

CROSSECTION



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Special points of interest:

- 2004 Tree Seedling Packet info
- Backyard Wetlands
- 2004 Poster Contest
- Nominate a Teacher of the Year
- Ideas for Planting Trees

2004 Tree Seedling Sale Information is on pages 3 and 4 of this issue!



BACKYARD CONSERVATION

It is estimated that over 92 million acres of land in the United States are privately managed. These are areas owned by individuals, and not farmed or grazed. This is your backyard. While some of the conservation efforts on farms aren't appropriate in neighborhoods, many of the techniques that farmers use over 60 acres make just as much sense on 3/4 of an acre. Reducing erosion, runoff, fertilizers and pesticides leads to healthier urban streams and rivers.

Soil erosion can happen from an established yard, given the right circumstances. Look for bare ground around the edges of your driveway, sidewalk, and at places where members of your household commonly walk. These areas are usually compacted by ongoing use, and the plants cannot survive the repeated stress. If reducing traffic in the area is not possible, mulch or gravel can soften the impact of raindrops, and keep feet and tires from loosening soil particles. Another source of bare soil to watch for is around

plantings and in flower beds. It is important to mulch these areas, not only to protect the soil from erosion, but also to cool the soil temperature, conserve moisture, and provide organic content for the plants. Mulch materials can be dry grass clippings, dead leaves, compost, straw, or wood chips, and can often be found, instead of purchased. Any area that is not covered by vegetation should be protected from erosion.

Nutrients are vital for healthy plants. However, excessive nutrients can also harm rivers and ponds, and the wildlife that depends on them. In agricultural areas, this is often caused by animal waste entering a stream, or by fertilizer running off a crop field. The same sources, animal waste and chemical fertilizer, exist in the urban environment. A little common sense can eliminate this problem. Pet waste should not be left on the lawn to wash away. Instead it should be collected and composted or disposed

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CREATING AN INVITING YARD

A LOOK AT SMALL-SCALE WILDLIFE HABITAT.

Taking care of our natural resources, which face increasing pressures and demands from a growing population, is a task that requires everyone to lend a hand at whatever level they can.

One of the best places to begin is right where you live. Whether it's a narrow urban lot or a 40-acre woodland, your backyard is an important part of a larger natural community or ecosystem. The large expanse of neatly trimmed turf that's pleasing to some is a very inhospitable environment for most wild animals, and

the practices necessary to maintain such a landscape often contribute to water quality problems. By making different landscaping choices, property owners can do their part to assure healthier habitat and cleaner lakes and rivers.

Creating habitat areas in your backyard is simple. There are only three components that must be addressed to turn a lawn into an oasis for wildlife. If an animal can find food, water, and shelter, it can take up residence in your backyard.

(Continued on page 2)



WET SPOT TO WETLAND; DEVELOPING A BACKYARD HABITAT



Say goodbye to bogged-down lawn mowers, and develop the wet area of the yard into a patch of texture and color. Any wet spot can be turned into a wetland garden, often with little effort. Even if there isn't an existing wet area, simply diverting the downspouts into a swale can create a habitat island and treat stormwater at the same time.

There are a few things to keep in mind when locating a wetland. If the area is an existing wetland, be sure to check state and local regulations before altering it. Lake SWCD can help to determine if there is an existing wetland. Secondly, remember that one person's actions can affect other people and properties around; a new wetland project should not flood the neighbor's yard, or create an attractive nuisance for neighborhood children.

In many parts of Lake County, the soil is heavy and clayey. While not ideal for a lawn, this is the best situation for creating a wetland area. The length of time that the soil stays waterlogged will be key in determining which wetland species will thrive and which will wither away. First, take advantage of existing wet spots by simply altering the planting and maintenance regime. This is probably the easiest way to create a wetland. Replace lawn grasses with cattails and reeds, or other wetland species. Even if the soil happens to be sandy and well-drained, a wetland can be created in the same fashion as a pond would be. Simply dig a depression and line it with a heavy plastic liner filled with soil and peat, and divert surface or roof runoff into the structure.

Research has shown that wetlands can greatly benefit water quality. Because of their position between dry land and water, wetlands can remove, break down or transform many of the pollutants in water that harm aquatic life in streams, rivers and lakes. Even when a wetland does not eliminate a pollutant from the water, it can prevent it from

entering a stream in one big pulse, which could overwhelm the stream's delicate web of life. Wetlands slow down water, allowing groundwater to infiltrate, and sediment to settle out. They also decrease the likelihood of flooding by releasing water into rivers and streams more slowly. The plants will take up excess nutrients, such as nitrogen and phosphorous. These nutrients can cause eutrophication, low oxygen levels, and fish kills if they enter the water in great quantities. Finally, the soil itself can bind pollutants, including heavy metals and some pesticides.

Wetlands are important wildlife habitat, and Ohio has lost about 90% of the wetlands that once existed here. Some of these were large, forested areas, but many others were small pockets or vernal pools that only were wet a few weeks each year. These vernal pools are important amphibian habitat. Frog, toad and salamander species take advantage of temporary pools during mating season, and the tadpoles are protected from the predation by fish that would happen in a permanent body of water. Aquatic insects are also quick to find islands of wetland habitat. Dragonflies and crane flies will take advantage of even the smallest wetlands, and provide food for the amphibians while eating smaller insects or algae. The insects will also bring different birds to the area. Red-winged blackbirds, bluebirds, and orioles might be attracted by a backyard wetland. One third of all endangered species depend on wetlands for at least one part of their life cycle.

Many farmers have stopped using the wettest areas of their fields, allowing a wetland ecosystem to re-establish. You could do the same in your backyard. For more information on creating and enhancing wetland areas, contact the Lake Soil and Water Conservation District.

BACKYARD WETLANDS AND WEST NILE VIRUS

Perhaps the greatest fear about constructed wetlands is that they will become infested with swarms of mosquitoes. In reality, mosquito problems have seldom been encountered with storm-water wetlands. Wetlands that are designed as part of the drainage system avoid stagnant water areas and have adequate hydrologic flushing are one successful design strategy. Mosquito predators include frogs, toads, salamanders, dragonflies, purple martins, and bats, are all native to the wetland ecosystem. Bats are the single most effective mosquito predator, consuming up to one half their body weight in a 24-hour period.

CREATING *Continued from Page 1*

An assessment of the current conditions is a good place to start.

- Is there a water source nearby? How could one be added?
- What are the major structures? Are there trees and shrubs in place? What is their arrangement?
- What food sources are already available, both planted and provided at feeders?
- Are there any animals using the area presently? What are they eating? Where do they go for water and shelter? What areas of the yard do they use? Are they animals that you want to encourage or discourage?

Once the current situation is evaluated, it can be adjusted to decrease habitat for undesirable wildlife and increase habitat for desired species. Plantings that provide food and shelter can be used in landscaped areas. Shelters can be built for birds, bats, toads, or butterflies. With a little research and some planning this winter, your backyard could be a haven for wildlife next summer. For more information, go online to: <http://www.nwf.org/backyardwildlifehabitat/>



BACKYARD CONSERVATION *(Continued from Page 1)*

of. Chemical fertilizers should only be applied after a soil test. The results of the test will let you know how much of which nutrients your soil needs. Extra fertilizer will only cost more money, and end up leaching into groundwater or running off into surface water. Be aware of timing as well; try to avoid applying fertilizer if rain is predicted, to reduce chances of runoff. Some alternatives to applying chemical fertilizer are leaving lawn clippings on the lawn, and planting native vegetation that thrives in local soils.

Pesticides include herbicides, insecticides and fungicides. These are chemicals that are strong enough to kill organisms, and do so wherever they end up in the ecosystem, in your lawn or in a stream. For this reason, it is best to avoid pesticide application wherever possible. Integrated pest management (IPM) is a practice that aims to prevent or reduce pest problems, using pesticides only if other solutions fail. Some IPM techniques include using beneficial insects, attracting bats and birds, rotating plantings, and planting a combination of plants instead of a single species.

Gardening is a relaxing hobby, and is practiced by about 70% of landowners. With a few modifications, a yard and garden can provide the same rewards to the gardener, while also protecting water quality and preventing environmental degradation. Many of the techniques mentioned in this article

TEACHER OF THE YEAR

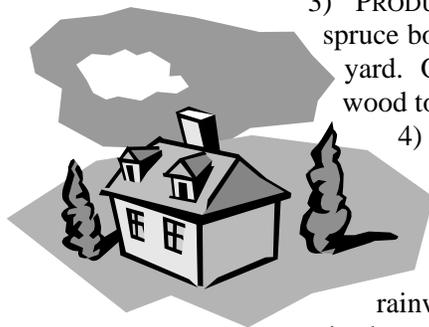
Lake SWCD is seeking nominations of Lake County teachers. We would like to recognize outstanding efforts in conservation education. If you are or know of a teacher who deserves this recognition, please send your nomination to Beth Landers at the District office.

POSTER CONTEST

The theme of the 2004 Poster Contest is "The Living Soil." Students from K-12 are encouraged to represent their knowledge of how conservation improves the environment as it relates to the theme. Visit the 'Teachers and Students' section of our website, or contact Beth Landers for details and official entry forms.

TEN REASONS TO PLANT TREES IN YOUR YARD

- 1) **WINDBREAK** - Instead of putting up snow fence every fall and taking it down again in the spring, install a natural snow fence of shrubs and shorter trees. Be sure to place it properly so you don't steer drifts to areas you wanted to keep open.
- 2) **WILDLIFE** - Consider the needs of animals, especially in the coldest parts of winter. Trees and shrubs that produce berries, fruits, nectar, or nuts will attract birds, squirrels, and many other animals to your yard.
- 3) **PRODUCTS** - What can you get from your tree? Cut branches for flower arrangements, pine or spruce boughs for the holiday season, nuts, fruits, and sap can all be harvested from trees in your yard. Once a tree reaches the end of its lifespan, the wood can be used for anything from firewood to furniture.
- 4) **EROSION CONTROL** - This is especially important on steep areas. Tree roots are deeper and more substantial than typical lawn grasses and are better at holding soil in place. Planting trees and shrubs along the edge of a ravine also means that the area does not have to be mown right up to the edge.
- 5) **STORMWATER REDUCTION** - The leaves and needles of the trees will slow down rainwater. Some of the intercepted rain never reaches the ground, decreasing total flow. The rest is slowed down, making it more likely to soak into the ground, and less likely to wash soil into the stormwater system. Even if some of the rain does make it into the storm drain, it has taken much longer to do so.
- 6) **HEATING AND COOLING BILLS** - Northwesterly winds cause the most heat loss in winter. Blocking, or slowing down the wind can reduce heat loss. In the summer, deciduous trees can shade houses, decreasing the need for air conditioning. West and east-facing windows are the most important to shade in the summer. It is best to plant deciduous trees near south-facing windows to let in solar heat in winter.
- 7) **OUTDOOR AIR CONDITIONING** - In addition to providing shade, trees actually move groundwater into the air through transpiration. This water can be considerably cooler (54°) than the air temperature and decrease local temperature by a few degrees.
- 8) **AIR QUALITY** - Trees remove nitrogen dioxide (NO₂), sulfur dioxide (SO₂), carbon monoxide (CO), ozone and particulate matter from the air. These compounds are linked to poor air quality, acid rain, and respiratory problems in some people.
- 9) **SOUND REDUCTION** - Similar to a windbreak, trees can also be used to deflect sound waves from nearby traffic. Be sure to pick a tree that keeps its leaves or needles all winter; evergreens in multiple rows are the best at blocking noises.
- 10) **AESTHETICS**—Trees are good for you! Studies have shown that hospital patients with a view of trees recover more quickly. Trees can also improve a person's mood and help them to relax.



In a study done in Canton-Akron, it was calculated that the existing trees kept 540 million cubic feet of water out of the stormwater system during periods of peak flow. If stormwater facilities had to be built to handle this flow, it would cost the region 1.1 billion dollars, according to the American Forests organization.

Answers: 1)A, 2)B, 3)B, 4)B, 5)D, 6)D, 7)C, 8)C, 9)B

WHO WANTS TO BE A CONSERVATIONIST?

See how much you know about trees, plants and gardening with conservation in mind. Answers are on page 5

- 1) How many trees does it take to remove 26 pounds of carbon dioxide from the air in a year?
A) 1 B) 5 C) 26 D) over 100
- 2) What color are mosquitoes attracted to the most?
A) Orange B) Blue C) Brown D) White
- 3) The average person uses the equivalent of ____ trees, measuring 100' tall and 18" in diameter, each year.
A) 3/4 B) 1 C) 3.5 D) 17 E) 55
- 4) How many Ohio Big Trees are in Lake County?
A) 0 B) 1 C) 5 D) 12 E) 16
- 5) How many Ohio trees are on the National Register of Big Trees?
A) 0 B) 1 C) 7 D) 14 E) 19
- 6) What percent of U.S. homeowners are actively involved in gardening?
A) 25 B) 40 C) 55 D) 70
- 7) Old Christmas trees can be used for all of the following except:
A) Providing cover for fish in ponds
B) Temporary bird feeding stations
C) Fill for a ravine or gully
D) Mulching and compost
E) Soil stabilization when anchored along a riverbank
- 8) A garden hose can use almost ____ gallons each minute
A) 2 B) 4 C) 5 D) 8 E) 15
- 9) Lawns and garden plants stay healthy and use water most efficiently when watered:
A) A little bit every morning
B) Heavily once a week
C) With warmer water
D) Only after they start to wilt

LAKE COUNTY SOIL & WATER CONSERVATION DISTRICT

125 E. Erie St., Painesville, OH 44077

- 440-350-2730 (main number) •FAX 440-350-2601
- Toll-free •298-3334 ext. 2730 Madison/Perry
- 918-2730 Cleveland/Western Lake County
- 1-800-899-LAKE outside Lake County only
- Office Hours: Mon.-Fri. 7:30 am-4:00 pm*
- E-mail: soil@lakecountyohio.org
- Web site: www.lakecountyohio.org/soil

PAM BROWN, District Secretary/Treasurer	350-2730
DAN DONALDSON, District Administrator	350-2030
CHAD EDGAR, Urban Stream Specialist	350-2032
BETH LANDERS, Education/Information Coordinator	350-2033
BRETT RODSTROM, Storm Water Specialist	350-2092
MATTHEW SCHARVER, Resource Protection Technician	350-2031
AL BONNIS, District Conservationist, NRCS	350-2730
JOHN NIEDZIALEK, Western Reserve RC&D Coordinator	350-2034

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 - Lake County Farm Bureau
 - Nursery Growers of Lake County, Inc.
 - National Association of Conservation Districts
 - Ohio Federation of Soil & Water Conservation Districts
-

AN EQUAL OPPORTUNITY EMPLOYER

All Lake SWCD and USDA programs and services are available without regard to race, age, gender, national origin, political beliefs, color, religion, disability, sexual orientation, or marital or family status.

The public is invited to attend Lake SWCD's monthly Board meetings, held the fourth Wednesday of each month at 7:00 pm at 125 East Erie St., Painesville. Meeting announcements appear under the public agenda in the News-Herald. Please call in advance to let us know you will be attending.

Lake County Soil & Water
Conservation District
125 East Erie St., Painesville, OH 44077

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