Beautiful Lawns and Gardens through

Water-Efficient Landscaping

SAVE WATER, ENERGY AND MONEY.

ATTRACT BIRDS, BUTTERFLIES AND ATTENTION!

A publication from the
Ontario Clean Water Agency
Agence Ontarienne Des Eaux

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Through Water-Efficient Landscaping

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INTRODUCING

THE LOW-MAINTENANCE, LOW-WATER LANDSCAPE

Most of us take great pride in the surroundings of our homes; we spend enormous amounts of time and money tending our home landscapes. We take care in the selection of plants and shrubs. But most of our time is taken up with babysitting our grass. The "turfscape" seems to soak up as much time, attention — and water — as we can apply. And sometimes we wonder not only how we can lighten our load but also use less of one of our most precious resources.

By following the 8 easy steps in this booklet, you can create a beautiful, low-maintenance landscape that is environmentally responsible, practical, attracts birds and butterflies, and saves time and money, too.

Even if you're not ready to abandon your lawn, this booklet will show you how to maintain what turf you keep, with less water — a kinder, gentler way to enhance lawn health and appearance.

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Step 1 ASSESS YOUR PROPERTY AND PLAN YOUR APPROACH

It's worth taking some time to consider your surroundings, even before making a plan. Take special notice of adjacent properties and the impact change would have on them. If you are making a departure from the prevailing landscaping on the street, for example, be sensitive to how you proceed.

As you plan, don't rely on memory; take measurements and make notes.

- Notice the grade — that is the slopes and contours of your surroundings.
- Notice the shadows cast by trees on neighbouring properties as well as your own.
- Notice the areas of shade, full sun or dappled sunlight.
- Take a rough inventory of your landscape and write down what you have, making a rough sketch of particularly valuable plants that might need to be moved or kept in place.
- Look at outbuildings, paths and paving. Are they in good condition or will they need replacing soon; if so, it makes sense to repair or replace them before you create your new surroundings.
- Consider your lifestyle; is it sitting under a tree or playing touch football?
- Look at your grass. Is there some area of turf you want to keep?

- Look at water outlets and power plugs; if you are going to relocate them, do it before you re-landscape.

One planting solution may not be the answer for all of the features you discover. You might want to consider contacting a local landscape professional, nursery or garden centre for help. For instance, you might need a little professional help in creating a scale drawing of your property. It will be invaluable as you create your new outdoor environment.

Step 2 GET TO KNOW YOUR SOIL

The condition of your soil is one of the most important features you should examine. Water efficiency and healthy vegetation depend upon healthy topsoil, at least 5 cm (2 inches) of it.

By simply taking a handful of moist soil and squeezing it, you can tell a lot.

IF IT IS THICK AND HEAVY and clumps together in a hard mass, this indicates clay, which has only small spaces between soil particles and can absorb only about ¼ inch of water an hour; any more and water washes away. Clay tends to hold the small amount of water it takes in.

IF IT'S LOOSE and falls apart easily, this indicates sandy soil, which has large spaces between particles and can absorb up to 2 inches of water an hour; but it tends to dry out very quickly.

IF IT HOLDS ITS SHAPE, but feels crumbly, that's loam soil, which tends to be the happy medium. By combining sand and clay, it can absorb water at a rate between ¼ to 2 inches an hour. Loam soils hold water well, particularly if aerated and mulched.

All three soils can always be improved by the generous addition of organic matter such as peat, manure or homemade compost. Clay can be improved by the addition of sand. These improve the ability to absorb and retain water as well as making the soil easier to work.

> *Even the best soil cannot absorb the 500 to 1,000 litres of water that most home sprinklers discharge in an hour.*

Before you start planting anything, it's a good idea to test your soil, either by taking a small sample from just beneath the surface to a garden centre, or the Ministry of Agriculture and Food, or using readily available soil testing kits. Test at several spots in the garden. To sweeten acid soil, add lime. To reduce alkalinity, add gypsum. Pay particular attention to the needs of the plants you like best, some of which may require a particularly acidic or alkaline soil.

> *All soils can be neutralized by adding organic matter — compost, manure, humus or well-rotted leaves.*

Topsoil is often scraped off the lots of newly built homes; it's a good idea to make sure an adequate amount is returned. But in any event, you can never go wrong by adding organic matter to your soil.

Step 3

IRRIGATE SENSIBLY

Timing is important

For all kinds of watering, it is best to do it early in the morning and certainly in the cooler parts of the day. This allows water to soak into the lawn or garden soil before the sun is high, reducing wasteful evaporation. If you must water in the evening, do it early so that the water can be completely absorbed.

Lawns

The key to successful watering of a lawn is to give sufficient water at the right time of day and no more than once a week. A simple empty tuna can will help you give your lawn just the amount of water that is needed. Set the can in the area of turf you are watering and, when it is filled, you've added about an inch of water — the optimum amount — to the whole area.

Low-rise, in-ground sprinkler heads are best for lawn watering and avoid wasteful runoff from hard surfaces.

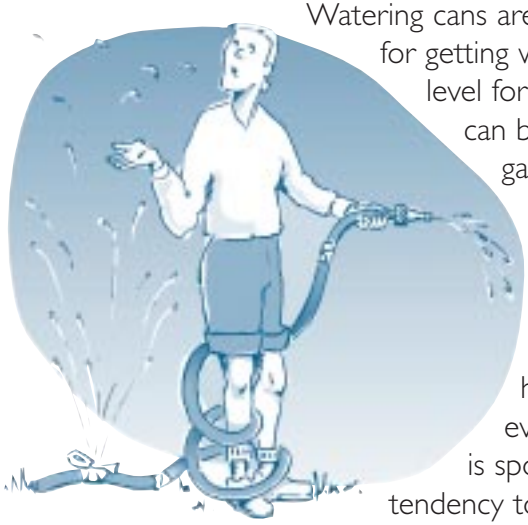
Plants

The key to successful watering of garden plants is to do it at the right time of day, in the right amounts and to ensure that all of the water reaches the roots. Watering the foliage encourages diseases and fungus and can lead to sun burning. Direct water at the base of the plant and water well once a week.

Drip irrigation is the most effective watering method for garden plants and trees; porous tubing, which can be covered with soil or mulch, allows water to seep out and down into the soil at a slow, steady rate. It gets water directly to the roots where it is needed.

Average water use for a drip system is up to 75% less than conventional sprinklers. As a bonus, drip irrigation lines can be hooked up directly to the outlet of your rain barrel.

A simple and inexpensive method for watering mature trees is to use a 20 litre (5-gallon) plastic bucket. Placed against the base of the tree, fill the bucket with water and let it trickle out through 5/16 inch holes punched in two sides right near the ground. Once or twice a month this procedure ensures deep root watering, relieving stress on valuable shade trees.



Watering cans are a tried and true method for getting water down to the root level for garden plants, although it can become tedious if the garden area is large.

Don't be a hoser

The least desirable method for any outdoor watering is the hand-held hose. Not only is evaporation high, coverage is spotty and there is a tendency to misjudge how much water is being applied. Using a hose not only wastes water, it wastes your time.

Remember

- Water slowly and thoroughly and only as fast as the soil can absorb it
- For garden plants, water the roots, not the foliage
- Water when the risk of evaporation is lowest; early morning is best

Slow down evaporation

Mulching is a good technique for reducing water needs because it creates a protective cover or layer on top of the ground around your plantings, trees and shrubs. It offers many benefits, including keeping weeds in check (they crowd out nearby desirable plants and rob them of water), holding moisture in the soil, keeping it cool, and by gradually breaking down to provide valuable nutrients.

Such things as grass clippings, wood chips, bark chips, well-rotted manure, compost, cocoa bean shells and decorative stone are excellent mulch materials. Many municipalities now give away free wood chips made from trimmings in parks and public areas. Most of these materials are organic, meaning that over time they will break down and provide nutrients to the soil.

At the back of this booklet, you will find a table listing various mulches and their characteristics.

Step 4 ALTERNATIVES TO THE TAP

Roll out the barrel

Who says money doesn't fall from the sky? Did you know that you can actually save money, every time it rains, by collecting your own free source of water, suitable for all your outdoor watering needs, with a rain barrel? Using rainwater is an excellent way to participate in water conservation and it can dramatically reduce your household's need for treated municipal water.

The rain barrel alternative can help you lower summer water use and reduce the load on sewers and watercourses. Rainwater is great for indoor and outdoor plants. Untreated, it's soft, free of calcium, lime and chlorine.

Doesn't it seem a waste to pay for tap water that is chlorinated and filtered when your plants don't need it — and don't particularly like the chemicals?

The expression "everything old is new again" certainly applies to the rain barrel. Today's rain barrel is an old idea brought up to date, made of long-lasting materials and with an eye to safety and efficiency. Look for rain barrels with child-safe tops and screens to keep pests and debris out while letting water in. Most modern rain barrels also have built-in overflows, to direct excess water away from the house and an outlet valve to which you can hook a garden hose.

Just locate your rain barrel under a drain spout and collect a handy (and free) supply of natural rainwater. Elevating the barrel slightly will increase the pressure and, if you attach a soaker hose to the outlet valve, you can deliver water directly to the roots of thirsty plants at a rate they can easily absorb.

Cisterns

Once a common fixture in many homes, a cistern is a tank normally located underground or in an attic, that holds stored rainwater. Since it's not treated and should only be used for external purposes, such as gardens and car washing, it may be a sensible option. Check with your municipality for regulations on cisterns in your area.

Nearby streams and waterways

Consider these sources of water, but make sure local regulations give you the right to pump the water out for your external use.

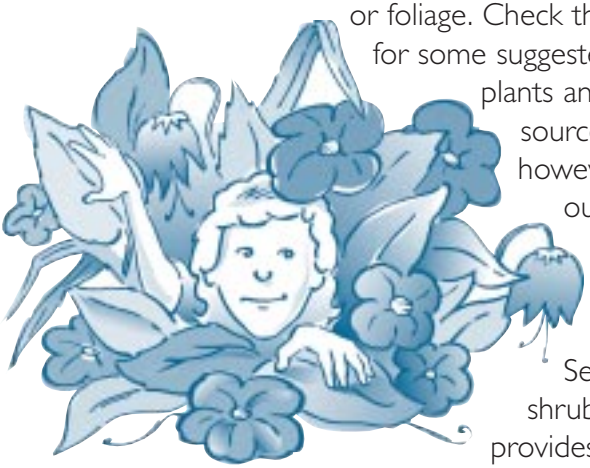
Grey water

Water which has been used previously — dishwasher, humidifier, laundry — may offer an excellent alternative to treated municipal water for outdoor watering needs. Apply to the soil at the base of plants, but avoid using grey water that contains borax or bleach — and, never use water from the toilet. Also, check with your municipality about regulations concerning the use of grey water.

Step 5 GO NATIVE — CONSERVING WATER WITH NATIVE PLANTS

Nobody knows the neighbourhood better than long-time residents and that goes for native plants that have adapted to the soil and climatic conditions of your area. They can thrive on their own, with little need for supplemental irrigation once established. They can create a hardy, beautiful and unusual native landscape that results in minimal maintenance and maximum enjoyment for you.

Native species range from hardy trees and shrubs to plants that can withstand very low water conditions and that thrive in sun, dappled shade and shade. You don't have to plant exotic species to get ground cover or magnificent displays of flowers or foliage. Check the back of this booklet for some suggested trees, shrubs and plants and for some suggested sources. Whatever you do, however, don't take plants out of the wild; buy them from nurseries that breed them for garden use.



Selecting native trees, shrubs and flowers provides benefits that go beyond saving water. After all, native species attract birds and butterflies that have been inhabiting these regions for centuries.

The idea of using native plants may take some getting used to. For example, many of us have been conditioned to regard such plants as Queen Anne's Lace as weeds. But they have many virtues. They are not delicate hybrids, but hardy survivors. Like all plants, they like well-drained soil, but native species have adapted so that they can put up with less-than-perfect soil and moisture conditions.

Their form and colour will give you clues to their uses. For instance, grey leaves usually need sun and big, dark green leaves can take shade. Once you've begun to explore the world of native species, you may find a great many alternatives in terms of coverage, maintenance, colour and texture.

Step 6

ATTRACTIVE SAVINGS — THE BIRD AND BUTTERFLY GARDEN

By using water-efficient landscaping and native plants and by avoiding the use of harmful chemicals on your lawn and garden, you will find that you attract birds and butterflies. Their dazzling colours, movement and sound add a delightful element to a hardy, naturalized landscape that is self-sustaining and low maintenance.

A variety of plants will attract birds to your yard by offering sources of food, cover, nesting material and nesting sites. Native wildflowers, shrubs and trees from your region will all be welcome to the birds.

Installing a shallow bird bath (and keeping it clean and filled) will attract both birds and butterflies. Similarly, if you provide native plants as a food source and augment them with a feeder, there will be lots of opportunities to be a bird and butterfly watcher. At the end of this brochure you will find a helpful list of native plants that both save water and attract birds and butterflies.

To attract hummingbirds, you need to provide plants with lots of nectar-filled flowers that bloom at different times and a variety of types of vegetation

for cover and shelter. A hummingbird feeder is a useful addition.

Butterflies share many of the same preferences as hummingbirds. Pay particular attention to the different life stages of the butterfly and provide plants that meet their needs. For example, common milkweed provides for the Monarch butterfly's complete life cycle from egg to adult. The Monarchs lay eggs on the plant, the caterpillar stage eats the leaves and the nectar-bearing flower feeds the spectacular adult.

TURF IF NECESSARY, BUT NOT NECESSARILY TURF

When considering water-efficient landscaping, it is important to note that grass requires more water and maintenance than any other part of your landscape. Carefully select what grass you need with an eye to its intended use, planting location and maintenance requirements.

Always look for drought-tolerant varieties. New varieties of turf mixes such as perennial rye grasses and fine fescue have been developed to be hardy and slower-growing to reduce maintenance and watering. Ask your local landscaper or nursery to recommend a mixture that will withstand heat and infrequent watering while resisting disease. On a new property, make sure the contractor puts back sufficient topsoil and ask for sod if possible.

Grass will provide the most functional benefit where there is to be hard use, as in a recreational area. Avoid using grass as a fill-in for your landscape and

make it only one element of your landscape design rather than your central focus.

Fertilize your turf in fall and lightly in the spring; a well-fertilized turf develops deeper roots and denser growth making it less susceptible to drought and disease. Aerate the lawn annually. This relieves soil compaction, improves penetration of water, oxygen and fertilizers and promotes deeper root growth. Aerators can be rented, or contractors will do it for you.

Mow your grass to a height of 5 cm (2 inches) and reduce stress on the lawn by mowing it only when it is dry and in the cooler parts of the day. It's best to cut only about a third of the grass blade each time.

In dry summer conditions, let your lawn go dormant. It is not dead, it has simply slowed down its growth and this is natural. When higher rainfall levels return, it will green up. Avoid artificially keeping your lawn from growing dormant by heavy watering. If a lawn is watered back to a green condition then allowed to go dormant again in the same season, it causes serious stress. If drought conditions are extreme, watering every other week will help the turf survive but will not promote greening.

If you cut down on grass, not only will you save time spent cutting and weeding it, you'll save water, save on the use of chemicals and fertilizers and free up storage space now occupied by mowers, aerators, and spreaders.

There are many plant materials that can replace traditional grass and still work well in areas such as slopes and shady spots. These range from Snow-in-Summer to Periwinkle. A more complete

list of alternative plantings is provided later in this brochure.

Remember that plantings alone are not the only alternative to lawns. Permanent structures such as decks and patios can reduce the space traditionally devoted to lawn. Decks provide more usable space and, because you're not mowing, more time to use them! Hard paving in brick and stone and areas of wood chip cover can also be attractive, particularly when they complement tub plantings and raised beds.

Step 8 THE WATER-EFFICIENT FLOWER AND VEGETABLE GARDEN

Vegetable and flower gardens are delightful additions to our environment. Although these areas require less maintenance than your lawn, they are not maintenance-free, but properly managed, they can be water-efficient, healthy and attractive, while saving time. Here are some ways to make your flower border or home vegetable garden more water-friendly.

Condition the soil

The addition of organic matter throughout the growing season adds nutrients to your garden soil and improves its ability to absorb and hold water.

Aerate the soil

Aerate all garden areas several times a month. As with your lawn, aeration with a hoe or a cultivator relieves compaction (try not to walk on growing areas), promotes deeper root growth and oxygenation and allows water to penetrate more easily.

Pull those weeds

Weeds compete with your garden plants for available water and nutrients and often harbour insects and disease. Pull a weed and save some water.

Remember to mulch

Applying mulch to help control weeds and reduce water loss is extremely beneficial to flower and vegetable gardens. Black plastic mulches hold soil heat and are ideal for heat-loving vegetables like tomatoes and green peppers. For cooler season vegetables, organic mulches are more suitable. Organic mulches can be put directly onto the soil or spread over newspapers, but wait until the soil warms up in the spring.

Choose your plants carefully

In your vegetable garden, choose varieties that germinate early (when moisture is more available). Note that hybrid varieties with shorter growing periods may actually require more water, if over a shorter period. So-called traditional or "heritage" varieties are sometimes more adapted to dry spells. And remember, if you group plants according to their water needs it will ease your workload.

APPENDIX

Alternative plantings to traditional lawns

- Perennial rye grasses and fine fescue — a hardy, water-efficient grass mixture
- Snow-in-summer (Cerastium tomentosum) — grey foliage and little white flowers
- Native strawberry (Fragaria) — slopes, low and dense ground cover
- Cinquefoils (Potentilla spp.) — short, runner spreader
- Moss Pink (Phlox subulata) — good spreader
- Pinks (Dianthus) — a spreader
- Winter Creeper (Euonymus fortunei) — a vine-like spreader that enjoys full sun
- Rock Cress (Arabis alpina) — good spreader, tough and hardy
- Bush Roses (Rosa) — hardy and do well in sunny, well-drained sites
- Japanese Spurge (Pachysandra) — excellent ground cover for deep shade
- Periwinkle (Vinca) — excellent ground cover, beautiful blue flowers

Water-efficient trees

Common & Latin Name	Bloom Time	Mature Height	Exposure	Remarks
Trident maple *Acer buergeranum*	spring-fall	22'		most drought tolerant maple
Bitternut hickory *Carya cordiformis*	late spring-fall	11'		buds bright yellow
Pignut hickory *Carya glabra*	spring-fall	60'		leaf dark, yellowish-green
Shagbark hickory *Carya ovata*	spring-fall	100'		shaggy bark
Hackberry *Celtis occidentalis*	spring-fall	40' to 60'		shade tree
Maidenhair *Ginkgo biloba*	spring-fall	50'		bright yellow leaves in fall
Eastern Red Cedar *Juniperous virginiana*		40'		commonly used as windbreak
Goldenrain Tree *Koelreuteria paniculata*	late summer	25'		very colourful in bloom
Hop Hornbeam *Ostrya virginiana*	spring-fall	36'		shaggy bark
Scotch Pine *Pinus sylvestris*		35'		prune to shape and thicken
Japanese Black Pine *Pinus thunbergiana*		35'		highly drought tolerant
Bradford Pear *Pyrus calleryana*	spring	30'		drought tolerant and very colourful
White Oak *Quercus alba*	spring-fall	100'		reddish purple in fall
Bur Oak *Quercus macrocarpa*	spring-fall	65'		long life, attracts wildlife
Black Oak *Quercus velutina*	spring-fall	60' to 75'		
Japanese Pagoda Tree *Sophora japonica*	summer	50'		highly drought resistant

= full sun = *sun* = partial shade = shade

Ask your local sources for information on trees that are native to your area.

Water-efficient shrubs

Common & Latin Name	Bloom Colour	Bloom Time	Mature Height x Width	Exposure	Remarks
Japanese Barberry *Berberis thunbergii*	yellow	spring	1-2' x 3-4'	☀ ⛅	hedge with red berries
Butterfly Bush *Buddleia davidii*	lilac	summer-fall	6-10' x 8-10'	☀	butterfly magnet
Siberian Peashrub *Caragana arborescens*	yellow	spring	9-12'	☀ ⛅	also called Weeping Caragana
Smokebush *Cotinus coggygria*	pink-purple	May-Jun	8-10' x 6-10'	☀	highly drought tolerant
American Hazelnut *Corylus americana*			8-10'	☀	attracts wildlife
Bush Honeysuckle *Diervilla lonicera*	brownish-red	Jun-Jul	20-40"	☀ ⛅	good ground cover
Gold Coast Juniper *Juniperus chinensis aurea*			3' x 4-5'	☀	drought tolerant
Japonica *Kerria japonica*	yellow	early spring	4-6'	☀ ⛅	very showy plant
Pink Beautybush *Kolkwitzia amabilis*	pink	late spring	8-12' x 5-7'	☀	very showy plant
Winter Honeysuckle *Lonicera fragrantissima*	white-pink	early spring	6-8'	☀ ⛅	blooms before leaves
Trumpet Honeysuckle *Lonicera sempervirens*	orange to red	spring-summer	15-20'	☀ ⛅	very fragrant
Globe Blue Spruce *Picea pungens*			2-5' x 3-4'	☀	bluish-white needles
Dwarf White Pine *Pinus strobus 'Nana'*			4-5'	☀ ⛅	highly adaptable
Shrubby Cinquefoil *Potentilla fruticosa*	yellow	Jun-Oct	1-4'	☼	drought tolerant
Wild Crabapple *Pyrus coronaria*	pink	May	6-8' x 6'	☀	small fruit
Common Lilac *Syringa vulgaris*	lilac	Apr-May	6-10' x 6-8'	☀	very fragrant
Snowball Bush *Viburnum opulus*	white	May	9-10' x 8-12'	☀	very showy

☀ = full sun ☼ = *sun* ⛅ = partial shade ☁ = shade

Ask your local sources for information on trees that are native to your area.

Water-efficient flowers

Common & Latin Name	Bloom Colour	Bloom Time	Mature Height	Exposure	Remarks
Rock Cress *Arabis alpina*	white or pink	early spring	3-4"		spreader, grey-green leaf
Silver Mound Artemisia *Artemisia schmidtiana*	cream	summer	12-24"		feathery silver leaves
Sweet Woodruff *Asperula odorata*	white	summer	36"		spreader, light green leaf
Wild Columbine *Aquilegia canadensis*	red with yellow	late spring/ summer	16-32"		attracts hummingbirds
California Poppy *Eschscholzia californica*	orange	Jun-Nov	8-10"		delicate silvery leaves
Red Wintercreeper *Euonymus fortunei*		summer	12-14"		vine-like
Prairie Smoke *Geum triflorum*	pink	spring	6 - 16"		feathery pinkish-grey seed heads
Woodland Sunflower *Helianthus divaricatus*	yellow	Aug-Oct	24-40"		long blooming
Sargent Juniper *Juniperous chinensis*	yellow	spring	12"		very small, yellow flower
Rough Blazing Star *Liatris aspera*	lavender	Jul - Aug	16-48"		seeds attract goldfinches
Lilyturf *Liriope muscari*	lilac or white	Aug-Sep	9"		clump-forming grass
Wild Bergamot *Monarda fistulosa*	lavender	Jul-Aug	24-40"		attracts butterflies
Evening Primrose *Oenothera biennis*	yellow	Aug	24-40"		attracts seed-eating birds
Oriental Poppy *Papaver orientale*	white, pink, red, orange	Jun	24-36"		
Moss Pink *Phlox subulata*	pink, red or blue	early spring	4-6"		
Petite Pink Rose *Rosa pimpinellifolia*	pink	spring/ 3 wks	24-48"		very drought resistant
Lamb's Ear *Stachys lanata*	pink-red	summer	24"		carpet of grey leaves

Desert type plants

Common & Latin Name	Bloom Colour	Bloom Time	Mature Height	Exposure	Remarks
Prickly Pear *Opuntia fragilis*	yellow or purple	Jun-Aug	6"		small pads on spines
Prickly Pear *Opuntia humifosa*	yellow	Jun-Aug	12"-24"		flat green pads with spines
Dwarf Cactus *Pediocactus*	pink	late spring	3"-4"		ball-shaped pads
Showy Stonecrop *Sedum spectabile*	pink, red or white	late summer-fall	24" x 15"		attracts bees and butterflies
Hens and Chicks *Sempervivum species*	yellow, red, white	mid-summer	4" x 8"		
Adam's Needle *Yucca glauca*	white	Jun-Aug	24" x 60"		low growing, with single tall flower

= full sun = *sun* = partial shade = shade

Ask your local sources for flowers and desert plants that are native to your region.

Mulches that help retain moisture

Material	Cost	Depth	Breakdown	Comments
Bark, mixed	medium	2 - 3"	slow	replace in 2 years
Cocoa hulls	high	1"	slow	chocolate smell
Compost	medium	1 - 3"	fast	feeding mulch
Cork, ground	high	1 - 2"	slow	high water retention
Grass clippings	low	1"	fast	mix with peat
Hay	low	6 - 8"	fast	2 - 3 year old hay
Landscape fabric	high	1 layer	slow	put under mulch
Leaf mould	low	1.5"	fast	feeding mulch
Leaves	low	4 - 6"	slow	feeding mulch
Newspaper	low	2 layers	1 season	put under mulch
Peanut shells	medium	1 - 2"	fast	mix with other mulch
Stone	high	2 - 4"	slow	permanent mulch
Straw	low	6 - 8"	slow	adds nitrogen
Walnut Shells	medium	1 - 2"	slow	adds nitrogen
Wood chips	medium	2 - 4"	slow	carpenter ants

Plantings for specific conditions

Ground covers for shady slopes

- Baneberry
- Cardinal Flower
- Forget-me-not
- Herb Robert
- Pennsylvania Sedge
- Wild Ginger

Shrubs for shady slopes

- Alpine Currant
- Coral Berry
- Cranberry
- Elders (some)
- Honeysuckle Kerria
- Red Osier Dogwood
- Witch Hazel

Ground covers for wet, shady conditions

- Astilbe Xarendsii
- Ostrich Fern
- Sensitive Fern

Shrubs for wet conditions

- Aspen
- Button Bush
- Highbush Cranberry
- Ice Bush
- Willows (most)

Plants for sunny, dry conditions

- Adam's Needle
- Black-eyed Susan
- Blue Indigo
- Butterfly Milkweed
- Common Thrift
- False Rock Cress
- Flowering Spurge
- Moss Pink
- Poppies (Oriental & California)
- Rough Blazing Star
- Silver Mound Angel's Hair
- Stonecress
- Yucca

Shrubs for dry soil

- American Hazel
- Blueberry
- Grey Dogwood
- Sumac (smooth, staghorn)

Trees for dry soil

- Eastern Red Cedar
- Honey Locust
- Oak (Red, White, Black, Bur)
- Pine (all varieties)
- Sasafras
- Trident Maple

Other sources of information

To find out more about native species and their application, please contact one of the following organizations:

Ojibway Nature Centre
5200 Matchette Road, Windsor, Ontario N9C 4E8
(519) 966-5852 www.city.windsor.ca/ojibway/index.htm

Tallgrass Prairie and Savannah Association
World Wildlife Fund, 245 Eglinton Avenue E., Suite 410,
Toronto, Ontario M4P 3J1
(416) 489-4567 www.wwfcanada.org

For additional information on ecological restoration and a complete directory of nurseries, garden centres and consultants in Ontario that deal in native plant material, contact:

The Society for Ecological Restoration
Trent University, ERS Department
P.O. Box 4800, Peterborough, Ontario K9J 7B8
(705) 748-1634

Other resources:

Canadian Irrigation Society
54 Porterfield Crescent, Thornhill, Ontario L3T 4S7

Wildflower Society
75 Ternhill Crescent, North York, Ontario M3C 2E4

Landscape Ontario Horticultural Trades Association
1293 Matheson Blvd. East, Mississauga, Ontario L4W 1R1

Ontario Association of Landscape Architects
170 The Donway West, Suite 120,
Don Mills, Ontario M3C 2G3

Or your local regional office of the Ontario Ministry of Agriculture, Food & Rural Affairs

FOR FURTHER READING

Water-efficient landscaping

Gardening with Groundcovers and Vines by Allen Lacy. Harper Collins, New York, N.Y., 1993

Taylor's Guide to Water-Saving Gardening. Houghton Mifflin, 1990

The Wild Lawn Handbook: Alternatives to the Traditional Front Lawn by Stevie Daniels. McMillan Publishing, New York, N.Y., 1995

Water Conserving Gardens and Landscapes by John M. O'Keefe and Velmont Pownal. Storey Communications, 1992

Waterwise Gardening by Lauren Springer, Prentice Hall, Toronto, 1994

Xeriscape Gardening by Connie Ellefson, Thomas Stephens, Doug Welsh. Maxell McMillan Publishing, Don Mills 1992

Landscaping for Birds

A Garden of Birds by A. Dion. Brimar Press, Quebec, 1988

Bring Back the Birds: A Community Action Guide to Migratory Songbird Conservation (Eastern Canadian Edition). Produced by Conservation International Canada, Toronto, 1994

How to Attract Birds by J. Mckinley. Ortho Books, Berkeley, California, 1990

Landscaping for Wildlife by the Ministry of Natural Resources, 1990

The Hummingbird Book: The Complete Guide to Attracting, Identifying and Enjoying Hummingbirds by Donald and Lillian Stokes. Little, Brown and Company, Toronto, 1989.

Trees, Shrubs and Vines for Attracting Birds: A Manual for the Northeast by R. M. Degraaf and G. M. Wittman, University of Massachusets Press, Amherst, 1979

Naturalistic Landscaping

A Guide to Natural Woodland and Prairie Gardening by R. S. Dorney et al. Ecoplans Ltd., Waterloo, 1978

Landscaping with Nature by Jeff Cox. Rodale Press, Emmaus, Pennsylvania, 1991

Natural Landscaping: Designing with Native Plant Communities by J. Diekelmann and R. Shuster. McGraw-Hill, New York, N.Y., 1982

Prairie Restoration for the Beginner by Ahrenhoerster and T. Wilson. Prairie Seed Source, North Lake, Wisconsin, 1981

Butterfly Gardens

Butterfly Gardening by the Xerces Society. Sierra Club Books, San Francisco, 1990

Butterflies Aren't Free: A Commitment for Establishing a Prairie Garden by Larry Lamb. Wildflower magazine, Spring, 1985. Published by the Wildflower Society.

The Butterfly Book: An Easy Guide to Butterfly Gardening, Identification and Behaviour by Donald and Lillian Stokes. Little, Brown and Company, Toronto, 1991

The Butterfly Garden by Matthew Tekulsky, The Harvard Common Press, Boston, 1985

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ONTARIO CLEAN WATER AGENCY

1 Yonge Street, Suite 1700,
Toronto, Ontario M5E 1E5
Telephone: 1-800-667-6292
www.ocwa.com