man-made features (Hard Landscaping), such as fences, patios, sheds, etc.
4. Amend soil as required
5. Plant Trees
6. Plant Shrubs and shape any beds
7. Plant Perennials
8. Install Lawn