

CROSSECTION



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• Special points of interest:

- Read about the history of Ohio's forests.
- Learn how to care for your new tree seedlings.
- Involve your children in our Conservation Poster Contest!
- Learn some of the benefits of growing trees.

2003 Seedling Sale Information is on pages 4 and 5 of this issue!

Don't delay—trees sell out quickly!



FORESTS IN OHIO

Stories abound about Ohio's pre-settlement forests. It's believed that prior to European settlement, there were more than 25 million acres of forests covering 95 percent of the state, and "...a squirrel could travel from one corner of the state to the other without touching the ground." Though that may be exaggerated, Ohio was once dominated by truly magnificent hardwood forests. Huge trees of maple, beech, oak, tulip tree, and sycamore, among many others, thrived.

Vegetation of many types abounded. Elm-ash forests were found in the northwest Ohio swamps; mixed oak was predominant in the southeast hill country; beech forests covered the great expanses of what is now Ohio's agricultural land.

But the abundant forests got in the way of a growing nation. They were removed with a passion beginning in the late 1700s and continuing for the next 150 years. Ohio's fertile ground made it ideal for farming and much of the land was cleared. By 1900, forests covered less than 15 percent of the state, and by 1940, only 12 percent of Ohio (3.2 million acres) remained forested.

In the decades prior to 1940, social changes and the resiliency of the forest took over. Farms were abandoned at a record pace following the Great Depression and much of the land was reclaimed by forest. Hundreds of thousands of acres that were once pasture land were either planted or, more likely, reverted to forests naturally. The expansion continues today. Ohio now has 7.9 million acres of forests covering 30 percent of the state. Ohio forests have increased 144 percent, during just the last half century.

Even more remarkable is the increase in wood volume. In 1952, there was an estimated 11.2 billion board feet of wood in all saw timber trees. By 1991, the inventory had increased to 30.3 billion board feet. A 1991 survey showed that more than 1 billion board feet of wood is being grown each year, more than twice the volume that is removed. Today, Ohio's forest products industry is valued in excess of \$7 billion and employs 70,000 Ohioans generating approximately \$1 billion in payroll.

Currently, there are more than 300 woody species found in Ohio forests, including more than 100 hardwood and 25 softwood trees species. It is estimated there are more than 65 billion trees and shrubs on the 7.9 million acres of forests, for an average of more than 8,000 woody stems per acre. More than 1 billion of these trees have a dbh (diameter breast height) of greater than 5 inches.

Any measure of Ohio's forests should include the benefits they provide to our environment. They benefit water quality by decreasing runoff which help control erosion and flooding. They benefit air quality by reducing wind and dust, and by releasing oxygen and sequestering carbon through photosynthesis. Providing wildlife habitat is an additional benefit.

As Ohio's forests grow, their ability to perform their functions will also grow. What is the future of Ohio's forests in the next century? It depends largely on how we view and value them. A sustainable vision must include the wise use of resources balanced against the environmental benefits provided by forests. As Ohio citizens, we all impact our forests and have a stake in their health. How we manage forests for the uses demanded of them will ultimately determine their fate. ♦

Information from "Forests of Ohio," ODNR, Division of Forestry booklet

FEATURE ARTICLE: SUCCESS WITH SEEDLINGS IN THE LANDSCAPE

by *Randall H. Zondag, Commercial Horticulture Agent, Lake County OSU Extension*

Buying seedlings is a long term commitment to care in helping a small juvenile plant grow into a mature tree or landscape plant. Many of the plants purchased die in the first several years from either lack of care or improper placement. Some of the plants grow too large for the sites and are cut down or lost through transplant problems. Here are a few hints that you might use to achieve a successful experience in getting plants to grow to maturity.

1. Select plants that will grow in the space available.

Most of the plants on the Lake SWCD Seedling Sale list will grow to a height of near 100 feet at maturity with a spread of up to 50 feet. These plants will not grow well next to a house or near power lines or over septic fields. Be sure that these plants are growing in a place where they don't have to compete with other plants for light, water and nutrients. Plants like pines, firs, maples, oaks, walnuts, sycamore, tulip poplars, hickory and others listed are large trees and need to be planted accordingly.

2. Be sure the plant has the right environment. Many evergreen and shade trees like full sun and soils with good drainage and ample moisture. Some plants like willow, shrub dogwood and river birch can tolerate wet sites. No matter what plant you choose be sure that you know what type of location they will grow in best. OSU Extension bulletins and OSU Master Gardeners can help you obtain

information on the best sites for plants .

3. Plant it right; you only have one chance. There are several fact sheets from OSU on planting plants properly. Many people plant seedlings too deep and then mulch even deeper. This will kill these plants over time. There is a proper depth which is easy to find if you know what you are looking for. Remember, roots in the hole and branches up.

4. Protect the plant once it is in the ground. Many seedlings die from being mowed off or too little/too much water. Plants need to be placed in a location where grasses and weeds don't over grow them. Mulches can help but weeding will need to be done periodically over the life of the plant. Trees compete with turf for water and nutrients and over time one or the other usually survive. If you are planting windbreaks, be sure that plants have enough space (15-20 feet apart) to grow.

For any questions on plant selection, spacing or proper planting and post-planting care contact your local Ohio State University Extension office. Bulletins, fact sheets and phone information is available on request through our Master Gardener program. We are located at 99 East Erie Street in Painesville and our phone number is 350-2583, or call the county phone system for connection. ♦

OHIO FORESTRY FACTS...

- 30 percent of Ohio is forested.
- 7.6 million acres in Ohio are in tree cover.
- 97 percent of Ohio's forests are hardwood trees (deciduous).
- There are over 100 different hardwood tree species growing in Ohio.
- There are over 25 different softwood tree species growing in Ohio.
- There are 43 different forest types in Ohio (such as oak-hickory, beech-maple, oak-gum).
- Ohio has 20 state forests, exceeding 183,000 acres spanning 21 counties.
- 94 percent of Ohio's forests are owned by private woodland owners.
- There are 332,600 private woodland owners in Ohio.
- 1,850 woodland owners are Tree Farmers.
- Tree farmers manage 383,647 acres of Ohio woodlands.
- Ohio ranks fourth nationally in maple syrup production, averaging 100,000 gallons annually.
- Ohio maple syrup producers gather about 4,200,000 gallons of sap each year.
- Ohioans produce about 750,000 Christmas trees each year.
- The value of Ohio's wood products industry is in excess of \$7 billion annually.
- Ohio grows one billion board feet of wood fiber each year. This is two and one half to three times as much timber as Ohio harvests annually.
- Ohio reports approximately \$100-\$150 million in revenue annually for forest-related products. ♦

Information from ODNR, Division of Forestry web site at <http://www.dnr.state.oh.us/forestry/default.htm>



"A people without children would face a hopeless future; A country without trees is almost as hopeless."

Teddy Roosevelt, Arbor Day 1907

SOMETHING TO THINK ABOUT...

To grow 1 lb of wood the tree uses 1.47 lbs of carbon dioxide and gives off 1.07 lbs of oxygen. But for every pound of wood that decays or burns the process reverses and 1.07 lbs of oxygen is consumed and 1.47 lbs of carbon dioxide is released.



EDUCATION UPDATE...

GET YOUR CHILDREN INVOLVED IN CONSERVATION!!

Once again, Lake County SWCD is sponsoring a Conservation Poster Contest. The contest is held in conjunction with the National Association of Conservation Districts and the Ohio Federation of Soil & Water Conservation Districts. "Food for the Future" is the theme for Soil and Water Stewardship. The purpose of the contest is to instill in our youth an appreciation for the environment and the need to protect our precious soil and water resources.

Lake County schools and individual participants may submit posters to the Lake SWCD office on or before **April 7, 2003, or call Lake SWCD by March 17 to arrange for the District to collect them by the deadline.** Judges will consider neatness, choice of color, and adherence to the rules. Prizes will be awarded for local 1st and 2nd place winners! All posters become the property of Lake SWCD, unless otherwise requested. Please call Lake SWCD or visit our website at www.lakecountyohio.org/soil/conservation_education_contests_.htm for contest rules before getting started!♦



NOMINATE A TEACHER FOR CONSERVATION TEACHER OF THE YEAR!



The Lake County Soil and Water Conservation District (SWCD) is currently sponsoring the 2003 Ohio Teacher of the Year Program as part of the Ohio Federation of Soil and Water Conservation Districts (OFSWCD) Conservation Awards. The purpose of this program is to recognize the outstanding conservation education efforts of Lake

County teachers.

Nominations may be made to Lake SWCD by anyone living within the county for any teacher teaching within Lake County. Teachers are encouraged to submit their own nominations for consideration. Nominations must be made to the Lake SWCD by **March 24, 2003**. The District will then contact the teacher who would formally apply according to the Ohio Teacher of the Year Guidelines; *Entry Forms* are due to Lake SWCD by **April 28, 2003**.

Recipients in both elementary (grades K-6) and secondary (grades 7-12) categories will be honored at the local and state levels. *Local winners* will be presented with a cash award and plaque at Lake SWCD's Annual Meeting in October 2003. *State winners* will receive a \$300 cash award AND **free registration** to the 2003 Ohio Federation of Conservation Districts August Education Workshop, to be held at Deer Creek State Park in August 2003. The *national first place educator* in each category receives a plaque, \$1,000 cash award, and travel expenses to the National Association of Conservation Districts' (NACD) 2004 Annual Meeting in Hawaii.

Interested parties can obtain additional information, nomination forms, and entry forms from Lake SWCD, or call Amy Knisely, Education/Information Coordinator at Lake SWCD at 440-350-2730, or log onto our web site at www.lakecountyohio.org/soil/conservation_education_contests_.htm.

This award program is sponsored by the Ohio Federation of Soil & Water Conservation Districts (OFSWCD), the National Association of Conservation Districts (NACD), and Syngenta. ♦

WHO WANTS TO BE A CONSERVATIONIST?

Test your own knowledge of environmental issues by playing "Who Wants to be a Conservationist?" Quiz classmates, colleagues, fellow employees, and your family! Look for the correct answers inside this newsletter! Look on our website for brief explanations!

- What is the State Tree of Ohio?
 - Red Oak
 - American Chestnut
 - Buckeye
 - White Oak
- As of 2001, how many Ohio cities were certified Tree City USAs?
 - 150
 - 530
 - 55
 - 220
- The oldest living tree in the world is the:
 - redwood
 - bristlecone pine
 - giant sequoia
 - sycamore
- This new wood is the tree's pipeline for water moving up to the leaves.
 - phloem
 - cambium
 - sapwood
 - heartwood
- Where are next spring's leaves hidden and protected during the cold winter?
 - In the buds
 - They aren't hidden
 - In squirrel's nests
 - Under the bark
- What is the tallest type of tree in the world?
 - The chestnut
 - The redwood
 - The hickory
 - The sitka spruce
- Maple syrup can be made from this type of tree.
 - Sugar maple
 - Norway maple
 - Red maple
 - All of the above
- What kind of weather can you expect when tree leaves turn upside down in a fresh breeze?
 - sleet
 - sunny
 - snow
 - rain
- This part of a tree is the pipeline through which food is passed to the rest of the tree.
 - xylem
 - phloem
 - vessel
 - heartwood
- What can you count to determine the age of a tree?
 - leaves
 - branches
 - rings
 - seeds

A 100 foot deciduous tree: can take in 11,000 gallons of water from the soil (over one growing season) and release it into the air – the cooling effect is thought to be equivalent to air conditioning 12 rooms for that growing season!

LAKE SOIL & WATER CONSERVATION DISTRICT 2003 ANNUAL SEEDLING SALE

# Ordered	Description	Price	Total
_____	*White Pine (10).....	\$8	_____
_____	*White Fir (10).....	\$8	_____
_____	*Canadian Hemlock (5).....	\$8	_____
_____	*Flowering Dogwood (5).....	\$9	_____
_____	Stream/Pond Packet.....	\$12	_____
_____	Wildlife/Homeowners Packet.....	\$12	_____
_____	Forest Nut Packet	\$15	_____
_____	Forest Hardwood Packet	\$15	_____
_____	Pachysandra (50).....	\$12	_____
_____	American Wildflower Mix (1 Packet).....	\$4	_____
_____	Bluebird house.....	\$8	_____
_____	Wren House.....	\$8	_____
_____	Wood duck house.....	\$20	_____
_____	Bat house	\$10	_____
_____	Tree flags (Bundle of 20).....	\$1	_____
	Grand Total \$		_____

Orders are filled on a first-come, first-serve basis. Order early for the best selection! Order deadline is March 7, 2003.

Name: _____

Street Address: _____

City, State, Zip: _____

Phone (day) _____ (evening) _____

ORDERING INSTRUCTIONS

- Please fill out the order form above. Send check or money order payable to:
Lake SWCD
125 East Erie St., Painesville, OH 44077
Payment must accompany order!
- Orders are available for pick-up on Friday, April 11th, 9am-6pm, and Saturday, April 12th, 9am-12pm at the Lake County Fairgrounds, 1301 Mentor Avenue.
- The deadline for ordering is March 7, 2003, or until supplies are exhausted.
- We reserve the right to make substitutions if necessary. If ordering close to the deadline, please call prior to placing your order to confirm availability.
- The plants are nursery inspected to be disease-free. Lake SWCD cannot be responsible for their survival after they have been distributed.
- The District cannot be responsible for any orders that are not picked-up. Please make arrangements for someone to pick up your trees if you are not able to do so. Seedling packets are approximately the size of a grocery bag, so they will transport easily in your car.
- Planting instructions will be available at pick up.
- * A 10% discount will be applied when ordering 100+ trees of the same species, in the bulk category. Please call for availability when making large orders.**

Thank you for your support and interest in this project! Proceeds from the 2003 Tree Sale are used to fund environmental education efforts in Lake County, and to assist with private land conservation.

LAKE SWCD 2003 TREE SALE

SEEDLING, SHRUB, & GROUND COVER DESCRIPTIONS

~Bulk Trees~

(10) **White Pine** – 6"-12" seedlings. Soft blue-green medium-length (4") needles. Adapts to many soil types and moisture conditions. Fast growing. One of the best timber species. Very good ornamental and Christmas tree. 80'-200' when full grown.



(10) **White Fir** – 5"-12" seedlings. Similar to Blue Spruce but is more disease-resistant and lasts longer on our landscape. Grows to 120 ft. Should reach 6 ft. in 8-9 years. One of the most beautiful and easy to care for evergreens. Makes a great Christmas tree. Holds needles best of any short-needle tree. Needs good drainage.

(5) **Canadian Hemlock** – 12"-15" seedlings. Deep green foliage, with a slow growth rate. Good shade tolerance, poor drought tolerance. 60'-100' when full grown.

(5) **Flowering Dogwood** – 18"-24" seedlings. Mature height of 20-40 ft. Dense lustrous, green foliage, turning bright scarlet in the fall. Clusters of white flowers bloom in late May; bright red berries in clusters in the fall. Does best in rich, moist soil, but is known to grow well in average well drained soil.



~Variety Packets~

Forest Hardwood Packet

(3) **Sugar Maple** – 2'-3' seedlings. Brilliant scarlet-orange autumn foliage. Mature trees provide sugar products from sap in the spring. Height to 75 feet. Does not do well in wet areas. Shade tolerant

(3) **Northern Red Oak** – 2'-3' seedlings. Dense, lustrous green foliage turns deep red in the fall. Grows best in sandy to rich loamy soil in full sun. The fastest growing of all oaks. Tolerant of urban conditions.

(3) **Tulip Poplar** – 2'-3' seedlings. Fast-growing tree reaching heights of 100-150 ft. Dense foliage, leaves turning yellow in fall. Tulip shaped flowers are greenish-yellow marked with orange, blooming in Mid-June. Rapid growth in light, well-drained soil.

(3) **Wild Black Cherry** - 2'-3' seedlings. Fast-growing tree reaching heights of 60 ft. Dense dark green foliage, single white flowers in May, followed by black cherries in August. Fall color, yellow. Extremely valuable as timber. Provides food for wildlife. Rich, moist soil, prefers full sun.



Forest Nut Packet

(3) **White Oak** – 2'-3' seedlings. Bright red fall color. Slow growing, reaching heights of 60-100 ft. Grows best in loamy, well-drained soils. Acorns provide great wildlife food. High resistance to ice breakage & oak wilt. Easily transplanted when young.

(3) **Black Walnut** – 2'-3' seedlings. Large tree known for its lumber and edible nuts. Grows to 100 ft. Grows best in deep, rich, moist soils. Needs space to grow properly.

(3) **Shagbark Hickory** – 6"-12" seedlings. Long sheets of

Quantities are indicated in parenthesis before each item.

bark flake off this tree which is often found on bottom lands. Grows to 80 feet or more with a straight trunk; may take up to 20 years before nut production begins. Very long tap root. After transplanting, it takes 2 years to get established. Bright yellow fall color.

Stream & Pond Packet

(3) **River Birch** – 2'-3' seedlings. Insect resistant. Cinnamon colored bark. Very handsome specimen tree. 40'-70' at maturity.

(3) **Banker's Dwarf Willow** – 1'-3' seedlings. A fast growing, dense shrub developed for erosion control on stream banks. Mature height and spread 6 ft. Can withstand flooding; any soil. Space 2 ft. apart, 3 ft. from the normal water line, after high spring waters subside. Has narrow, light green leaves, turning yellow in fall.

(3) **Sycamore** – 2'-3' seedlings. A fast-growing large shade tree, with massive trunk and wide-spreading open crown of massive crooked branches. Smooth, whitish and brown mottled bark that peels off in large thin flakes with age. Reaches heights of 75-100 ft. Prefers moist bottom-land soils; tolerates poorly drained soils.

Wildlife/Homeowners Packet

(3) **Serviceberry** – 6"-12" seedlings. Shade tolerant. Dainty white flowers are among the first spring blooms. Sweet fruits are sought by songbirds. An important wildlife food source in the early summer.

(3) **Butterfly Bush** – 18"-24" seedlings. Highly valued for its summer flowering; makes a fine addition to the shrub or perennial border. Long purple blossoms vary from 6-30" in length. Fine for cut flower use. Attracts butterflies in profusion. Plant in masses 5' apart. It comes as a root. The tops die back every year. 5' -10' at mature height. Fast growing.

(3) **Red Osier Dogwood** – 2'-3' seedlings. A beautiful upright shrub with white blossoms in May, bright red berries in fall with deep red branches. Reaches heights of 6-10 ft. Used for erosion control, streambank protection, and wildlife food. Nice color for landscape.

~Ground Cover and Seed Packets~

(1Packet) **American Wildflower Mix** – A blend of up to 20 different annual and perennial wildflower varieties that will give you many different, vivid colors as the seasons change. One 1-oz. packet per 250 square feet.

(50) **Pachysandra** – A fine evergreen ground cover. Hardy. 1-year plants should cover in two years with 6" spacing.



(20) **Tree Flags** – White in color, tree flags are used for marking and protecting tree seedlings after planting.

For more information about forestry, and for information about Service Foresters in our area, check out our Forest Management web page at

http://www.lakecountyohio.org/soil/forest_managementn.htm



BENEFITS OF PLANTING TREES



What has a tree done for you lately? Those short and tall, woody stemmed plants with leaves or needles are true wonders of nature. From the air we breathe, to a 2-by-4 in your home's wall, the tree has proven to be "humankind's best friend."

Foresters around the globe are trying to manage the world's forest so they are healthier, more plentiful and at the same time provide the many products we all need to survive.

Take a moment to realize just how many things in your everyday lives can be attributed to trees.



Benefits of Healthy Trees:

Trees... look beautiful; provide cooling shade; produce oxygen; absorb carbon dioxide, a factor in global warming; reduce wind erosion; produce food for humans and wildlife; reduce soil erosion; provide habitat for wildlife; produce fiber for paper; increase property values; create recreational opportunities; provide Christmas trees; provide wood for construction; improve our energy efficiency; create privacy; direct pedestrian and vehicular traffic; provide heat for cooking and warmth; screen unpleasant views; provide homes for insects; condition and filter the air we breathe; buffer noise pollution; improve water quality; produce medicines; provide jobs for thousands of Ohioans; beautify our communities; make our cities and towns better places to live and work; are inspirations for poems, songs, stories and folklore. ♦



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

Return Service Requested

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

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

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 - 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.