

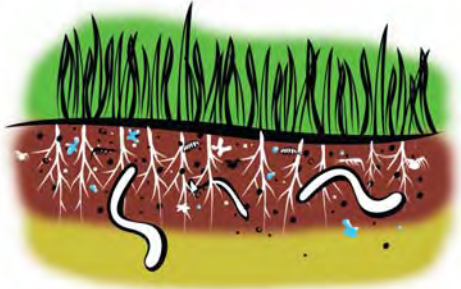
# Is your soil healthy?



## Healthy soil has high organic content

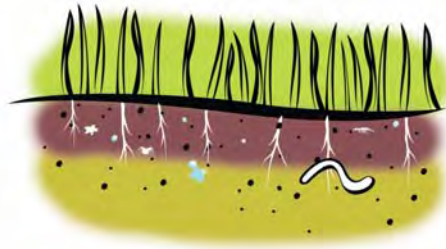
### What is organic content?

Soil with high organic content is full of decomposing plant material and beneficial organisms that together provide nutrients to plants and enhance the soil's ability to absorb and retain water.



#### HIGH ORGANIC SOIL:

- Soaks up excess rainwater.
- Slows runoff and releases water to plants between rainfalls.
- Filters air and water that percolate through.
- Supports healthy plant roots.
- Traps pollutants like oil, metals and pesticides.



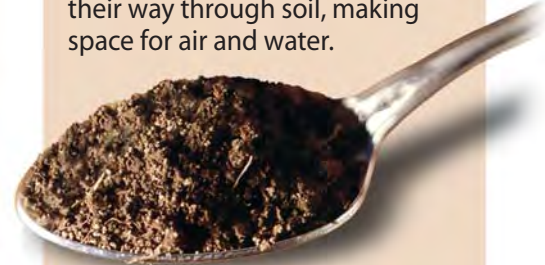
#### LOW ORGANIC SOIL:

- Water runs off causing erosion into streams and rivers.
- If chemicals and pesticides are present, they also feed into streams and rivers.
- Plant roots remain shallow as nothing draws them into deeper, richer soil.
- Plants are more susceptible to stress.

### Did you know?

#### 4 billion organisms live in a teaspoon of healthy soil.

Imagine what's in your yard! These beneficial organisms, such as bacteria and fungi, live around each plant root. They convert decaying materials into energy and essential nutrients for plants. Earthworms and millipedes tunnel their way through soil, making space for air and water.



These organisms do their part by:

- Supplying nutrients and water for plant roots
- Breaking down leaves and dead plant material
- Helping capture and break down some pollutants
- Becoming food for other beneficial organisms

*A healthy, living soil is the foundation for a healthy lawn, garden and environment.*

## How healthy is the top soil in your yard?

### Sample your soil

Dig up a small sample of soil from under your lawn or in your garden, and roll it between your palms.

- If the soil forms a ribbon up to 2 inches long, you have clay soil.
- If the soil falls apart easily and does not make a ribbon, then you have sandy soil.
- If the soil forms a ribbon about 1 inch long, you have loamy soil, which is considered the ideal soil condition.

### Examine plant roots

Take a look at grass roots. Dig down with a shovel or use a soil corer. A healthy lawn will have roots down 4-6 inches.

### Observe plants and trees

If roots are growing along the surface, your soil is probably compacted.

### Observe the water after irrigation or a rainfall

If water puddles on the ground and doesn't soak in, the soil probably lacks organic content. If your soil dries out quickly, it may lack organic content.

MORE INFO  ON BACK



**King County**

Department of  
Natural Resources and Parks  
Solid Waste Division

## Five Steps to: Natural Yard Care





# Is your soil healthy?

## How to restore your soil to good health

### Lawns

- Leave grass clippings on the lawn to add moisture and nutrients.
- Reduce fertilizer and pesticide use to encourage deeper root growth.
- Introduce air into the soil by aerating your lawn once or twice a year.
- Sprinkle your lawn with 1/8-1/4 inch of compost each year, spring and fall.
- Consider replanting your lawn altogether and amending the soil underneath.
- A lawn retrofit can pay for itself in 5-7 years in water savings alone.

### Gardens

- Add compost to your garden, spring and fall.
- Mix compost to a 6-12 inch depth, or sprinkle it on top and let the worms do the work. For best results, rototill the compost directly into the soil.
- Use organic fertilizer, but don't over fertilize.
- Apply mulch over the soil's surface to retain water and prevent weeds.

## Most lawn & garden soil is unhealthy

To begin with, Puget Sound soil is glacial till, gravelly, and not very rich with organic content. When homes are built, generally, two to three feet of topsoil is stripped off during construction. Soil usually is not amended with compost before landscaping or after lawns and gardens are established and new landscaping then becomes dependent on pesticides and fertilizers. Use of lawn and garden chemicals damages soil organisms and prevents deep root growth.

### The consequences are:

- More time and money are spent on chemicals, water and fertilizers.
- Plants and grass fail to thrive.
- Water tends to run off rather than soak in.
- Water quality and salmon habitat are negatively impacted.

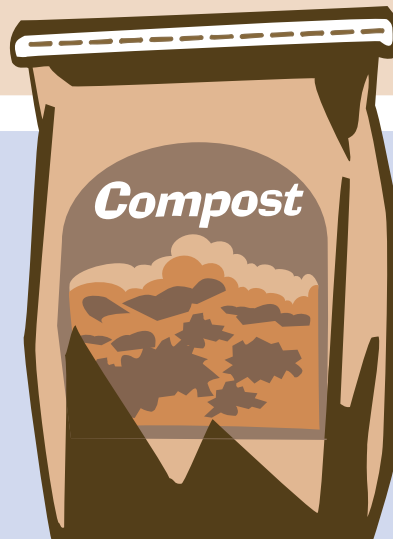
*Adding compost to the soil will improve your lawn and garden.*

## Guide to compost quantities

Measure your lawn or planting area and consult with your nursery professional to determine the quantity. Sandy soil may require more compost than clay soil.

### One cubic yard of compost covers:

100 square feet	3 inches deep
200 square feet	2 inches deep
300 square feet	1 inch deep.



*A nation that destroys its soils destroys itself.*

*-Franklin D. Roosevelt*

For additional information on soil building and composting, visit the King County soils web site at [www.kingcounty.gov/soils](http://www.kingcounty.gov/soils) or call the Garden hotline at 206-633-0224, or email [help@gardenhotline.org](mailto:help@gardenhotline.org)

Alternative Formats On Request  
206-296-4466 • TTY Relay: 711  
1-800-325-6165 ext. 6-4466