

# Trees of Chicago Area Golf Courses

by Thomas L. Green & Kris R. Bachtell

## The Importance of Trees

Many Chicago area golf courses are dominated by large trees. The value the trees add to the course is difficult to measure, but is very real; imagine Medinah Course #3, Butler National, or Cog Hill's — Dubs Dread without their trees. Trees add to the beauty of the course. Research has demonstrated that people are subconsciously attracted to areas with mature and developing trees. The trees and the well-maintained grounds of the golf course makes the golf experience that much more relaxing and pleasurable. Trees also provide cooling, shade comfort on hot, sticky summer days. Well-positioned trees can accent buildings, while screening unpleasant views.

One of the most important functions trees provide to a golf course is a higher level of difficulty to the game. Specimens that line the fairway require the golf shot to be accurate. This tree placement makes it more difficult for the golfer to "get away" with a slice or a hook. Often times the golfer will have to use an additional stroke (or two) to position the ball for a clear shot to the green. Trees located on the inside of the bend on dog-legged holes are particularly important, adding both length and difficulty to the hole. Loss of only one strategically placed tree on a dog-leg can change the handicap of the hole. When positioned behind a green, trees provide a visual screen and help the golfer judge the distance to the stick. When asked, most superintendents can articulate quickly which trees are the most important to the golf course. Without trees, the courses would play very differently.

A less obvious function of trees is the safety they provide to golfers. Specimens that line a fairway are valuable in protecting golfers on adjacent fairways from errant balls. Trees near a tee are particularly useful in deflecting misdirected balls driven off the tee.

## New Tree Selection

Proper plant selection is an important first step. To select the most appropriate plant, first determine the function of the location (as discussed earlier), the size requirements of the location, as well as the soil and moisture conditions of the site. Selecting an appropriate species will allow the tree to fulfill the function for which it was planted. Selecting the wrong plant is a waste of money. Most often it fails to survive, or it can require extra time and expense to maintain. Strive to plant a diversity of trees. Planting several different kinds of trees guarantees that one insect pest or disease pathogen is not likely to affect a large number of trees and thus cannot greatly alter the play or landscape of the golf course (as Dutch Elm Disease did with American elms more than 30 years ago). Good species diversity is mother nature's own defense mechanism. A good rule to follow is that one species, for example, green ash (*Fraxinus pennsylvanica*) should not make-up more than 7% of the total number of trees. Additionally, one plant group or genus, for example, ashes (*Fraxinus*), should not make up more than 20% of the total since many of the pests are similar for the different species within the genus. (cont'd. page 21)

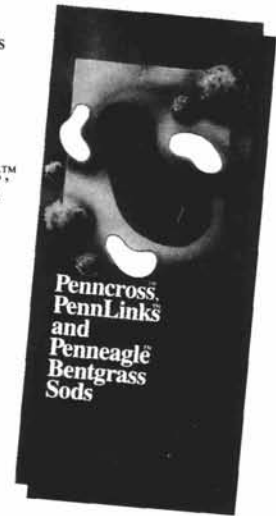
## Finally, Bent Sod With Assured Compatibility PENNCROSS GROWN ON A FUMIGATED USGA GREENS MIX SOIL

H & E Sod Nursery provides you with PennCross™ Bentgrass Sod that is grown on fumigated USGA Greens Mix soils making this superior turf totally compatible with golf course greens anywhere in the country.

For more facts about all of the top golf course turfs we provide: PennCross™, PennLinks™ and Penneagle™ Bentgrass Sod...phone, fax, or write for a FREE INFORMATION PACKET:  
3900 West 167th Street,  
Markham, IL 60426.  
Fax: 708-596-2481.

Phone: 708-596-7200

**HE SOD**  
nursery, inc. 



Gregory E. Martin  
General Partner

1700 North Farnsworth

Suite Thirteen

Aurora, Illinois 60505-1512

708-851-9977

Landscape  
Architecture

Golf Course  
Architecture

Land Planning



**VERTI-DRAIN®**

The Ultimate Solution For Compacted Soil

**Mechanical Soil Technology**

— Contract Aeration Service —  
Serving The Entire Midwest

David Strang  
Ph. (800) 743-2419

442 Pine St.  
Galesburg, IL 61401

(Trees of Chicago Golf Courses cont'd.)

### Golf Course Tree Inventories

For the past several years we have served as consultants to many golf courses in the midwest. We have conducted 18 in-depth species composition and tree health assessment studies for Chicago area courses. Each of these inventories has assisted the superintendents and green committees to make well-informed decisions in the management and future needs of the trees on their golf course.

When studying the inventory, a lot of interesting information is presented and new insights are gained. In the following tables, the species composition information gained in the 18 inventories has been compiled. Over 39,000 trees, representing 160 species have been inventoried on 18 area golf courses. Green ash is the most common tree with 3721 specimens. In Table #1, the ten most common tree species are ranked for their occurrence in the 18 inventoried golf courses. And in Table #2, the number of courses that have these ten species and the frequency range of courses occurrence is listed. In Table #3, a summary of the inventoried trees species is presented. The trees are listed and grouped in their order of frequency in which they occurred.

### The Ten Most Common Species

The following discussion regarding the ten most common species reveals some interesting information. The general health of the individual group, as well as problems and recommendation are also given.

#### The Top Ten Most Common Trees (Listed in order of their frequency)

##### 1. Green ash (*Fraxinus pennsylvanica*)

The majority of these trees are young and have been planted by the golf course superintendent. Green ash is native to the area and is usually found in bottomland areas. It tolerates wet soils better than most trees. A newly recognized disease, Ash Yellows, is becoming more serious and should be considered in the future. For this reason, it is recommended to not over-use this and other ash species and selections.

##### 2. Norway maple (*Acer platanoides*)

This is an introduced species, native throughout Europe. It generally grows well in the midwest. Seedlings can be invasive and weedy in natural areas. The purple-leaved cultivars, 'Schwedleri', 'Crimson King', and others are considered to have slightly shorter lives than the green foliated forms. This species is quite susceptible to Verticillium Wilt and prone to the development of girdling roots.

##### 3. Silver maple (*Acer saccharinum*)

This is a native tree, and like green ash grows well in bottomlands and poorly drained soils. A major problem is breakage of limbs in storms and an inability to confine decay fungi. Wounds can lead to hollow trees. Proper periodic pruning when young helps develop better branch patterns which helps reduce breakage in storms.

##### 4. Bur oak (*Quercus macrocarpa*)

This species is one of the most abundant hardwoods in the Chicago area. However, the vast majority are mature, and a relatively high proportion are beginning to decline. Under current management practices it is not regenerating naturally and is rarely being planted. Bur oak may not be part of the domi-

nant large tree composite if a conscious effort is not made to begin replanting this species. It transplants fairly well when moved in the spring as a small specimen, less than 2½" in caliber. Large plants, greater than 3" in caliber, are more difficult to successfully establish and are not readily available. To prevent borers from attacking and damaging newly planted specimens when planting in areas with older oaks, Dursban (chlorpyrifos) applications in mid-May, mid-June, mid-July are recommended. Continue for three years or until the new trees are well established.

##### 5. Crabapples (*Malus cultivars*)

This is the most common ornamental flowering tree. These small trees are urban-tolerant and grow well in the Chicago area. Many of the good selections are readily available from local nurseries. Most crabapples produce attractive flowers, but they can vary significantly in the ornamental value of their fruit and their disease resistance. Unfortunately, many golf courses have a high proportion of older, undesirable cultivars. Many of these selections are susceptible to scab, causing premature defoliation and/or have messy fruit. When choosing to plant new crabapples, select only those kinds which are disease resistant and possess a colorful display of small-size fruit in the autumn. Many Chicago-area nurseries offer plants that have been produced on their own roots; this significantly reduces the labor intensive task of removing the basal suckers.

##### 6. Honeylocust (*Gleditsia triacanthos*)

Although this species is native near the Chicago area, thornless (variety *inermis*), non-fruiting selections are most frequently planted. Because of over planting, pests and diseases are becoming a more significant problem with this species. When stressed, it can be attacked by mites, borers, and canker fungi. Considerable dieback was observed in 1990 and 1991 and believed to be caused by the drought of 1988.

##### 7. Sugar Maple (*Acer saccharum*)

This species is a rather uncommon native in the area. Most specimens are believed to have been planted and are not naturally occurring. Medinah Course 3 and Joliet Country Club are the only locations where a remnant natural population was observed. This species should be more widely planted. It needs to be sited on well-drained soil.

##### 8. White Oak (*Quercus alba*)

This is a native tree that occurs naturally in upland areas. Most of the specimens are mature, a high proportion are beginning to decline. Under current management practices it is not regenerating itself and will likely become a less dominant part of the forest groves in the rough areas. It is difficult to transplant, and is therefore not commonly available from local nurseries.

##### 9. American Elm (*Ulmus americana*)

This species is best known for the picturesque arching form exhibited by mature trees. It is also a fast growing tree that is tolerant of adverse soil conditions. Unfortunately, it is susceptible to Dutch Elm Disease (DED) and is no longer planted for that reason.

Despite the loss of most specimens, there are several attractive and functional specimens throughout the Chicago area golf courses. Many trees are considered to be key or strategic on the hole they are placed. The threat of Dutch Elm Disease is

(cont'd. page 22)

(Trees of Chicago Golf Courses cont'd.)

constant; important specimens should be monitored every two weeks during May, June, and July for the presence of the disease. If observed and acted-upon early enough trees can be saved. Consider injecting those trees that are key to the golf course with Arbortect fungicide to prevent loss from DED.

10. Red Oak (*Quercus rubra*)

This native species and pin oak (not one of the top ten) are the most commonly transplanted oak species. A significant portion of the inventoried trees are young. To establish successfully, trees should be sited in a well-drained location. Frequently new plantings fail because of plants being sited in location with poor drainage. Dursban pesticide application in mid-May, mid-June, mid-July, are recommended when planting in areas with older oaks until the plants are well-established.

**TABLE 3. TREES OF CHICAGO AREA GOLF COURSES,** — Listed in order of their frequency

Over 39,000 trees, representing 160 species were inventoried on the 18 golf courses. The trees are listed and grouped in their order of frequency in which they occurred. Those species that are [bracketed] are frequently not recommended for continued planting because of disease, insect, weediness, or culturally-related concerns. The growing conditions, such as pH of both the soil and irrigation water, and soil texture need to be considered before a list of appropriate plant choices can be generated.

COMMON NAME	SCIENTIFIC NAME
<b>Over 3000 specimens</b>	
Green Ash	<i>Fraxinus pennsylvanica</i>
<b>Between 3000 and 2001 specimens</b>	
Norway Maple	<i>Acer platanoides</i>
Silver Maple	<i>Acer saccharinum</i>
<b>Between 2000 and 1001 specimens</b>	
Bur Oak	<i>Quercus macrocarpa</i>
Crabapple	<i>Malus cultivars</i>
Honeylocust	<i>Gleditsia triacanthos v. inermis</i>
Sugar Maple	<i>Acer saccharum</i>
White Oak	<i>Quercus alba</i>
American Elm	<i>Ulmus americana</i>
Red Oak	<i>Quercus rubra</i>
Colorado Spruce	<i>Picea pungens</i>
Weeping Willow	<i>Salix alba 'Tristis'</i>
<b>Between 1000 and 751 specimens</b>	
Austrian Pine	<i>Pinus nigra</i>
[Scots Pine]	<i>Pinus sylvestris</i>
[Red Maple]	<i>Acer rubrum</i>
[Downy Hawthorn]	<i>Crataegus mollis</i>
Cottonwood	<i>Populus deltoides</i>
[Siberian Elm]	<i>Ulmus pumila</i>
White Ash	<i>Fraxinus americana</i>
Basswood	<i>Tilia americana</i>
<b>Between 750 and 501 specimens</b>	
[Pin Oak]	<i>Quercus palustris</i>
Shagbark Hickory	<i>Carya ovata</i>
Black Cherry	<i>Prunus serotina</i>
Hackberry	<i>Celtis occidentalis</i>
[Mulberry]	<i>Morus rubra</i>
White Pine	<i>Pinus strobus</i>
<b>Between 500 and 251 specimens</b>	
[Common Buckthorn]	<i>Rhamnus cathartica</i>

Littleleaf Linden  
Sycamore  
Arborvitae  
[Apple]  
Black Locust  
Norway Spruce  
*Tilia cordata*  
*Platanus occidentalis*  
*Thuja occidentalis*  
*Malus cultivars*  
*Robinia pseudoacacia*  
*Picea abies*

**Between 250 and 101 specimens**

[Boxelder]  
Black Walnut  
Douglas Fir  
Amur Maple  
Cockspur Hawthorn  
[Black Willow]  
[Red Pine]  
Swamp White Oak  
Northern Catalpa  
Washington Hawthorn  
[European Ash]  
[Russian-olive]  
Chinese Juniper  
[White Poplar]  
White Spruce  
River Birch  
Hophornbeam  
Callery Pear  
Eastern Redcedar  
[Dotted Hawthorn]  
Kentucky Coffeetree  
*Acer negundo*  
*Juglans nigra*  
*Pseudotsuga menziesii*  
*Acer ginnala*  
*Crataegus crus-galli*  
*Salix nigra*  
*Pinus resinosa*  
*Quercus bicolor*  
*Catalpa speciosa*  
*Crataegus phaenophyrum*  
*Fraxinus excelsior*  
*Elaeagnus angustifolia*  
*Juniperus chinensis*  
*Populus alba*  
*Picea glauca*  
*Betula nigra*  
*Ostrya virginiana*  
*Pyrus calleryana cultivars*  
*Juniperus virginiana*  
*Crataegus punctata*  
*Gymnocladus dioicus*

**Between 100 and 51 specimens**

Northern Pin Oak  
Staghorn Sumac  
[Bolleana Poplar]  
[Red Elm]  
Redbud  
Bald Cypress  
Osage-orange  
[Purple-leaf Plum]  
Serviceberry species  
*Quercus ellipsoidalis*  
*Rhus typhina*  
*Populus alba 'Pyramidalis'*  
*Ulmus rubra*  
*Cercis canadensis*  
*Taxodium distichum*  
*Maclura pomifera*  
*Prunus cerasifera 'Newport'*  
*Amelanchier*  
(species or hybrid not determined)  
*Alnus glutinosa*  
*Aesculus hippocastanum*  
*Ginkgo biloba*  
*Betula papyrifera*  
*Betula pendula*

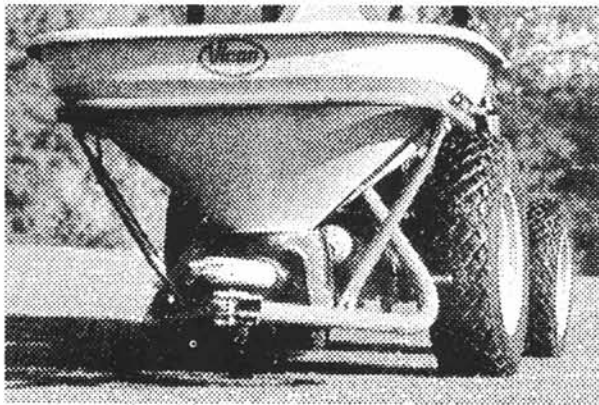
**Between 50 and 26 specimens**

Ohio Buckeye  
[Corkscrew Willow]  
Freeman Maple  
Bitternut Hickory  
European Beech  
[Common Pear]  
Tuliptree  
Yew  
Winter King Hawthorn  
Concolor Fir  
Japanese Tree Lilac  
Hemlock  
Sweetgum  
*Aesculus glabra*  
*Salix matsudana ?? 'Tortuosa'*  
*Acer x freemanii*  
*Carya cordiformis*  
*Fagus sylvatica*  
*Pyrus communis cultivar*  
*Liriodendron tulipifera*  
*Taxus cuspidata*  
*Crataegus viridis 'Winter King'*  
*Abies concolor*  
*Syringa reticulata*  
*Tsuga canadensis*  
*Liquidambar styraciflua*

**Between 50 and 26 specimens**

Saucer Magnolia  
Nannyberry Viburnum  
Black Oak  
[Butternut]  
[Mountain-ash]  
*Magnolia x soulangiana*  
*Viburnum lentago*  
*Quercus velutina*  
*Juglans cinerea*  
*Sorbus aucuparia*  
(cont'd. page 24)

# Special Low Pricing on Vicon Seeder Spreaders!



**25% OFF ALL MODELS IN STOCK**  
The accurate, versatile, reliable spreaders available in  
sizes from 400 - 3,600 lbs.

**HUBER RANCH POWER EQUIP., INC.**  
Box 188, Schneider, IN 46376  
**1-800-553-0552 or (219)552-0552**



**WILBUR-ELLIS**

IDEAS TO GROW WITH®

## **YOUR ENVIRONMENTAL COMPLIANCE COMPANY**

### **WE DELIVER SERVICE.....**

...CUSTOM RINSATE PAD DESIGNS  
...WORKER RIGHT-TO-KNOW TRAINING  
...SARA TIER II REPORTING  
ASSISTANCE

### **WE ALSO DELIVER PRODUCTS.....**

.....A COMPLETE LINE OF TURF & ORNAMENTAL  
PLANT PROTECTANTS, PLANT NUTRIENTS,  
GRASS SEED, HERBICIDES, AND MORE!  
.....FAST FREE DELIVERY WITHIN 24 HOURS

**JOHN MEYER OR JOE WOLLNER**  
800-747-7400

(Trees of Chicago Golf Courses cont'd.)

[Chokecherry]  
Mugo Pine

**Less than 25 specimens**

[Lombardy Poplar]  
Jack Pine  
Yellow Buckeye  
Cornelian-cherry  
Black Haw Viburnum  
Katsuratree  
Tall Hedge  
[Cherry]  
Ponderosa Pine  
[Plum]  
Amur Corktree  
[Tree of Heaven]  
English Elm  
[Cistena Plum]  
[European Birdcherry]  
Blue Ash  
Hybrid Poplar  
[Peach]  
Lavalle Hawthorn  
Quaking Hawthorn  
[Pussy Willow]  
European Larch  
Pagoda Dogwood  
Shubert Cherry  
English Oak  
Hedge Maple  
Star Magnolia  
American Plum  
[Prunus species]  
[Hawthorn species]  
Black Gum  
Jap. Sawara Cypress  
American Smoketree  
Whitespire Birch  
[English Hawthorn]  
Spindletree  
Apricot  
Chinese Chestnut  
Yellowwood  
Fringetree  
Turkish Filbert  
[Sweetbay Magnolia]  
European Smokebush  
Alder species  
[Balsam Fir]  
Chinese Tree Lilac  
Swiss Stone Pine  
Japanese Pagodatree  
European Hornbeam  
Viburnum species  
Chinkapin Oak  
Ironwood  
[Gray Birch]  
Sugarberry  
Black Maple  
[Camperdown Elm]  
Common Witchhazel  
Dawn Redwood  
Carolina Silverbell  
Shingle Oak

Prunus virginiana  
Pinus mugo

Populus nigra 'Italica'  
Pinus banksiana  
Aesculus flava (octandra)  
Cornus mas  
Viburnum prunifolium  
Cercidiphyllum japonicum  
Rhamnus frangula  
Prunus cultivar  
Pinus ponderosa  
Prunus domestica cultivar  
Phellodendron amurense  
Ailanthus altissima  
Ulmus procera  
Prunus x cistena  
Prunus padus  
Fraxinus quadrangulata  
Populus hybrid  
Prunus persica cultivar  
Crataegus x lavellii  
Populus tremuloides  
Salix caprea  
Larix decidua  
Cornus alternifolia  
Prunus virginiana 'Shubert'  
Quercus robur  
Acer campestre  
Magnolia stellata  
Prunus americana  
Prunus (species not determined)  
Crataegus (species not determined)  
Liquidambar styraciflua  
Chamaecyparis pisifera  
Cotinus obovatus  
Betula 'Whitespire'  
Crataegus oxycantha  
Euonymus europeus  
Prunus armeniaca v. mandshurica  
Castanea mollissima  
Cladrastis lutea (kentukea)  
Chionanthus virginicus  
Corylus colurna  
Magnolia virginiana  
Cotinus coggyria  
Alnus (species not determined)  
Abies balsamea  
Syringa pekinensis  
Pinus cembra  
Sophora japonica  
Carpinus betulus  
Viburnum (species not determined)  
Quercus muhlenbergii  
Carpinus virginiana  
Betula populifolia  
Celtis laevigata  
Acer nigrum  
Ulmus glabra 'Camperdown'  
Hamamelis virginiana  
Metasequoia glyptostroboides  
Halesia carolina  
Quercus imbricaria  
(cont'd. page 26)

(Trees of Chicago Golf Courses cont'd.)

- |                     |                                |
|---------------------|--------------------------------|
| [Japanese Maple]    | Acer palmatum                  |
| European Filbert    | Corylus avellana               |
| [American Chestnut] | Castanea dentata               |
| [Persian Walnut]    | Juglans regia                  |
| [Whitebeam]         | Sorbus intermedia              |
| Wafer-ash           | Ptelea trifoliata              |
| Golden Raintree     | Koelreutaria paniculata        |
| Limber Pine         | Pinus flexilis                 |
| London Planetree    | Platanus x acerifolia          |
| Japanese Zelkova    | Zelkova serrata                |
| Silver Linden       | Tilia tomentosa                |
| Oriental Arborvitae | Thuja orientalis               |
| Black Ash           | Fraxinus nigra                 |
| Laurel Willow       | Salix pentandra                |
| Willow species      | Salix (species not determined) |

## “Notes on the Special By-Law Meeting”

by A. T. Fierst, Sec’y.-Treas., MAGCS

The GCSAA By-Laws Forum, sponsored by the MAGCS, for discussion and analysis of the proposed GCSAA by-law changes was convened Wednesday 4 November at the Oak Brook Hills Resort. The forum was specifically presented to focus on the details of the GCSAA By-laws issues and proposals.

MAGCS President Raymond M. Schmitz, CGCS, presided over the forum and set the tone for the gathering. GCSAA Director Bruce R. Williams, CGCS, opened the meeting with a brief but complete review of the intent of the GCSAA by-laws proposals and their position toward the future management of GCSAA and long term operations of the Association. The presentation began with a narration, by Bruce Williams, and a slide series review of the GCSAA by-law changes and proposals. The slides continued with a review of the present status of GCSAA and the association’s place in today’s business climate. The business climate segment of the slide presentation was augmented with details of the needs and necessary advances in the business of managing the Association. The slide series closed with a call for the GCSAA membership to act on the by-law proposals before the window of opportunity closes and GCSAA loses the opportunity to develop a unique segment of the golf market. A brief period followed with the attendees questioning GCSAA Director Williams on details of the slide presentation.

The slides were followed by an overhead projection presentation of the individual by-law proposals. As GCSAA Director Williams proceeded, point by point, through the individual by-laws, the MAGCS members in attendance queried him about details and nuances of the particular by-law proposal. Bruce Williams was aided with a few by-laws details and some long term background information by GCSAA President William R. Roberts, CGCS, who was also in attendance.

After nearly two and one half hours of presentation and discussion, the forum concluded. The discussion of the by-laws proposals and issues was pointedly thorough, lively, polite, educated and informative. The twenty one MAGCS members in attendance were privileged to a well presented and thorough briefing of the by-laws issues and their factors facing the membership of GCSAA.

### PEERLESS FENCE CO.

3N381 Powis Rd.  
West Chicago, IL

- Chain-Link Fencing
- Wood Fencing
- Special Gates
- Driving Range Fencing
- Tee Protection Fencing
- Wood & Steel Guard-Rails
- Golf Course Work Our Specialty

708/584-7710

Hal Laman

### NATIONAL CHEMSEARCH CORP.

Russel Fishman  
(708) 432-3588



National  
Arborist  
Association

(708) 531-1181

## WINKLER'S TREE & LANDSCAPING, INC.

“REDUCED WINTER RATES”

Vince Winkler  
Certified Arborist

1241 Morgan  
LaGrange Park, IL 60525

## Reach, Speed & Stability



Ford New Holland "Super Boom" skid-steer loaders do more for you:

- \* Reach - Loads center of six-wheel dump.
- \* Speed - Faster cycle times, speeds up loading/unloading operations.
- \* Stability - Longer wheelbase with low center of gravity.

MARTIN IMPLEMENT SALES, INC.  
16400 S. 104th Ave.  
Orland Park, IL 60462  
(708) 349-8430

