

Wisconsin Urban & Community Forests

A Quarterly Newsletter of the Wisconsin Department of Natural Resources, Forestry Program

Congratulations Wisconsin Tree Cities!

This past spring, National Arbor Day Foundation announced its Tree City USA certifications for 1998. Wisconsin has 119 Tree Cities this year, a new state record and ranking us 5th in the nation! The 1999 applications are due by December 31, 1999. See the accompanying article below for details about how Wisconsin will honor its 1999 Tree City USAs in spring 2000!

Tree City USA is an excellent goal to strive for when starting a community forestry program. It recognizes those communities that have a fundamental commitment to managing their trees. The Tree City Growth Award recognizes existing Tree Cities that have gone the extra mile to improve their programs.

(For the list to the right, a * indicates a new Tree City USA this year and communities in **Bold** indicate those achieving a Growth Award honor.)



Our congratulations go out to the following Wisconsin communities that have met the Tree City USA standards:

D. Sigmundson

- | | | |
|----------------------|--------------------|-------------------|
| Adams | Green Bay | Paddock Lake |
| Allouez | Greendale | Pittsville |
| Amherst | Greenfield | Plover |
| Antigo | Hartford | Plymouth |
| Appleton | Hillsboro | Port Washington |
| Ashwaubenon | Horicon | Portage |
| Baraboo | Howard | Rice Lake |
| Beaver Dam | Jackson | Ripon |
| Beloit | Kaukauna | River Falls |
| Black River Falls | Kenosha | Rosendale |
| Bloomer | Kimberly | Saukville |
| Brookfield * | La Crosse | Seymour |
| Brown Deer | Lake Geneva | Shawano |
| Burlington | Lake Mills | Sheboygan |
| Cambria | Little Chute | Shorewood |
| Cedarburg | Lodi | Sparta |
| Chenequa | Madison | Stevens Point |
| Chilton | Madison Twnshp. | Stoughton |
| Chippewa Falls | (Dane Co.) | Sturgeon Bay |
| Clintonville | Manitowoc | Sun Prairie |
| Combined Locks | Marinette | Theresa |
| Cottage Grove | Marshfield | Thorp |
| Cudahy | Mayville | Tomahawk |
| Delafield | Medford | Two Rivers |
| Delavan | Menasha | Verona |
| DePere | Menominee Twnshp. | Waterford |
| Dodgeville | (Menominee Co.)* | Waterloo |
| Dresser * | Menomonic | Watertown |
| Eau Claire | Mequon | Waukesha |
| Edgar | Merrill | Waupaca |
| Elm Grove | Middleton | Wausau |
| Fitchburg | Milwaukee | Wauwatosa |
| Fond du Lac | Monona | Wescott Twnshp. |
| Fontana | Monroe | (Shawano Co.)* |
| Fort Atkinson | Monticello | West Allis |
| Fort McCoy | Mount Horeb | West Bend |
| Fox Point | Neenah | Weyauwega |
| Fredonia | New Glarus | Whitefish Bay |
| Fremont | New London | Whitewater |
| Gilman | Oconomowoc | Wisconsin Rapids |
| Grafton | Oshkosh | |

continued on page 4



Volume 7,
Number 2
Summer
1999



Inside this issue:

Community Profile:
Rothschild 2

Project Profile: Weed Out! Garlic Mustard with Park People 3

Assessing Your Organization 5

Tree Profile:
Bur Oak 6

Do You Need a Consultant? 7

What Damaged This Tree? 7

Urban Tree Health Matters: Nectria Canker of Honeylocust 8

Coming Events 8

How to Estimate Tree Age 10

Organization Profile:
USDA Forest Service 12

Idea Exchange 13

New Course Covers Urban Forestry for Engineers 13

Council News: UF Council Seeks Award Nominations 14

Tree Planting Honors Higgs 14

Tree Trivia 15

Corrections 15

DNR Urban Forestry Contacts 16

Banquet Planned to Honor Tree Cities

Attention current and prospective Wisconsin Tree City USA communities and Tree Line utilities: Plan now to attend Wisconsin's first statewide Tree City USA banquet, Wednesday evening, March 29, 2000, at Monona Terrace Convention Center in Madison. The event is intended to increase awareness and recognition of local tree care efforts, provide a forum for interaction among community tree managers and elected officials, honor and thank local tree volunteers (the backbone of many

continued on page 4

2



Community Profile:

Village of Rothschild

by Don Kissinger
DNR West Central Region

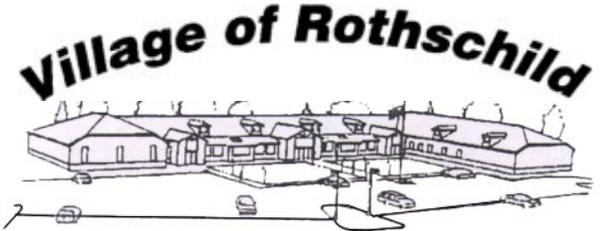
The village of Rothschild is one of several Marathon County communities lying just south of Wausau. It began as company housing for Marathon Paper Mills (now Weyerhaeuser/Lignotech) in 1909. When incorporated in 1917, Rothschild had 450 residents. By the mid-1970s there were 3,400 residents, and it now contributes 5,200 people to the Wausau metro population of over 70,000.

Rothschild's community forestry program history is short, but active. Prior to 1996, tree care was performed on an as-needed basis, meaning removals or pruning only occurred on dead or conflicting trees and limbs. Very little planting and no training pruning took place.

In 1996, Rex Zemke was hired as a forestry intern. He had worked for the village's public works department on a seasonal basis while on break from college, pursuing his degree in urban forestry. To complete his intern obligations, Rex performed a street tree inventory and made recommendations to the village. He also met with other community forestry program leaders in Marinette, Antigo and Howard to see what might be doable in Rothschild.

As a result, Rex brought forward four recommendations to the village board:

1. Focus more effort on the community forest by giving more responsibility to existing staff, annually hiring a forestry intern or creating a



forester/park manager position (a full-time forester position was not presently needed). Rex substantiated this recommendation with a task calendar which identified nine distinct tasks and when during the year each should be addressed.

2. Revise the existing street tree ordinance. The new ordinance would be used to guide the forester and allow for the creation of a village tree board.
3. Prioritize field operations beginning with expeditious removal of all hazard trees, followed by safety pruning and, finally, establishing a routine pruning cycle for street trees.
4. Replace removed hazard trees, if appropriate, and plant new subdivisions and areas that never had trees.

As a result of this work in 1996, many concerns were identified, such as:

- ❖ 78% of the 450 village street trees were maples (red, sugar, silver and Norway)
- ❖ seventy trees, or 15% of the total population, were either dead or in poor condition
- ❖ the overall street tree population was old and declining, as evidenced by the number of large-diameter and tall trees
- ❖ there were more vacant planting spaces than street trees (500 available planting sites were inventoried)

Although a lot of the information from the 1996 inventory and report was not good news, it proved to be the catalyst to move the program forward. In 1997,

continued on next page

Community Profile
Population: 5,252
Number of Parks: 11
Total Park Acreage: 80 (41 developed)
Miles of Street: 37

Primary Industries:
• Weyerhaeuser/
Lignotech - paper products
• Wausau Homes - prefabricated homes
• Wausau Tile - cement Products
• US Filter/Zimpro - waste disposal systems

Program Profile:
Public Works Staff:
Mutch Owen, director
Rex Zemke, forester/
groundskeeper
5-person crew, 4 additional in summer

Equipment:
Chipper, chain saws, hand saws & loppers, Loaders and dump trucks as necessary

1999 Forestry Budget:
\$19,350



Published quarterly by the Wisconsin Department of Natural Resources, Forestry Program.

Address inquiries to Dick Rideout, Wisconsin Department of Natural Resources, PO Box 7921, Madison, WI 53707.

This newsletter is available in alternative format upon request.

Managing Editor: Dick Rideout
Contributing Editors:
Cindy Casey Tracy Salisbury David Stephenson
Don Kissinger Kim Sebastian John Van Ells

Design, Layout & Graphics: David Stephenson
Articles, news items, photos and ideas are welcome.

Unless noted, material in this newsletter is not copyrighted. Reproduction for educational purposes is encouraged. Subscriptions are free.

The Wisconsin Department of Natural Resources provides equal opportunity in its employment, programs, services and functions under an Affirmative Action Plan. If you have any questions, please write to Equal Opportunity Office, Department of the Interior, Washington, DC 20240

This newsletter is made possible in part by a grant from the United States Department of Agriculture Forest Service. The USDA prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. To file a complaint call (202) 720-5964.

Weed-Out! Garlic Mustard with the Park People

*Compiled by Kim Sebastian
DNR Southeast Region*

In 1996 the Park People of Milwaukee County, Inc., the friends organization of the Milwaukee County Parks System, undertook a project to begin removal of garlic mustard for Milwaukee County parks. Garlic mustard (*Alliaria petiolata*) is a deadly threat to Wisconsin's woodlands because it spreads readily into quality woods, completely displacing native wildflowers and the wildlife that depend on them. Garlic mustard produces abundant seed, which is spread on the fur of animals, by flowing water or by human activities.

A survey done in 1995 alerted both the parks department and the Park People to the extent of invasive weeds. The parks department gave their permission for Park People volunteers to work in the parks. Plans were begun for the first garlic mustard Weed-Out!, which would include both education and weed removal. A DNR urban forestry grant provided the necessary funding.

Sign-up brochures, which contained basic information and pictures of garlic mustard as well as other informational material, were distributed. A slide show was prepared and used at various outreach seminars

and expositions. Workers were recruited through brochures, newspaper articles, and TV and radio coverage. Twenty co-sponsors were enlisted, and they published articles in their newsletters, distributed brochures and recruited at meetings. Brochures were also placed in many public buildings.

Two educational sessions were held. The program was planned to educate team leaders but was open to anyone who had an interest in the problem. A lecture was given, samples were shown and, when possible, field exercises were conducted to give volunteers an opportunity to see garlic mustard and pull it. Weeding was scheduled to take place in four parks: Grant, Jacobus, Lake and Whitnall. The locations made it easy for people from all areas of the county to be involved. Weeding was planned for the prime removal time—May through June. Some high school and junior high groups worked on school days in various parks. Several schools have now indicated an interest in adopting a park on an ongoing basis, doing both surveying and weeding.

Coordinators were responsible for each park and team leaders worked with small groups to first identify the plants and then determine the best method for removal. Weeding was scheduled rain or shine with the exception that no one was to work if lightning was present. T-shirts were ordered and given to park coordinators and team leaders to identify them in the park.

If the plants are not in flower and the seed pods not yet set, the plants can be pulled or dug and left on the ground to dry. If the seed pods are forming, the plants have to be bagged and removed to prevent seed dispersal. Because garlic mustard is biennial, locations must be weeded over a five-year period to

continued on page 4

Rothschild *continued from previous page*

the village hired Rex as the forester/groundskeeper. The program then took off as Rothschild applied for and received grants from the National Tree Trust to start a nursery and Wisconsin DNR to plant street trees and teach the local high school conservation classes the proper methods of tree planting. The DNR grant also allowed Rex to attend the annual Wisconsin Arborist Association/DNR urban forestry conference. With these successes, the program was able to purchase much-needed supplies and equipment to address the priority hazard tree situations.

For all of the work accomplished in such a short span of time, the village received the International Society of Arboriculture Gold Leaf Award in 1999 for outstanding efforts in municipal forest beautification and/or programs. The village is not resting on its laurels, though, and has received two more grant

awards from NTT and DNR, which have helped to cut the number of available open spaces substantially. They have done this without planting a single maple out of the 250 bare-root trees planted in the last several years.

Rothschild is also currently working with the village's largest employer, Weyerhaeuser/Lignotech, and Wisconsin Central Railroad to enhance idle grounds adjacent to the factory and the railroad tracks with a significant tree planting.

Rothschild's long-term goals are to become a Tree City USA in 2000, establish a citizen tree board, continue to improve the village's care of trees—especially the newly planted ones—and establish Arbor Day programs in the three elementary schools within Rothschild. With the staff's exuberance and village board's backing, there should only be more successes in Rothschild's future. 🌳



Tree City Banquet *continued from page 1*
municipal programs), and complement and support local Arbor Day observances. Of course, good food, company and atmosphere are other reasons to attend! The banquet will be hosted by the Wisconsin Urban Forestry Council.

You won't want to miss what is sure to be a great event! If you are already a Tree City USA, you'll want to re-certify for 1999. If you are not yet a Tree City, now is an excellent time to become certified. (See the box at right for Tree City USA program standards.)

More information about the banquet will be forthcoming in subsequent issues of this newsletter and via personalized mailings. In the meantime, plan ahead to get your Tree City USA applications in early! **Applications will need to be complete and approved by December 31.** Contact your regional urban forestry coordinator (see p 16) for forms and additional information about the National Arbor Day Foundation's Tree City USA program. 🌳

**To be recognized as a
Tree City USA, a community must:**

- ✓ have a board, committee or municipal department that is responsible for community trees
- ✓ have a municipal tree ordinance authorizing a program of community tree care and management
- ✓ expend a minimum of \$2 per capita on community tree care—*the value of volunteer labor can count toward the expenditure requirement, as can program donations, grants and the like*
- ✓ proclaim and observe Arbor Day—*although Arbor Day in Wisconsin is officially designated as the last Friday in April, local Arbor Day celebrations can take place at any time of year and in any appropriate fashion* 🌳

WI Tree Cities *continued from page 1*

Tree City Growth Awards

The National Arbor Day Foundation honors communities who have gone the extra mile with its Tree City USA Growth Award. The Growth Award recognizes communities who have maintained or increased their tree management budgets, and have made new, additional efforts in one or more of the areas of Education and Public Relations; Partnerships; Planning and Management; or Tree Planting and Maintenance.

This year, 25 Wisconsin communities received the prestigious Growth Award, tying a state record! Congratulations to these honorees:

Amherst	Fontana	New London
Appleton	Fort Atkinson	Rosendale
Ashwaubenon	Greenfield	Seymour
Brown Deer	Hillsboro	Shawano
Burlington	Howard	Stoughton
Dodgeville	Lodi	Theresa
Fitchburg	Marinette	Two Rivers
Fond Du Lac	Mount Horeb	Whitewater
	New Glarus	

New Tree Cities

Two new Wisconsin communities achieved Tree City USA honors in 1998 and two communities returned to Tree City USA status having missed years. Congratulations to:

New	Returned
Brookfield	Menominee Township (Menominee Co.)
Dresser	Wescott Township (Shawano Co.) 🌳

Weed Out! *continued from page 3*

eliminate it. The Park People devised a method to survey the parks on a regular basis to track the level of weed infestation. A parks surveyor manual was put together with instructions on methods for mapping garlic mustard, buckthorn and honeysuckle. Surveyors were recruited and trained. The Park People's goal was to recruit two surveyors to monitor the natural areas in each of the parks on an ongoing basis. Requests for Park People materials have been received from all over the country.

In 1997, efforts were enhanced by producing an educational brochure, expanding the slide program and developing a 20-minute video for the education and recruitment of volunteers. Additional volunteers helped expand the program to include five additional parks. The parks department also approved a coop-

erative program for buckthorn and honeysuckle removal. Park People volunteers cut buckthorn and honeysuckle, and certified county employees applied herbicides.

A complete curriculum guide entitled *Invasive Weeds* was produced, piloted and then distributed to over 50 teachers. In 1998, a special educational workshop for community foresters was conducted. An aerial survey of honeysuckle and buckthorn infestation was done in early fall. Permanent educational signs were created, duplicated and installed along trails to help people identify non-native species.

The Park People continue to develop and expand their program in 1999 and are improving Milwaukee County's parks by educating volunteers and pulling weeds—one at a time. *For more information, please call the Park People at 414-273-7275.* 🌳

Assessing Your Organization

Note: This is the second in a series of volunteer article reprints. This series takes an in-depth look at organizing and operating a volunteer program with the hope that you will see an idea that may help you in your community. These articles were created by American Forests, PO Box 2000, Washington, DC 20013, 800-323-1560.



This questionnaire is designed to help you examine many organizational issues. Record honest and realistic responses on the answer sheet. For different perspectives, copy this questionnaire and distribute to board members, staff and key volunteers. For greater efficiency, recruit a volunteer to solicit answers by telephone.

Building Relationships

1. Does your organization understand and communicate the economic, environmental and social benefits of trees and urban forests?
2. Do you have access to technical expertise either in-house or through connections with government, business or universities?
3. Do you coordinate activities with other tree, environmental or community organizations?
4. Does your organization work well with local government concerning permits and tree ordinances?
5. Does your organization work well with private or corporate sponsors?

Leadership

6. Do board members understand and carry out legal and financial responsibilities?
7. Does the board have an effective committee structure?
8. Is there a process for recruiting new board members based on current board needs?
9. Are there clear job descriptions for board members and an orientation for new members that covers their responsibilities?
10. Do board members appear interested and attend board and committee meetings regularly?
11. Are board meetings well run with agendas, reasonable time limits and clear decision-making mechanisms?
12. Are materials such as the agenda, minutes and background reports mailed to board members before the meeting?
13. Is the current size and structure of the board appropriate for accomplishing its work?

Planning

14. Is there agreement on the mission of the organization?
15. Is there a written plan that accurately reflects the goals, objectives and time frame for conducting activities?
16. Does the plan specify who is responsible for implementation and is that person involved in the process?
17. Does your organization evaluate its programs?

18. Do the staff and board come together annually to review, revise and approve plans?
19. Do staff members develop work plans and set priorities based on the organizational plan?

Financial Management

20. Does the board have a committee that oversees and understands your finances?
21. Is the annual budget developed to reflect the organizational plans and activities?
22. Does your organization have a system of checks and balances to safeguard its finances?

People Management

23. Does your organization have written personnel and operating policies?
24. Do staff members receive job descriptions?
25. Are staff, board and volunteers clear about their responsibilities and lines of authority?
26. Are staff evaluations conducted annually and do they provide a positive forum for evaluating and improving performance?
27. Are conflicts addressed openly and positively?
28. Is there a plan for orienting and training volunteers?
29. Are board, staff and volunteers recognized and appreciated for their contributions?
30. Can volunteers provide suggestions for developing or improving programs?

Marketing and Public Relations

31. Do you effectively communicate program ideas and results to local decision-makers?
32. Do you have a public relations plan?
33. Are printed materials (flyers, newsletters, brochures and annual reports) used effectively?
34. Do you use the media effectively?
35. Is your public image accurate?

Fundraising

36. Do board members financially support the organization?
37. Are board members active and willing participants in raising funds?
38. Do you have committed individuals with knowledge and experience in fundraising?
39. Do you have a fundraising plan that identifies the amount to be raised, types and sources of funds and who is responsible?
40. Are your programs adequately funded?
41. Do you have diversified funding sources?
42. Is your organization making the most of its fundraising potential?
43. Do you involve small donors through a membership program? 



Community Tree Profile:

Bur Oak

(*Quercus macrocarpa*)

by Tracy Salisbury
DNR Northeast Region

Native To: Central US, from the Dakotas, south to Texas and east to Ohio. Also grows into southern Canada.

Mature Height*: 70' to 90'

Spread*: 60' to 90'

Form: Ovate, becoming broadly globose with age; coarse texture; open crown; usually wider than tall.

Growth Rate*: Slow

Foliage: Obovate, to 8" long and 5" across, deeply cut into round-ended lobes; glossy green and smooth above, paler and hairy beneath.

Fall Color: Yellow-brown

Flowers: Males in yellow, drooping catkins; females inconspicuous; borne separately on the same plant in early summer.

Fruit: 1" acorn in a fringed cup that covers 1/2 or more of fruit. The acorns are larger than those of any other North American oak.

Bark: Deeply furrowed into coarse, scaly or rectangular plates with age; dark gray-brown.

Site Requirements: The bur oak is a large tree and needs room to spread. Will adapt to various soils where other oaks sometimes fail, but is difficult to transplant from well-drained soil. Transplant from field nursery in the spring for best survival. It is extremely adaptable to a wide range of environmental conditions like alkaline soils, poor drainage and high clay-content soil. It is also very drought tolerant. It grows slowly and prefers full sun.

Hardiness Zone: 3 to 8

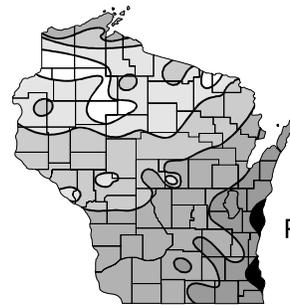
Insect & Disease Problems: Diseases and insects seldom cause serious problems, but it is susceptible to oak wilt (although less susceptible than trees in the red oak group), anthracnose, cankers, gypsy moth and two-lined chestnut borer. Several types of galls are frequently found on leaves and small branches. Although these galls are unattractive, they cause little damage.

Suggested Applications: Young trees have an attractive, symmetrical, dense crown borne on a central trunk, and they are well suited for street tree planting, given adequate space. Architects like the tree due to its uniformity in crown shape. Bur oak makes a majestic tree in a park



Mature bur oak

Photo by Henry D. Gerhold, Penn State University



Plant Hardiness Zones for Wisconsin

*Urban tree size and growth rate vary considerably and are strongly controlled by site conditions.

setting, and may also be suited for some parking lot sites. It should not be planted in terraces less than 10 feet wide, to give plenty of space for trunk and root growth.

Limitations: Difficult to transplant. Transplant shock may last several years and growth rate remains slow even after establishment. Its large, fringed acorns are great for wildlife but may be a nuisance.

Comments: This species is among the toughest of a hardy family. It is a majestic, rugged tree extremely variable, even for an oak that tolerates a very wide range of habitats. It is considered somewhat difficult to transplant, but once established it tolerates urban conditions better than most oaks.

Common Cultivars:

'Schuettei' – A cross between bur and swamp white. It has a faster growth rate, seems to handle alkaline soils better and has a better root system than either parent.

continued on next page



Bur oak leaves

Do You Need a Consultant?

by Cindy Casey
DNR West Central Region

This is the first in a two-part series on using consultants to help manage the community tree resource. Part two will cover consultant selection and the client-consultant relationship.

What is a consulting arborist?

Consultants are professionals who provide their time, experience, knowledge and judgment for a fee. The *consulting arborist* is one who has expertise in woody plant care and management in developed settings—generally urban and residential areas. Consulting arboriculture does not usually include hands-on tree care, although some consultants offer commercial tree care as well as consulting services. In contrast to commercial arborists, who plant, prune, fertilize, spray, remove and otherwise treat trees, consulting arborists interpret facts, analyze circumstances, reach conclusions and offer opinions related to trees and their care. According to the American Society of Consulting Arborists, consulting arboriculture is a profession which “involves the unbiased, independent application of technical knowledge, analytical skills and professional judgment to arboricultural-related facts and circumstances to produce appropriate conclusions and recommendations.”

Why hire a consultant?

Not all communities have—or need—a full-time professional forester. However, there are occasions when a community needs specialized or protracted urban forestry services, but existing staff lack the necessary time and/or expertise. Some projects are simply too important, technically demanding or time consuming to be left to anyone but an experienced professional. Although hiring a consultant costs money, the investment can be very cost effective in

terms of thoroughness, technical integrity and avoidance of expensive mistakes. For projects funded by DNR urban forestry grants, consultant services can be eligible for reimbursement.

What can a consultant do for you?

A broad range of sub-specialties exists within the field of consulting arboriculture. A given consultant generally offers several to many of the following services:

- ❖ *tree valuation and damage appraisals* – A consultant can quantify the value of individual trees to promote informed decision making about trees and their care. Proposed public works projects in some communities have been scrapped or modified to accommodate existing trees once the value of those trees was made known. Consultants can also provide damage appraisals and cost of cure or replacement estimates. Such assessments are useful for insurance claims and collection of damages.

continued on page 10



What Damaged This Tree?

by Kim Sebastian
DNR Southeast Region



Photo by Robin Mueller, Village of Shorewood

Bur oak *continued from previous page*

References:

- Street Tree Factsheets*, by Henry Gerhold, Willet Wandell and Norman Lacasse, Pennsylvania State University, University Park, PA 16802.
- The Right Tree Handbook*, by Harold Pellett, Nancy Rose and Mervin Eisel, University of Minnesota Extension Service, St. Paul, MN 55108-6069.
- Landscaping With Native Trees*, by Guy Sternberg and Jim Wilson, Chapters Publishing Ltd., Shelburne, VT 05482.
- Trees for Urban and Suburban Landscapes*, by Edward F. Gilman, Delmar Publishers, Albany, NY 12212. 🌳

Turn to page 15 to find out...

Nectria Canker of Honeylocust—Prune in Summer to Avoid Disease

by Glen R. Stanosz, Ph.D., Associate Professor
Departments of Plant Pathology and
Forest Ecology and Management
University of Wisconsin—Madison

Honeylocust (*Gleditsia triacanthos*) is remarkably well adapted to growth in urban conditions, and suffers from relatively few severe insect and disease problems. It is easy to transplant, grows quickly and turf can persist in the light that filters through its canopy. In recent years, however, honeylocust trees have been affected with increasing frequency by a potentially serious canker disease caused by the fungus *Nectria cinnabarina*.

Spores of *Nectria cinnabarina* are distributed by wind and/or rain and can germinate in fresh stem wounds. The pathogen colonizes and kills bark, the vascular cambium and underlying sapwood. The resulting killed (and often sunken) lesion is referred to as the canker. If bark is removed, a distinct margin usually separates healthy from diseased tissue. Both sexual and asexual fruiting bodies form in killed areas. Their presence is used to confirm diagnosis of *Nectria* canker. The bark within the canker becomes discolored, cracked and may fall off. Honeylocust often responds to invasion by canker pathogens by



Photo by Dr. Glen Stanosz, UW—Madison

Nectria canker on honeylocust often results from infection of pruning wounds (note branch scar at center of canker). This tree was pruned in midwinter, when it was unable to respond to invasion by the pathogen.

producing a layer of callus around the affected area, giving some cankers a swollen appearance. Cankers usually expand for at least one year, and may grow completely around (“girdle”) and kill branches and small stems. A canker is a point of structural weakness, and cankered stems are prone to breakage during high wind or under snow load. Some decay fungi also enter trees at cankers, and further increase the potential for failure.

Nectria cinnabarina exploits both natural wounds and those produced by people. Cracks in branch crotches are common sites of canker initiation. The presence of branch stubs or pruning scars within

Coming Events

January 23–25, 2000—Annual Urban Forestry Conference and Trade Show. Co-sponsored by the Wisconsin Arborist Association, Wisconsin DNR and Wisconsin Landscape Contractors Association. Madison Marriott West, Middleton, WI. Contact Marcia Wensing, 262-681-8485.

February 1–3, 2000—Trees and Utilities National Conference. Lied Conference Center, Nebraska City, NE. Contact the National Arbor Day Foundation, 402-474-5655 or conferences@arborday.org.

March 13–15, 2000—Building with Trees National Conference. Lied Conference Center, Nebraska City, NE. Contact the National Arbor Day Foundation, 402-474-5655 or conferences@arborday.org.

March 28–29, 2000—Minnesota Shade Tree Short Course, Bethel College, Arden Hills, MN. Contact Tracy Benson, 612-624-3708.

March 29, 2000—Wisconsin Tree City USA Recognition Banquet, Monona Terrace Convention Center, Madison, WI. For more information, contact your regional urban forestry coordinator (see p 16).



cankers indicates that pruning wounds also can be invaded. Fresh pruning wounds are susceptible to infection for about one week.

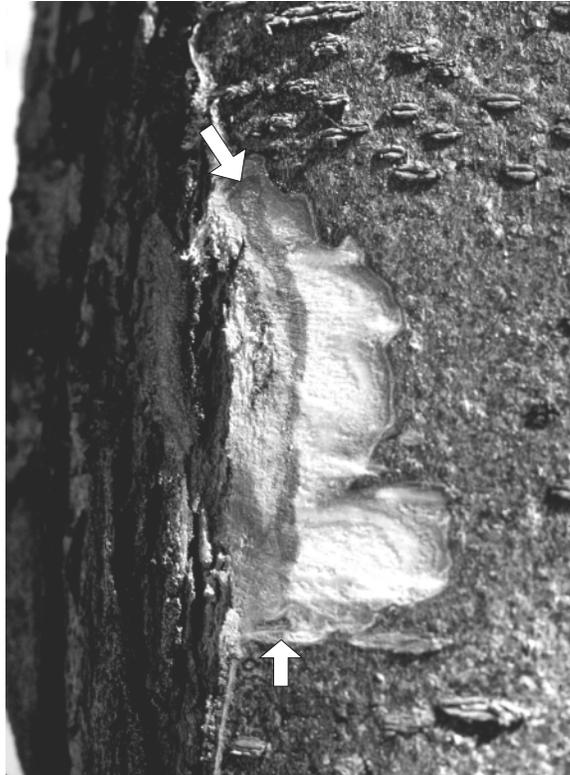
Research on the biology of *Nectria cinnabarina* and the conditions that enhance disease development has led to suggestions for reducing damage to honeylocust. Sexual spores of the fungus can be disseminated in wet weather, even in winter, and germinate at temperatures as low as zero degrees centigrade (32° F). Because defensive responses that are active during the growing season are inhibited in dormant trees, *Nectria* canker development is most likely from invasion of late fall or winter wounds. Restricting honeylocust pruning to late spring and early summer, when trees can actively defend themselves, will reduce the incidence of cankers. The frequency of cankers might also be decreased by pruning off and destroying cankered branches to remove the source of inoculum (spores).

Like many other canker diseases, *Nectria* canker development also is enhanced by conditions that cause host stress. Trees experimentally subjected to water stress, which may be induced by drought or transplanting, developed larger cankers than trees with more favorable water status. Thus, honeylocust should be established in soils with good moisture-holding capacity, and should be well-watered at the time of transplanting and during extended droughts. When transplanting, the largest practical root ball should be maintained. Pruning should be avoided at the time of transplanting or during droughts.

Future research might lead to other measures to reduce the damage caused by *Nectria* canker. Observations have led to the conclusion that common honeylocust trees are less likely to be damaged than commercial cultivars/clones. Therefore, it seems likely that trees with proven disease resistance could be selected and made available to the nursery trade. In

addition, because the disease also is associated with cold injury, northern selections with exceptional cold tolerance might be good candidates for further disease-resistance testing. Finally, fungicide wound treatments that are available for prevention of some other canker diseases (e.g., *Cytospora* canker of peach) could be tested. If effective, these might be applied at the time of pruning, especially in nursery production and on young landscape honeylocust trees.

© Copyright August 1999 by Glen R. Stanosz. All rights reserved. 🌿



Removal of bark with a pocket knife usually reveals a distinct margin separating healthy (right) from diseased tissue (left).

Photo by Dr. Glen Stanosz, UW—Madison

Events, cont.

May 9–11, 2000—Using Conservation Buffers in Urbanizing Landscapes National Conference. Lied Conference Center, Nebraska City, NE. Contact the National Arbor Day Foundation, 402-474-5655 or conferences@arborday.org.

June 11–13, 2000—The Ecology of Urban Soils: Designing and Managing Soils for the Living Landscape. St. Paul, MN. Contact Cindy Ash, cash@scisoc.org or 651-454-7250 or www.scisoc.org/opae/shortcourse.

August 6–9, 2000—International Society of Arboriculture Annual Conference and Trade Show, Baltimore, MD. Contact ISA, 217-355-9411.

September 28–30, 2000—Tree City USA National Conference. Lied Conference Center, Nebraska City, NE. Contact the National Arbor Day Foundation, 402-474-5655 or conferences@arborday.org. 🌿

If there is a meeting, conference, workshop or other event you would like listed here, please contact Dick Rideout at 608-267-0843 with the information.

How to Estimate Tree Age

(source unknown)
Submitted by David Stephenson
DNR South Central Region

Whenever I drop a big tree, I almost automatically put aside the chain saw and turn my attention to counting annual rings in the stump. Most loggers and arborists that have ever paid attention to this irrefutable testimony of a tree's age develop a good eye for judging ages of living trees. There is obviously a positive correlation between tree girth and tree age. Growth rate, however, varies considerably between species. Tree health, soil, climatic and site conditions also have a significant effect on rate of annular growth.

You won't really know how old a tree is unless you take a core boring into the trunk or cut it down.

You can make fairly good estimates, however, using a simple formula published by the International Society of Arboriculture.



First, determine tree diameter in inches measured at 54 inches above ground level. Remember that diameter equals circumference divided by 3.14. The following table assigns a factor number to various species. Multiply the diameter in inches by the appropriate factor to determine the estimated tree age. A 22" diameter white oak, for instance, would be approximately 110 years old (22 inches diameter x 5).

Tree species, variety or cultivar Factor¹

<i>Abies concolor</i> – white fir	7½
<i>Acer campestre</i> – hedge maple	4
<i>Acer nigrum</i> – black maple	5
<i>Acer platanoides</i> – Norway maple	4½
<i>Acer rubrum</i> – red maple	4½
<i>Acer saccharinum</i> – silver maple	3
<i>Acer saccharum</i> – sugar maple	5½
<i>Aesculus hippocastanum</i> – common horsechestnut	8
<i>Aesculus octandra</i> – yellow buckeye	5
<i>Betula nigra</i> – river birch	3½
<i>Betula pendula</i> – European white birch	5
<i>Carya ovata</i> – shagbark hickory	7½
<i>Fagus grandifolia</i> – American beech	6
<i>Fagus sylvatica</i> – European beech	4
<i>Fraxinus americana</i> – white ash	5
<i>Fraxinus pennsylvanica lanceolata</i> – green ash	4
<i>Gymnocladus dioicus</i> – Kentucky coffeetree	3
<i>Juglans nigra</i> – black walnut	4½
<i>Liquidambar styraciflua</i> – sweetgum	4
<i>Liriodendron tulipifera</i> – tuliptree	3
<i>Picea abies</i> – Norway spruce	5
<i>Picea pungens</i> ‘Glauca’ – blue Colorado spruce ..	4½
<i>Pinus nigra</i> – Austrian pine	4½
<i>Pinus resinosa</i> – red pine	5½
<i>Pinus strobus</i> – white pine	5
<i>Pinus sylvestris</i> – Scots pine	3½
<i>Platanus occidentalis</i> – American sycamore	4
<i>Prunus serotina</i> – black cherry	5
<i>Pseudotsuga menziesii</i> – Douglas-fir	5
<i>Pyrus calleryana</i> ‘Bradford’ – Bradford pear	3
<i>Quercus alba</i> – white oak	5
<i>Quercus coccinea</i> – scarlet oak	4
<i>Quercus imbricaria</i> – shingle oak	6
<i>Quercus palustris</i> – pin oak	3
<i>Quercus rubra</i> – northern red oak	4
<i>Quercus shumardii</i> – Shumard oak	3
<i>Tilia cordata</i> – littleleaf linden	3
<i>Ulmus americana</i> – American elm	4

¹Factor x diameter in inches = tree age.

Consultants *continued from page 7*

❖ *tree risk assessment and removal recommendations* – Most communities recognize their obligation to insure safe use of public rights-of-way. Large trees can—but do not automatically—constitute a safety hazard. A consultant can discern those trees that pose a legitimate risk to public safety, propose abatement measures where appropriate and help avoid needless removal of valuable trees that are not inherently hazardous.

❖ *developing urban forestry program plans* – Communities often rely on consultants to prepare urban forestry strategic and management plans. Having a consultant assist in preparing these “blueprint” plans frees up staff for day-to-day management needs and allows program volunteers to focus on shorter term or higher profile activities.

continued on next page

❖ *drafting tree ordinances* – Rather than adopting a “model ordinance” or one from some other community, a consultant can work with a community to customize a vegetation ordinance for its own particular needs and circumstances.

❖ *writing and enforcing specifications* – Many communities contract for tree services. A consulting arborist can customize tree purchasing, installation, maintenance and removal specifications to help ensure adherence to technical and safety standards. Some consultants can also be hired to monitor the work and enforce specifications.

❖ *performing tree inventories* – Tree inventories are a useful tool for guiding and scheduling tree care operations, as well as a basis for other management decisions. Many consultants have developed their own inventory software programs. Others are familiar with one or more of the more common inventory programs that are available commercially.

❖ *ecological restoration* – This increasingly popular trend in developed areas requires far more knowledge and skill than simply installing some native plants. To restore ecological function, the consultant analyzes site conditions and makes recommendations on issues such as drainage, stability, soil properties, contamination, invasive and exotic species, maintenance, etc.

❖ *landscape design and plant selection* – Few non-professionals have the ability to effectively combine the art of landscape design with the science of arboriculture. A consultant can develop landscape plans that are not only aesthetically pleasing, but also match the physical and biological requirements of plants with the site.

❖ *plant health care* – Consultants can formulate plans to conduct comprehensive plant health surveys and propose research-based pest prevention and control strategies. Plant health care focuses on maintaining plant health, as opposed to treating problems.

❖ *diagnostics and treatment recommendations* – Accurate diagnosis of tree health problems

requires broad technical knowledge, practical experience and sleuthing skills. A good consultant can not only diagnose and propose treatment for overt problems, but can also recognize underlying causes that might predispose woody plants to pest problems in the first place.

❖ *tree protection on development sites* – With growing awareness of the impacts of construction on trees, consultants are increasingly called upon for tree protection on construction sites. Don’t make the mistake, however, of waiting to call in a consultant until the heavy equipment arrives. To adequately protect existing trees, the consultant should be included in all project phases, from planning all the way through to completion.

❖ *municipal program management* – Some communities contract for urban forest management services, essentially paying a consultant to perform the functions of a city forester. This can be an effective solution for municipalities that do not need a full-time forester.

❖ *training* – Consultants can provide a wide array of customized arboricultural training to municipal forestry, parks, streets or public works crews.

❖ *grant application* – Some consultants are available to write grant applications. Having

a consultant prepare an urban forestry grant proposal does not necessarily improve or reduce the chance of funding, but for communities who cannot otherwise find time to apply, it’s one way to get the job done.

❖ *expert witness* – In the event of legal action concerning damage to trees—or caused by trees—a consultant can provide expert witness testimony.

How do I find a consultant?

The Department of Natural Resources maintains a list of companies and individuals who provide consulting arboriculture and urban forestry services in Wisconsin. The department has also developed *Guidelines for Working with Consultants on Urban Forestry Grant Projects*, which includes a suggested procedure for soliciting consultant services. Both of these publications are available on our website or you can contact your regional urban forestry coordinator for a copy of either publication. (See map and URL on p 16.)



Organization Profile:

USDA Forest Service



Urban and Community Forestry



By John Van Ells
DNR Southeast Region

The United States Department of Agriculture Forest Service carries out its work through four major divisions—the National Forest System, Forest Service Research, International Forestry, and State and Private Forestry.

State and Private Forestry

State and Private Forestry programs offer specific types of assistance to a wide range of customers including federal land managing agencies, state forestry agencies, local governments, schools, universities, associations and volunteer groups.

Forest Health Mgmt.	Forest Stewardship
Stewardship Incentive Prog.	Fire Management
Natural Resources Cons. Ed.	Forest Legacy
Urban & Community Forestry	Economic Action

State and Private Forestry works through the Forest Service's regional offices and through a special Northeastern Area office to provide this assistance. Wisconsin is served by the Northeastern Area, which is made up of 20 northeastern states and the District of Columbia. (Note that the area headquarters just moved to Newtown Square, Pennsylvania in November of 1999.)

Role of State and Private Forestry

- In bringing forestry to people, the Northeastern Area
- provides leading edge technical expertise
- supports strong state forestry programs
- provides financial incentives for applying leading-edge technology and implementing long-term conservation practices
- serves as a regional clearinghouse for information
- avoids the need for major corrective federal expenditures in the future by investing annually in sound land management strategies

Urban and Community Forestry

The Northeastern Area State and Private Forestry Division provides technical and financial support for urban and community forestry projects and promotes natural resources management as a means to address the economic, social and environmental needs in communities.

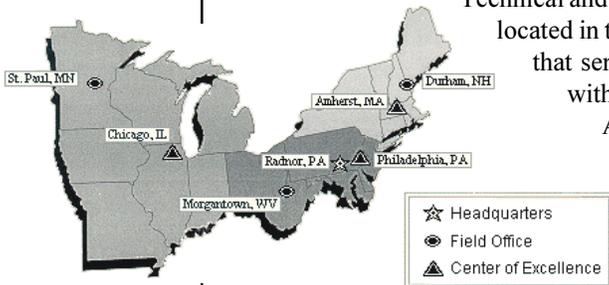
The vision for urban and community forestry in the northeastern area has remained essentially constant since 1990, ... "to achieve community sustainability and an enhanced quality of life through stewardship of urban and community forests and related natural resources." This reflects a fundamental shift in responsibility from government to individual citizens to accept a key role for the stewardship of critical natural systems that sustain our collective well being.

The goals of the Urban and Community Forestry Program are to effect change within the various agencies, organizations and individuals through awareness, outreach, partnerships and ecosystem-based management.

In addition to Urban and Community Forestry, several other USDA Forest Service program areas such as Forest Health, Natural Resources Conservation Education and Economic Action support urban and community forestry projects. All program areas promote partnerships among federal, state and local government agencies, as well as private and nonprofit organizations, to improve the quality of life of the people and communities in the region.

For more information about the Forest Service's urban forestry program, visit their website: http://www.fs.fed.us/spf/coop/ucf_general.htm

Technical and managerial staff are located in three field offices that serve three sub-areas within the Northeastern Area. The St. Paul, Minnesota field office serves the seven midwestern states.



Three Centers of Excellence have been established. These centers support the technology transfer component of the federal urban forestry program and partner with Forest Service research, universities and conservation organizations. (Note that the Urban Forestry Center for the Midwestern States has also recently moved—from Chicago to St. Paul.)

The Idea Exchange...

Compiled by John Van Ells
DNR Southeast Region

Another Bridge between the Ports

A first-time joint tree board meeting between the cities of **Superior**, Wisconsin and Duluth, Minnesota took place in June. The purpose of the meeting was to share program successes, strategies and challenges. Of particular interest was Duluth's zone management concept, because Superior is planning a similar approach to public tree care. The tree boards also discussed ideas for future cooperative efforts, such as tree purchasing, a combined Arbor Day event and continued joint meetings. *Info: Mary Morgan, 715-394-0270.*

Consumers Have Spoken

For the hereafter, consumers want to be laid in the shade. As families increasingly lobby for plots out of the sun's glare, in part because of growing interest in **trees as living monuments**, Waukesha's municipal cemetery has found a new product to market: saplings.

Cemetery officials have long known that those buying grave plots often express interest in sites near trees. Some people will even purchase a tree for someone who is buried elsewhere so they have something nearby to visit. There is a whole range of reasons why people choose to have trees near their grave or the grave of a family member. Those interested in having a tree nearby generally have to purchase another plot or two just for the sapling.



Most people are comforted by a tree, having positive memories associated with a certain type of tree or simply enjoying the shade and the aesthetics. What better memorial than a tree that's going to be there forever?
Info: condensed from an article in the Milwaukee Journal Sentinel on Aug. 6, 1999.

13



Does your community or organization have an idea, project or information that may be beneficial to others? Please let your regional urban forestry coordinator know. We will print as many of these as we can.

If you see ideas you like here, give the contact person a call. They may be able to help you in your urban forestry efforts.

New Course Covers Urban Forestry for Engineers

The University of Wisconsin–Madison's Department of Engineering Professional Development will be offering a new urban forestry continuing education course for non-urban forestry personnel. This course is designed for people who must deal with tree-related issues while working in such fields as municipal engineering, sidewalk and street construction and maintenance, subdivision planning and design, etc.

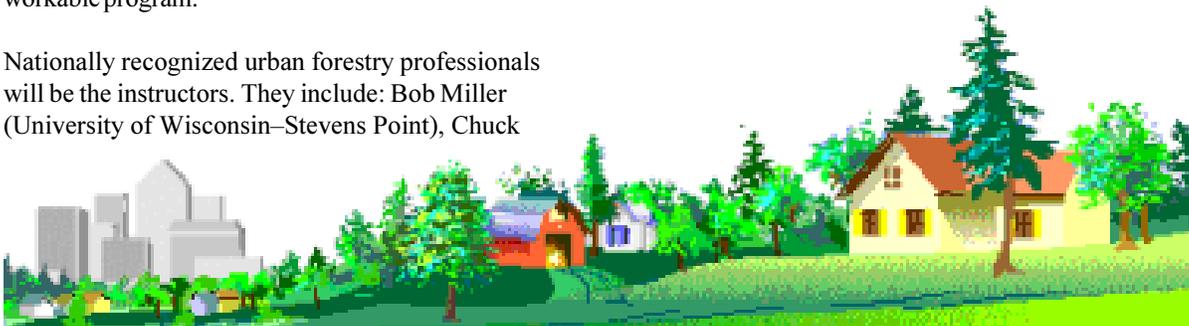
This two-day course will provide an overview of the principles of urban forestry. It will cover such specific topics as minimizing damage to trees during construction, minimizing damage to infrastructure thought to be caused by trees, and implementing a workable program.

Nationally recognized urban forestry professionals will be the instructors. They include: Bob Miller (University of Wisconsin–Stevens Point), Chuck



Stewart (Urban Forest Management, Inc.), Ken Ottman (city of Milwaukee), Dick Rideout (Wisconsin DNR) and Steve Ruffolo (city of Downer's Grove, IL).

The course will be held February 21–22, 2000 in Madison, WI. For information, please contact Dr. Howard Rosen, 608-262-4341, or contact EPD's website at: <http://epdwww.engr.wisc.edu>



UF Council Seeks Award Nominations

by Roald Evensen, Chair
Wisconsin Urban Forestry Council

The Wisconsin Urban Forestry Council is seeking nominations for the 2000 Wisconsin Urban Forestry Awards.

There are three award categories recognized by the council. The **Distinguished Service Award** recognizes individuals for their outstanding contributions to urban forestry in Wisconsin. The **Project Partnership Award** recognizes outstanding projects that have developed new partnerships in urban forestry. Finally, the **Long-Term Partnership Award** recognizes the work of groups that have established long-term working partnerships that provide new means of providing service to the urban forest.

Nominations should include:

- ✦ Name(s), addresses(s) and phone numbers(s) of the individual/organization being nominated.
- ✦ Project name, if applicable.
- ✦ Name(s), addresses(s) and phone numbers(s) of persons to be contacted regarding the nomination.

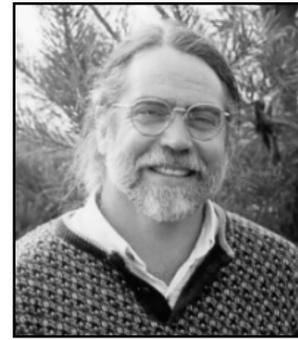


Photo by Bob Queen, WDNR

Council Chair Roald Evensen

- ✦ A description of the merits of the individual or the achievements of the project or partnership. Include the goals/objectives of the project and detail the outcome or impact the action had on the community. Why do you believe this nominee is deserving of the award? Feel free to attach any supporting documents (news clippings, photos, letters, etc.) that strengthen the nomination.

Nominations should be sent to Dick Rideout, WDNR Forestry, PO Box 7921, Madison, WI 53707. **Nomination deadline is December 23, 1999.** This year's awards will be presented at the Wisconsin urban forestry conference in Madison on January 23-25, 2000.

If you would like more information, please contact your regional urban forestry coordinator (see p 16) or a member of the Wisconsin Urban Forestry Council. ✦

Tree Planting Honors Higgs

The Wisconsin Urban Forestry Council honored retired Wisconsin State Forester Charles Higgs on May 28 by planting three trees at Heritage Hill State Park in Green Bay. The council recognized Higgs for supporting the state's urban forestry program during his 1989-1998 tenure as state forester.

"Charlie nurtured the Wisconsin urban forestry program within the DNR and made it one of the top programs in the nation," said Council Chair Roald Evensen.

"Since its inception in 1990, the Wisconsin urban forestry program has helped hundreds of Wisconsin communities recognize the value of the urban tree resource. These communities have developed plans that will protect and enhance the resource in the future," Evensen said.

The park's buildings are grouped in four time periods, with plantings that suggest the original natural

continued on next page



Photo credit: Dave Crehore

(l to r) Charlie Higgs, Tracy Salisbury (DNR Regional Urban Forestry Coordinator, Green Bay), Jeff Hieb (Landscape Coordinator at Heritage Hill State Park), Jeff Edgar (Vice President, Silver Creek Nurseries) with Charlie's granddaughter in the front.

Tree Trivia

compiled by John Van Ells
DNR Southeast Region

What is the life span of a typical downtown tree?

The typical life span of a downtown tree is only **seven** years. Due to a lack of root space and poor, compacted soils, most downtown trees are essentially “potted plants.”

What kind of tree gets struck by lightning more than any other kind?

Oaks, because they tend to grow taller than most other species.

Trees make up what percentage by weight of all the green plants?

Trees make up an estimated 80% by weight of the 49 trillion tons of green plants on the planet.

What tree is known as the “living fossil”?

The ginkgo tree, because fossil records show it was around during the days of the dinosaurs, unlike most other kinds of trees living today.

Why do we “knock on wood”?

Superstition! People knock on wood to thank the tree’s spirit for granting them a favor.

Where are a tree’s roots located in the soil?

90% of a tree’s roots are in the top 12 inches of the soil. This is why it’s important not to compact the soil or disturb the ground beneath a tree.

How far do roots extend from a tree?

Roots can extend up to **three** times the height of the tree. The shape of a tree, including its roots, actually resembles a wine glass set on a plate.

How much water can a tree take up from the soil on a warm summer day?

A large leafy tree may take up as much as a **ton** of water from the soil every day.

How much can bark thickness vary from tree to tree?

The bark on a birch tree may be only 1/4 inch thick, while the bark of a giant sequoia can be 2 feet thick.

When is Arbor Day celebrated in Wisconsin?

In Wisconsin, Arbor Day is always celebrated the last Friday in April.

How many kinds of trees are there in the world?

There are over 20,000 different kinds of trees in the world.

How many leaves does it take to grow an apple?

It takes 30 leaves to grow a Jonathan apple and 50 leaves to grow a big Delicious apple.

What is the cambium and where is it located?

The cambium is a thin layer of growing cells, just under the bark.

When does root growth occur?

Root growth can occur any time soil temperature is above 32° F. 🌱

15

Correction

The article *Wisconsin’s Arboreta and Botanical Gardens* in the spring, 1999 issue of this newsletter listed an incorrect address for the Green Bay Botanical Garden. The correct address is 2600 Larsen Road, Green Bay, WI. The article also incorrectly reported that the botanical garden is not yet fully operational—it is. We apologize for any inconvenience the misinformation may have caused. 🌱

Charlie Higgs *continued from previous page*

vegetation communities in Wisconsin. Most of the species are native, and tree community types flow throughout the park’s time periods. This was selected as the planting site because Higgs has retired in Green Bay and also directed the DNR’s Lake Michigan District from its Green Bay office for many years.

The trees planted in Higg’s honor were a white ash and two white pines. The ash (provided at cost by the Bruce Company) was planted in the park’s maple-basswood community and the pines (provided at cost by Silver Creek Nurseries) were planted in the oak-hickory community. “Members of the council put up their personal funds to purchase these trees,” said Evensen, “to honor Charlie’s personal commitment to urban forestry.” 🌱

From page 7 -

What Damaged This Tree?

Answer: Mulch isn’t always a tree’s best friend. The ground around these lindens was edged, and the sod and soil placed around the base of the tree like a volcano. The “volcano” was then topped off with mulch, raising the grade by 10 inches. Not only will this well-intentioned job result in the decline of these trees, but it will also act as a poor showcase of tree care in the village.

Robin Mueller, Chief Forester
Village of Shorewood

(If you noticed the salt damage to the turf along the sidewalk, you get extra points - Editor) 🌱

Do you have pictures of tree damage others ought to know about? Send them to Kim Sebastian (address on page 16) and we’ll print them here!

Wisconsin Department of Natural Resources
Bureau of Forestry
P.O. Box 7921
Madison, WI 53707

BULKRATE
U.S. POSTAGE
PAID
MADISON, WI
PERMIT NO. 906

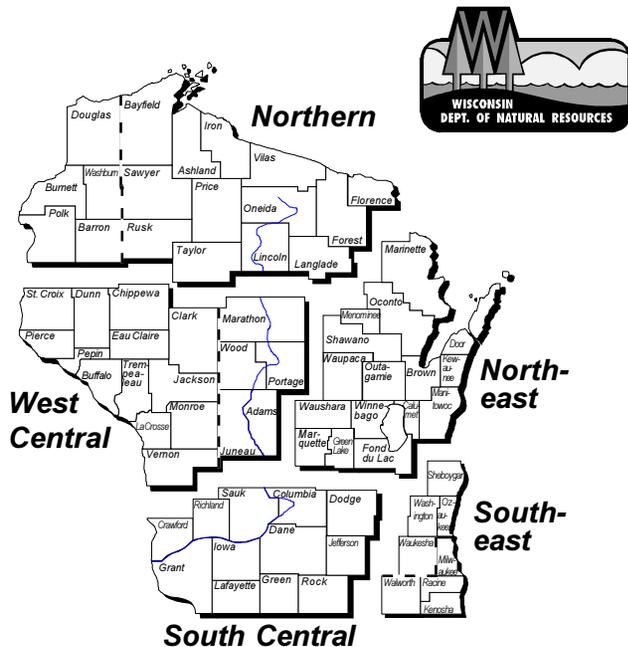
ADDRESS SERVICE REQUESTED

16

Wisconsin
DNR Urban
and
Community
Forestry
Contacts



Printed on
Recycled Paper



West Central Region - W½
Northern Region - W½
Cindy Casey
Regional Urban Forestry Coord.
1300 West Clairemont Ave.,
Box 4001
Eau Claire, WI 54702
Phone: (715) 839-1606
Fax: (715) 839-6076
e-mail: caseyc@dnr.state.wi.us

West Central Region - E½
Northern Region - E½
Don Kissinger
Regional Urban Forestry Coord.
5301 Rib Mountain Drive
Wausau, WI 54401
Phone: (715) 359-5793
Fax: (715) 355-5253
e-mail: kissid@dnr.state.wi.us

South Central Region -
David Stephenson
Regional Urban Forestry Coord.
3911 Fish Hatchery Road
Fitchburg, WI 53711
Phone: (608) 275-3227
Fax: (608) 275-3236
e-mail: stephd@dnr.state.wi.us

Statewide -
Richard Rideout
State Urban Forestry Coord.
Wisconsin DNR
P.O. Box 7921
Madison, WI 53707
Phone: (608) 267-0843
Fax: (608) 266-8576
e-mail: rideor@dnr.state.wi.us

Northeast Region -
Tracy Salisbury
Regional Urban Forestry Coord.
1125 N. Military Ave.
P.O. Box 10448
Green Bay, WI 54307
Phone: (920) 492-5950
Fax: (920) 492-5913
e-mail: salist@dnr.state.wi.us

Southeast Region -
Kim Sebastian
Regional Urban Forestry Coord.
2300 N. Martin Luther King Jr. Dr.
Milwaukee, WI 53212
Phone: (414) 263-8602
Fax: (414) 263-8483
e-mail: sebas@dnr.state.wi.us

Southeast Region - North ½
John Van Ells
Urban Forestry Coord.
Pike Lake State Park
3544 Kettle Moraine Road
Hartford, WI 53027
Phone: (262) 670-3405
Fax: (262) 670-3411
e-mail: vanelj@dnr.state.wi.us
(Sheboygan, Washington,
Ozaukee & Waukesha Counties)



Visit our World Wide Web site at: <http://www.dnr.state.wi.us/org/land/forestry/uf/>