# **YardScaping**

Five steps to make your piece of the planet a healthier place to live.

# ...for a healthy Maine

### Why YardScape?

Our yards are our outdoor homes: fun, beautiful, great spaces for relaxing. But in taking care of them, we often use water inefficiently, produce a lot of yard waste, and rely too much on fertilizers and pesticides that can affect the environment and our families' health.

The good news is, by making some simple changes in how we care for our yards we can:

**Save money** on water, waste disposal, fertilizers, and pesticides.

Save time – working with nature is easier, in the long run

**Protect our families' health** by reducing contact with fertilizers and pesticides.

#### **Protect the environment**

- Conserve our precious water supplies, and leave more for fish and other wildlife
- Keep our rivers, lakes, ground water, and marine waters clean by reducing the need for fertilizers and pesticides
- Recycle yard trimmings at home into free fertilizer



### Put nature to work in your yard

Nature wastes little. In natural landscapes, soil life recycles dead plants into food for new plant growth. Plants are adapted to the water, sun, and soil available at their site. And the wide variety of plants, soil organisms, insects, and animals keeps most pests and diseases in check.

By working with nature in your yard, you can have a great looking landscape that's easier to care for and healthier for families, pets, wildlife, and our great Maine environment.



### How? It's easy... Start with these 5 steps:



#### To learn more:

- Read about the 5 steps in the following pages
- Follow the web links on the back cover, or
- Call your local Cooperative Extension office, Conservation District, garden club, or garden center.



### Build healthy soil with compost and mulch

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### Soil is alive, and soil life matters.

A teaspoonful of healthy soil contains about 4 billion organisms! This community of beneficial soil creatures keeps our landscapes healthy by:

- Creating a loose soil structure that allows air, water, and plant root growth into the soil
- Recycling nutrients and making them available to plants
- Storing water until plants need it
- Protecting plants from pests and diseases

### Feed your soil with compost.

Dig or rototill in 1–3 inches of compost (up to 20–25% compost in your soil mix) when you're making new beds or planting lawns. Compost works on any soil. It helps sandy soils hold nutrients and water, and loosens clay soils. Compost feeds the beneficial soil life, so it can feed and protect your plants.

#### Make compost at home, or buy it in bags or bulk.

Leaves, chopped stalks, flowers, and grass all make great compost in a pile or bin – just add water, mix it up once a week, and wait 6 months. Vegetable kitchen scraps also make good compost, but should be composted in a worm bin or other rodentresistant container to prevent pest problems.



#### Get to know your soil. Dig in and take a look.

Use a trowel or shovel to dig 8–12 inches deep. You may find sand (which doesn't hold water well), clay (which won't let water in or out), compacted layers, or light color (which indicates low organic matter and soil life). Compost improves all types of soil.



### Mulch it!

"Mulch" is a layer of organic material like leaves, wood chips, compost, or grass clippings that you spread in spring or fall around your plants. (Keep it about an inch away from stems.) Mulch conserves water, reduces weeds, and feeds the soil for healthier plants.

### **Mulch improves:**

- Flower beds and vegetable gardens Use 1–3 inches of leaves, compost, or grass clippings.
- **Trees, shrubs and woody perennials** Use 2–4 inches of woody mulches, like wood chips (get from a tree service) or bark. Fall leaves also work well.
- **Lawns** Mulch your lawn? Yes, you can "grasscycle" (leave the clippings) and spread compost see Step 5 on lawns.

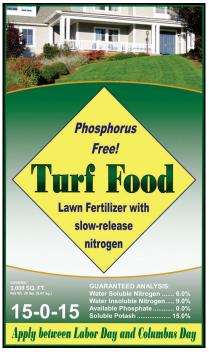
### Need fertilizer? Go phosphorus free!

Relying too heavily on fertilizers and pesticides can damage beneficial soil life, leading to soil compaction and unhealthy plants. These products can also wash off into ground water, rivers, lakes, and bays, where they can harm people, fish and other wildlife.

Most trees and shrubs can get all the nutrients they need from the soil, and mulching once a year. But perennials, vegetable gardens, and lawns sometimes need extra nutrients. When shopping for fertilizers, look for the words **"phosphorus free"** and **"slow release."** These fertilizers are less likely to cause unhealthy algae growth in our rivers, lakes, and bays, and they feed your plants slowly. Slow feeding makes plants healthier and reduces insect and disease problems.



Mulch reduces weeds, conserves water, and builds healthy soil for healthier plants. Spread mulch 1–4 inches deep and at least 1 inch away from plant stems.



### Remember, healthy plants grow in healthy soil.

- To learn how to compost, see the **Resources on back cover**.
- For compost sources in your area, contact garden centers, farmers, landscapers, or your local solid waste utility.



# 2

### Plant right for your site

### Get to know your yard.

Where is it sunny or shady at different seasons? Dig in a few places to see where your soil is sand or clay, soggy year 'round or bone dry. Look around – are there plants with problems? Where do you want play areas, vegetables, color, views, or privacy? How much lawn do you need, or want to maintain? What kind of plantings would fit your yard?

### Choose the right plant for the right place.

Select plants that grow well in the Northeast and fit the sun, soil, and water available in your yard. Avoid using invasive alien plants. Some native plants provide better habitat for wildlife. Think about how big a tree or shrub will be when mature (especially next to houses or under powerlines). Look around at neighbors' yards, nurseries, books, and demonstration gardens for plants that do well in sites similar to yours.



Yardscaping Gardens at Back Cove in Portland

### Pick plants that resist pests and use less water.

Many pest and disease resistant varieties are available now – ask at nurseries or Master Gardener clinics (see the resources on the back cover). Choose plants that are "low water use" or "drought tolerant." After they're established (2–3 years) many will thrive just on our limited summer rainfall most years, saving you time and money on watering.

### Group plants by their needs.

Put plants that need full sun, or shade, or rich soil, or regular irrigation together with those with similar needs. That way you don't have to water the whole yard to reach one thirsty plant!

### YardScaping in Five Steps

### Lawns and vegetables are picky!

They need 6–8 hours of full sun, level well-drained soil, and irrigation. Limit lawn areas to where you need them. Other plants are better for shade, soggy sites, or slopes, and require less maintenance.



### Give plants a good start.

Prepare the soil by mixing 20–25% compost into soil in planting beds. (For trees and shrubs, mix compost into

the whole planting bed, or just plant in native soil and mulch well. Don't add compost just to their planting holes – that can limit root growth.) Then spread out the roots, add water, and tamp soil back in for good root contact. To prevent root problems, set plants so that the top of the root ball is exposed 1–2 inches above soil level. Mulch new plantings well, and be sure to water even drought tolerant plants during their first 3-5 summers, until they build deep roots. Don't volcano mulch. Dig a hole as deep as the root mass and twice as wide, and spread the roots out before planting.



#### Make space for wildlife.

You can invite birds, butterflies, and other wildlife into your yard, protect shorelines and fish, and make a more attractive landscape.

- Plant trees, shrubs, and perennials, especially ones with flowers and fruit.
- Avoid invasive alien plants see Resources on back.
- Plant in layers (ground cover, shrubs, and trees) so your landscape provides diverse habitats.
- Avoid using pesticides they can affect birds, beneficial insects, and aquatic life when rain washes them through storm drains into rivers, lakes and bays.
- Provide a clean bird bath or other small moving water source.
- If space allows, leave dead standing trees and brush piles as homes for wildlife.
- Leave wild "buffer" areas of native plants along slopes, streams, shoreline, and fencelines.



For help selecting the right plants, see the **Resources on back cover**, or talk to neighbors, garden centers, or landscapers.

## 3

### **Practice smart watering** for healthier plants

### Too much of a good thing

Did you know that watering too much or too little is the cause of many common plant problems? You can have healthier plants, save money on water bills, and conserve precious water by learning to give your lawn and garden just what they need, and no more.

### Water deeply, but infrequently.

Most plants do best if the soil is allowed to partially dry out between waterings. For lawns, a purple cast or footprints showing

indicate that it's time to water. Vegetables and other annuals should be watered at the first sign of wilting, but tougher perennials (plants that live several years) only need water if they stay droopy after it cools off in the evening. Trees and shrubs (especially natives) usually need

little watering once their roots are fully established (2–3 years), except in very dry years.

### Moisten the whole root zone.

Watering deeply builds deeper, healthier root systems. To see if you are watering deep enough to moisten the whole root zone, dig in with a trowel an hour after watering to check for moisture.

### Make every drop count.

Some easy ways to lower water bills and get more water to plants include:

- Choose drought tolerant plants. Once established they can often thrive just on rainfall.
- Build your soil with compost and mulch to hold water and prevent evaporation.
- Use soaker hoses or drip irrigation on beds they save 50% or more compared with sprinklers!
- Use a timer that screws onto the faucet (available at garden stores) to water just the right amount.
- Water lawns separately from other plantings. Make sure sprinklers aren't watering the pavement too.



Soaker hoses save water! Cover them with mulch to save even more.

- When soil is dry or compacted it won't absorb water quickly. If water puddles, the lawn may need core aeration to reduce compaction.
- Water in the early morning to reduce disease problems and conserve water.

### Use automatic irrigation systems efficiently.

Automatic systems can actually waste lots of water, *or* be fairly efficient, depending on how you set and maintain them.

- Have a professional test, repair, and adjust your system annually.
- Inspect the system while operating once a month – look for leaks or heads that are plugged or misdirected.
- Install a rain shutoff device (ask your irrigation expert where to find them).
- Adjust the watering schedule at least once a month through the season plants need a lot less water in May and September than they do in July and August.



Water the lawn in early morning to reduce disease and water loss.

#### Let the rain soak in.

Heavy rain rushes off roofs, pavement, and compacted soil. This causes flooding downstream, erodes stream banks, and muddies the water, which harms fish and other wildlife. You can help slow this winter runoff, and help the soil hold the moisture plants need in summer.

- Direct downspouts out into lawns, plant beds, rain gardens, or "dry wells."
- Use compost and mulch to reduce erosion and help rain soak in.
- Use open pavers, gravel, or other pavement options that let rain through so it can soak into the soil.
- Plant dense strips of native trees, shrubs, and groundcovers next to streams, lakes, and ditches to stabilize the soil, and to slow and filter runoff.

See the *ThinkBlue Maine link on back cover* for more tips on water conservation in your home, yard, or business.









### Most bugs are good bugs.

Only about 5% of the bugs in your yard are pests. "Good bugs" like the ground beetle (above) and the green lacewing (below) help control pests.

# Think twice before using pesticides

The Maine Board of Pesticides Control has found over 25 pesticides (weed, fungus, and bug killers) in our local waters, many at levels that may damage aquatic life. Overuse of these products can also damage soil and plant health. And studies find increased health risks among families that use lawn and garden pesticides, especially among pets and children. The good news is that we can minimize reliance on pesticides and still have beautiful landscapes.

### Start with prevention.

- Build healthy soil with compost and mulch soil organisms protect plants from many disease and insect pest problems.
- Select pest-resistant plants, and put them in the sun/shade and soil conditions they prefer.
- Remove diseased plants, and compost plant debris in fall to reduce hiding places for insect pests.
- Pull weeds before they go to seed and spread.
- Use a variety of plants, so if pests attack one plant, others can fill its place. Spoon feed plants with slow release nitrogen. Too much soluble nitrogen encourages insect and disease attack.

### Identify the problem before you spray, squash, or stomp.

The problem could really be incorrect mowing or pruning, improper watering, or other easily corrected practices. Or that scary bug could actually be a beneficial "good bug" that eats problem pests. Whether it's a bug, disease, or weed, you need to identify it to know how to effectively manage it.

Accept a little damage – give nature time to work.

Natural predators often bring pests under control, but they need time to work. Don't spray at the first sign of damage – nature may control it for you, or plants often just outgrow the damage.



### If a pest or weed problem develops, choose a low risk solution.

- Physical controls like traps, barriers, fabric row covers, or repellants may work for some pests.
- Long handled weed pullers pop dandelions out easily.
- Mulching once a year reduces weeds in beds.
- Beneficial insects that prey on problem bugs are available for sale, or you can attract these "good bugs" by planting a variety of plants that provide pollen and nectar all year.

### Use pesticides as the last resort.

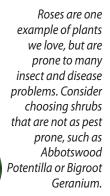
If you must use a pesticide, use baits, gels, or other ready-to-use products, and spot apply them. Don't spread pesticides all over the yard to kill a few weeds or bugs. Spot-applied products reduce the risk, compared to products that must be applied as a broadcast treatment, like "weed and feed."

It may be best to have a professional who has all the protective gear do the application, but don't use services that spread pesticides over the whole yard or spray on a calendar schedule. You want to apply pesticides only when and where you really have a problem. Follow label instructions exactly – more is not better. And be sure to keep children and pets out of application areas until sprays have dried or the re-entry period on the label has passed.

#### Replace problem plants with pest-resistant ones for a healthier, easier to care for yard.

If a plant, even a tree, has insect pest or disease problems every year, it's time to replace it with a more tolerant variety or another type of plant that doesn't have these problems.

Rain falling on most of our yards and storm drains runs straight to the nearest waterway – so let's keep that runoff clean! See the **Resources on back cover** for help identifying and controlling problem pests, plant diseases, or weeds, while reducing fertilizer and pesticide use.





Long handled weed pullers pop dandelions out easily.





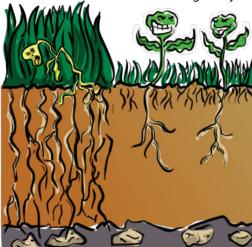


### **Practice low-input lawn care**

It's easy to put all these steps to work on our lawns, where we often use the most pesticides, fertilizer, and water, produce the most waste, and work too hard!

### Mow higher (3-4 inches), mow regularly, and leave the clippings.

"Grasscycling" or leaving the clippings on the lawn doesn't cause thatch build up. But it does make lawns healthier. Soil organisms recycle the clippings into free fertilizer, and you save all the work of bagging. Modern mulching lawn mowers make grasscycling even easier.



### Use "phosphurus free" or "slow release" fertilizers.

Don't try for a deep blue-green color – healthy lawns in our region are a lighter meadow green.

- The best time to fertilize is between Labor Day and Columbus Day, when grass plants are building root reserves for the next year.
- If you must fertilize in spring, wait until June, when the soils are warmer and the grass begins to green-up.

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### If you must, water deeply, to moisten the whole root zone, but less frequently.

Let the soil dry between waterings to prevent lawn disease and save water. Lawns only need about one inch of water a week in summer, including rain, to stay green. Or you can let areas of lawn that don't get heavy wear go brown and dormant – just water once a month,

and they'll bounce back in the fall.

#### How much is one inch of water a week?

Scatter tuna cans or other straight-sided containers on your lawn, turn on the sprinkler, and check the time. When most cans have 1 inch of water in them, turn off the sprinkler and check how long it ran. Now you know how long to run your sprinkler each week in summer, if you want to keep your lawn green.

Illustration courtesy of Paul Wheaton, richsoil.com

Taller blades of grass shade the soil surface which reduces germination of weed seeds. particularly crabgrass.

#### Improve poor lawns with aeration, overseeding, and top-dressing with compost.

- Aerate in spring or fall to improve root development and water penetration.
- Follow by overseeding thin areas. Check the resources on the back cover for low maintenance grass seed blends and sources.
- Then "top-dress" by raking in 1/4 to 1/2 inch of compost to cover the seed and improve the soil.
- Repeat these steps annually as needed to improve high-maintenance or poor lawns.
- The best time to plant grass seed is late August-mid September. Choose tall or fine fescue blends for low maintenance lawns.

### Think twice before using "weed and feed" or other pesticides.

Accept a few weeds, and crowd out problem weeds by growing a dense healthy lawn. Use a long handled weed puller to easily remove dandelions without bending over. Weeding is easiest when the soil is moist. If you want to use weed killer, don't spread "weed and feed" all over your lawn – just spot spray the problem weeds.



You can rent an aerator, or get a yard service to aerate for you.



#### Honey, I shrunk the lawn!

Consider alternatives to lawns on steep slopes, shady areas, or near streams and lakes. Grass grows best on level, well-drained soil in full sun or part shade. And it takes a lot of work (and sometimes fertilizers and pesticides) to maintain. Look for other plants better suited to soggy soil, slopes, or heavy shade. Try to leave or plant a "buffer" of dense, native vegetation along streams and lakes. It will filter and slow runoff, shade and cool the water, provide homes for wildlife, and prevent bank erosion too.

**Go to YardScaping.org** for great information about lawn care in Maine. Ask your local garden center about best planting dates for grass and other plants.



# **YardScaping**



### Spring

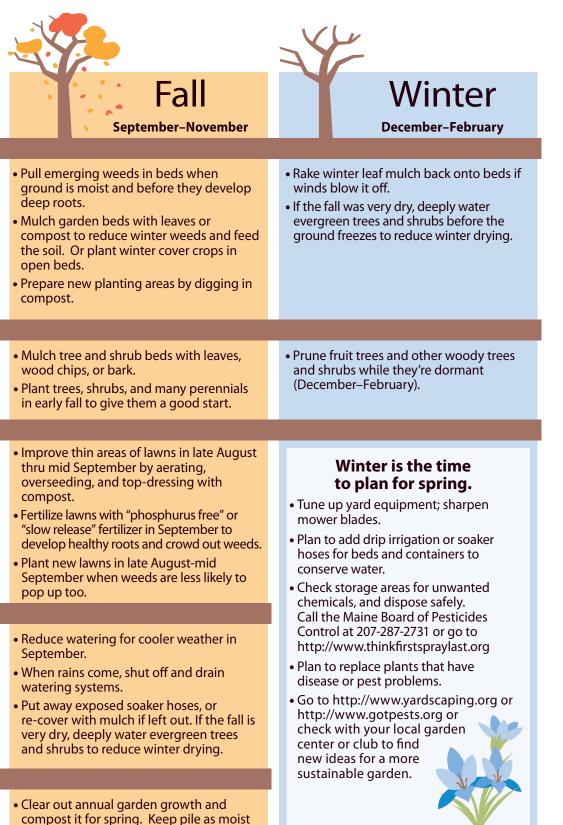
March-May

### Summer

June-August

Flower and Vegetable Gardens	
<ul> <li>Prepare new planting beds and gardens by mixing in 1–3 inches of compost.</li> <li>Pull weeds when they first start growing, while soil is moist and roots are short, before they go to seed.</li> <li>Buy plants that resist disease and use less water.</li> <li>Pest Problems? See the <b>Resources on</b> <b>back cover</b>.</li> </ul>	<ul> <li>Mulch flower and vegetable beds with compost or grass clippings to conserve water and control weeds.</li> <li>Use fabric row covers to keep pests off sensitive vegetables.</li> <li>Identify bugs before you spray, squash, or stomp – they may be "good bugs" that eat pests.</li> </ul>
Tree and Shrub Beds	
• Prepare new tree and shrub beds by mixing compost into the entire bed (not just planting holes). Or plant trees in native soil and mulch well.	• Mulch shrub and tree beds with wood chips, leaves, or bark once a year to conserve water, reduce weeds, and feed the soil, but don't volcano mulch.
Lawns	
<ul> <li>Start mowing, about 3–4 inches high for most lawns. "Grasscycle" – leave the clippings for free fertilizer.</li> <li>For lawns in poor condition: aerate, overseed, and top-dress with ½ inch of compost.</li> <li>Contrary to popular belief and common practice, spring is not the best time to fertilize a lawn. At that time, nitrogen will promote germination of weed seeds.</li> </ul>	<ul> <li>Mow regularly, and leave the clippings on the lawn.</li> <li>Keep mower blades sharp to reduce lawn damage and brown tips.</li> <li>Consider saving water by letting some lawn areas (ones that don't get heavy traffic) go brown and dormant until fall.</li> <li>Improve thin areas of lawns in late August-mid September by aerating, overseeding, and top-dressing with compost.</li> </ul>
Watering	
<ul> <li>Prepare sprinkler systems by testing, adjusting, and repairing leaks.</li> <li>Lay out soaker hoses in beds, and cover with mulch.</li> <li>Check soil moisture at plant roots before watering – don't water until they need it.</li> </ul>	<ul> <li>Start and re-check watering systems, and adjust for weather. (Don't water when it rains.)</li> <li>Water lawns 1 inch per week, or let go brown and dormant (but water enough to moisten root zone once a month).</li> <li>Water at dawn to reduce evaporation and plant disease.</li> </ul>
Composting	
• Harvest compost from your bin. Throw any uncomposted sticks or stalks back in for another cycle.	<ul> <li>Add yard debris to compost pile; water pile to keep it moist. Place pile in shade or cover to hold moisture.</li> </ul>

# **Through the Seasons**



as a wrung-out sponge.

### Want to know more?

Questions? Call the Maine Yardscaping Partnership at 207-287-2731 or e-mail yardscaping@maine.gov

#### Resources

- Maine YardScaping Partnership http://www.yardscaping.org
- Solving Pest Problems http://www.gotpests.org
- Choosing the right plant for the right place http://www.yardscaping.org/plants/index.htm
- Grass seed sources
   http://www.yardscaping.org/lawn/seed.htm
- Invasive plant information
   http://www.invasive.org/index.cfm
- Building healthy soil and erosion control
   www.buildingsoil.org
- Protecting our water quality: Think Blue Maine http://www.thinkbluemaine.org
- University of Maine Master Gardener information http://umaine.edu/gardening/mastergardeners/
- Protecting our marine waters http://www.cascobay.org
- Finding a local sustainable landscape professional <u>http://www.melna.org</u> or http://www.ecolandscaping.org
- Pesticide safety and regulations http://www.thinkfirstspraylast.org
- Disposal of obsolete pesticides
   <u>http://www.maine.gov/agriculture/pesticides/</u>
   public/obsolete.htm or call 207-287-2731

#### **Free Publications**

#### A sampling from the Maine YardScaping Partnership, available by mail or online at http://www.yardscaping.org:

- Is Your Lawn Truly Green?
- Why YardScape?
- Attracting Beneficial Insects
- Using Beneficial Nematodes for Grub Control
- Ecologicial Yard Care Resources
- Rutgers Rain Garden Manual
- Got Pests? bookmarks

#### **Maine YardScaping Partnership**

YardScaping hopes to inspire Maine people to create and maintain healthy landscapes through ecologically based practices that minimize reliance on water, fertilizer, and pesticides.

#### **Guiding Principals**

- Reduce reliance on pesticides, fertilizers and water.
- Reduce runoff with vegetative buffers, rain gardens and green roofs.
- Reduce lawn area.
- Promote site-appropriate non-invasive alien and native plants.
- Right plant, right place, right purpose.
- Promote low-input lawns and grasses.
- Create wildlife habitats.
- Promote commonsense pest management (IPM).

### When it comes to your yard, act naturally!





Maine YardScaping Partnership 28 State House Station Augusta, ME 04333-0028 207-287-2731 http://www.yardscaping.org

Thank you to Washington State's **King County Solid Waste Division** and **City of Seattle Public Utilities** for creating this guide and sharing with the people of Maine.

YardScaping Gardens at Back Cove in Portland