



Michigan's
Nonpoint Source
Program

Clean Michigan Initiative
Clean Water Fund Grant
2007-0139



SE Oakland Co. Water Authority

248-288-5150

248-435-0310:

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Healthy Lawns and Landscapes in the Red Run Subwatershed

January 2, 2008 - June 30, 2011

Project background: The Southeastern Oakland Water ASOCWA conducted a four-year campaign to inform and motivate residents and municipalities to follow recommended healthy lawn and landscape practices. Over 100 citizens were trained through the Master and Treekeeper programs and over 30 public education events and demonstrations carried out each year in various communities, Red Run Subwatershed. Training for municipal staff was offered and public information fact sheets prepared and distributed through municipal newsletters and websites.

A survey of lawn mowing practices was conducted in selected neighborhoods in July 2009 and July 2010. In addition, more than 15 retailers in the Red Run Subwatershed participate in the Earth-Friendly Lawn Fertilizer sticker program. It is believed that an estimated 50% of all residents are familiar with one or more of the recommended lawn practices. Interest in home composting and proper tree mulching appears to be increasing, in part due to the area-wide and municipal outreach efforts.

Through partnership efforts with the Michigan Green Industry Association, the list of endorsed lawn companies has now grown to including 17 firms (offering the healthy lawn care option).

Red Run Subwatershed, Clinton River Watershed

Best Management

Practices:

- Healthy lawn care
- Don't guess...soil test!
- Mow grass tall; mulch clippings
- Use earth-friendly lawn fertilizers
- Make compost at home
- Use compost and natural mulches
- Select diverse species of trees; native tree species when possible
- Mulch trees properly
- Recycle rainwater: rain gardens; rain barrels

Grant Amount: \$84,956

Match Funds: \$106,009

Total Amount: \$190,965



I&E Activities:

- Annual Master Composter training classes with notebook
- Treekeeper training with manual
- 30+ education outreach events and demonstrations each year
- Earth-friendly landscape signs for homes
- How-to-do-it short videos - on www.SOCWA.org website
- Treekeeper signs for mulch-outs

Partners involved:

- Michigan Green Industry Association
- Clinton River Watershed Council
- Municipalities in the Red Run Subwatershed, Clinton River Watershed



TREES FOR TOMORROW

Caring For Our Community Roots

Tree Mulching Guidelines for Southeast Michigan

Benefits of Trees

STORMWATER QUALITY

- Trees intercept and absorb stormwater runoff. One tree can reduce runoff by over 3000 or more gallons a year.

AIR QUALITY, CLIMATE, & ENERGY CONSERVATION

- A single tree releases enough oxygen for a family of four over a one-year period. Trees also store carbon, offsetting harmful fossil fuel byproducts. Shade trees may save up to 20% on summer air-conditioning costs and 2% on winter heating costs.

PROPERTY VALUES

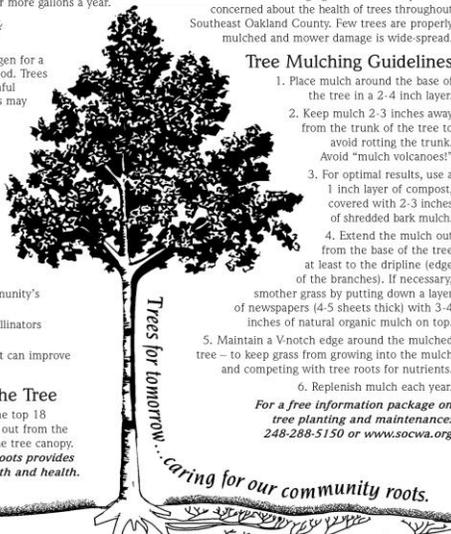
- Property values of landscaped homes are higher than those without maintained landscapes. Individual trees may add significant value.

HABITAT & COMMUNITY IDENTITY

- Native trees help define the community's unique character and identity.
- Trees provide habitat for birds, pollinators and beneficial insects.
- Trees have a restorative effect that can improve physical and mental well-being.

Roots...The Lifeline of the Tree

Over 85% of all tree roots grow in the top 18 inches of the soil. Tree roots extend out from the tree trunk, beyond the dripline of the tree canopy. A 2-4 inch layer of mulch over roots provides substantial benefits for tree growth and health.



Why Mulch Trees?

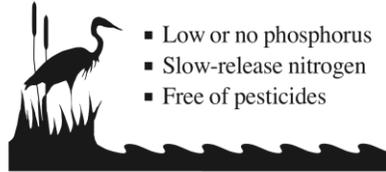
Proper tree mulching maintains moisture, improves soils, minimizes weeds, and protects roots... and helps keep lawn mowers from damaging tree trunks. Experts are concerned about the health of trees throughout Southeast Oakland County. Few trees are properly mulched and mower damage is wide-spread.

Tree Mulching Guidelines

1. Place mulch around the base of the tree in a 2-4 inch layer.
2. Keep mulch 2-3 inches away from the trunk of the tree to avoid rotting the trunk. Avoid "mulch volcanoes!"
3. For optimal results, use a 1 inch layer of compost, covered with 2-3 inches of shredded bark mulch.
4. Extend the mulch out from the base of the tree at least to the dripline (edge of the branches). If necessary, smother grass by putting down a layer of newspapers (4-5 sheets thick) with 3-4 inches of natural organic mulch on top.
5. Maintain a V-notch edge around the mulched tree - to keep grass from growing into the mulch and competing with tree roots for nutrients.
6. Replenish mulch each year.

For a free information package on tree planting and maintenance: 248-288-5150 or www.socwa.org

Earth-Friendly Fertilizer



- Low or no phosphorus
- Slow-release nitrogen
- Free of pesticides

Project sponsored by SOCWA • 248-288-5150

www.socwa.org

Funded through the Michigan Department of Natural Resources & Environment DEQ



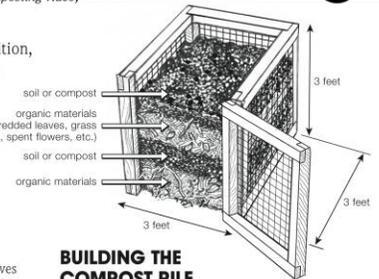
Southeastern Oakland County Water Authority
3910 W. Webster Road, Royal Oak, MI 48073-2761, 248-288-5150

HOME COMPOSTING

TURN YARD WASTE INTO GARDENER'S GOLD

For a 5-minute home composting video, see www.socwa.org

Through the natural process of decomposition, leaves, grass, and other yard clippings can be transformed into a soil-enriching substance called compost. Decomposer organisms, including bacteria, fungi, sowbugs, earthworms, beetles, and ants (among others) work together to transform yard waste into yard riches.



MATERIALS FOR COMPOSTING

For an ideal composting mix, combine shredded leaves (50% of total volume) and grass clippings (25% of total volume) with garden soil or compost (25% of total volume). If you don't have grass clippings available, you can make excellent compost by using additional shredded leaves or other garden clippings.

YES	NO
Leaves - shredded, if possible	Dairy products
Grass clippings	Oils and fats
Spent flowers & garden clippings	Meat, fish, bones
Young weeds (without seeds)	Pet manure; cat litter
Fruit & vegetable peelings (cut small)	Cooked food
Clean egg shells	with seasonings
Coffee grounds, filters, & tea bags	Diseased plants
Old fertilizer	Black walnut leaves
Shredded bark mulch; old straw	Bread
Potting soil	Weeds with seeds
	Invasive weeds

To avoid nuisances, select the materials for your compost pile with care. For specific composting regulations, check with your local Department of Public Works. Fruit and vegetable peelings should always be cut into small pieces and buried deep in the compost pile.

BUILDING THE COMPOST PILE

1. Start with a layer of organic materials such as shredded leaves, grass, or other garden clippings - to provide microorganisms.
2. Water the layer until it is as moist as a wrung-out sponge.
3. Add a 2 to 3 inch layer of garden soil or compost - to provide microorganisms. Mix.
4. Continue layering, watering and mixing.

Build the pile to a size of 3 feet x 3 feet x 3 feet, or slightly larger, to fill the compost bin. Plastic compost bins with lids are highly recommended, since they retain moisture and keep out animals.

TURNING THE PILE

Turning and mixing the compost pile with a garden fork or compost turner adds oxygen and accelerates the process of decomposition. The pile may be turned once a week, once a month, several times a year, or not at all. However, if the pile is turned over and mixed from time-to-time and kept moist, finished compost is usually available within six months.

Don't worry about the temperature of the pile - either a hot or cold process yields beneficial compost.

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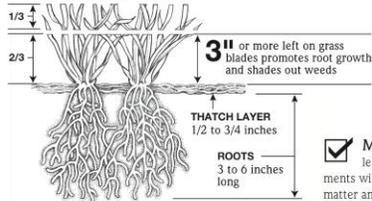




Healthy Lawn CARE TIPS 2010

SOCWA, Southeastern Oakland County Water Authority 3910 W. Webster Road, Royal Oak, MI 48073-2761, 248-288-5150

Cut It High...Let It Lie!



For further information...

www.socwa.org
www.turf.msu.edu/lawn

For Tips on Fertilizer
and Weed Control,
See Side 2.

Healthy Lawn Checklist

Mulch Your Grass Clippings. Let short clips fall back on the lawn. Clippings are a source of nitrogen, so fertilizer can be reduced by 25% or more. Clippings do not cause thatch!



Cut High. Leave 3 inches on the grass blade after cutting. Tall grass promotes root growth and shades out weeds.

Build Soil Organic Matter. Healthy soil has 5% or more organic matter. The organic matter provides a natural reservoir of nutrients and holds water. To assess your soil, test for basic nutrients and organic matter every one to three years.

Aerate Compacted Soil. Use a core aerator that removes finger-like plugs of grass and soil – or hire a professional service. Core aeration improves drainage and allows water and oxygen to reach the grass roots.

Mow Dry Leaves. In the Fall, mow dry leaves into the lawn. A shallow layer of leaf fragments will decompose quickly and contribute organic matter and nutrients to the system.

Rake Compost Into the Lawn. Rake 1/2 inch of compost into an established lawn. Leave half of the grass blade exposed to sunlight and air. Compost adds microorganisms, nutrients and organic matter, helping to build soil fertility.

Water the Lawn to Minimize Stress. A green lawn in Michigan needs .5 to 1.5 inches of water per week. Don't soak your lawn; watering should not produce puddles. Light, frequent watering which reaches the grass roots is recommended by Michigan State University. Lawn dormancy is a natural response to drought. However, some water may be necessary during an extended drought of more than a month.

