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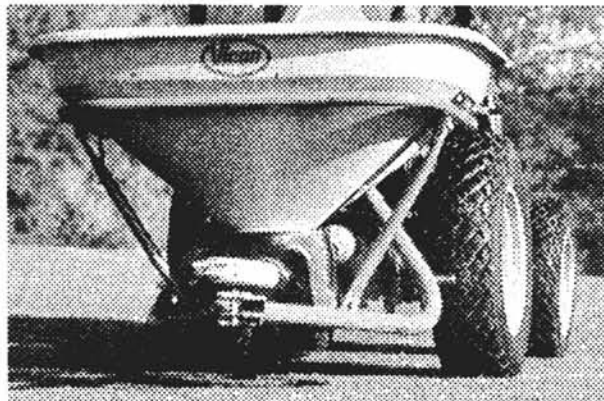
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("Wash Water Containment" continued)

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b) The curbing and a sump system can be used to help achieve the volume required above. However the sump is only to be a transfer device, therefore, an above ground storage system would be needed to hold the washwater, rinsates, and the rainfall. This system may or may not be portable.

Class C — This class is to be designed for application devices greater than 100 gallons and 100 pounds. They need to be 1.25 times the length and width of the application device. A minimum of 120 gallons or 120% of the largest applicator volume is required. Rainfall requirements of Class B must also be met. The curbing and sump area may suffice for the volume requirements and this system is likely to be nonportable.

There is also a provision for two other special classes. They are experimental and other. The experimental class would allow for the development of any devices that would be considered to facilitate the improvement of containment technology. Experimental permits would not exceed 2 years. The other category would be a catchall type permit for special circumstances.

At this time concrete is considered the material to use in the construction of the permanent type facilities. If synthetic materials are being considered one must be certain that they are compatible with various compounds being used. The safest approach would be to get prior approval from the IDOA before purchasing such a device. The use of portable materials will require a very intense repair and maintenance schedule and manufacturers life expectancy guidelines kept on file.

Information relating to the construction of the above facilities can be attained from a book published by the Midwest Plan Service and available from the Agricultural Engineering Department at the University of Illinois. Ask for MWPS-37, *Designing Facilities for Pesticide and Fertilizer Containment*. Contact Bob Wolf at 1304 W. Pennsylvania Ave., Urbana, IL 61801 or by phone at 217/333-9418. The book sells for \$15.00.

Further information regarding the permitting process is available from the Illinois Department of Agriculture by contacting Gerald Kirbach at 217/785-0780.

A future article will concentrate on strategies for construction and the management and operations of washwater and rinsate collection devices.

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**Kenneth R. Zanzig**

# Ornamental Grasses — Versatile Plants

by Tim Scott, Asst. Supt.  
Lake Shore Country Club

Not long ago, one would expect to see ornamental grasses grown primarily in the southern states, arid regions or in exotic gardens. Today, grasses have gained popularity with golf course superintendents in the entire United States for a variety of reasons and cost factors. Ornamental grasses grow faster, require less maintenance and are more tolerant to diseases, insect infestations and drought when compared to ornamental shrubs.

Grasses are no longer used mainly as grass islands in bunkers, but have gained a wider variety of uses by today's superintendents. Examples where these grasses can and have been used include:

- 1) Hard to maintain areas/wet areas
- 2) As natural boundaries or fences
- 3) Providing definition to an area
- 4) Hiding unsightly areas or objects
- 5) Groundcover
- 6) Ornamental gardens
- 7) To expose the membership to different plant varieties
- 8) Aesthetics

In the Chicago area, I have had the opportunity to view different and aesthetic uses for ornamental grass. An outstanding private course on the north side has used a dwarf type fountain grass between incoming and outgoing traffic at the entrance to their club, providing a simple but natural looking barrier. Also, another progressive superintendent has experimented with a wide variety of ornamentals to produce a very picturesque ornamental bed that can be viewed from the clubhouse area. I have also seen other superintendents employ ornamental grasses along edges of ponds, giving a more natural appearance. At Lake Shore Country Club, we use the variety '*Pennisetum alopecuroides*' that grows to a height of three to four feet, as a backdrop to our driving range tee. It also serves as a well defined boundary, as that provides depth to the rear of the tee. There are, of course, additional uses for these plants and many other clubs have utilized them with excellent results.

Ornamental grasses, like their name implies, are primarily used for ornamental purposes. They are categorized mainly as annuals or perennials. Annuals complete a life cycle in one year or season. Perennials live and grow for more than two seasons, can be long-lived, living for decades. Some that are considered perennial in one climate, are annuals in other climates. '*Pennisetum setaceum*', for example, is a perennial grass in southern California, but in northern zones, is used as an annual grass.

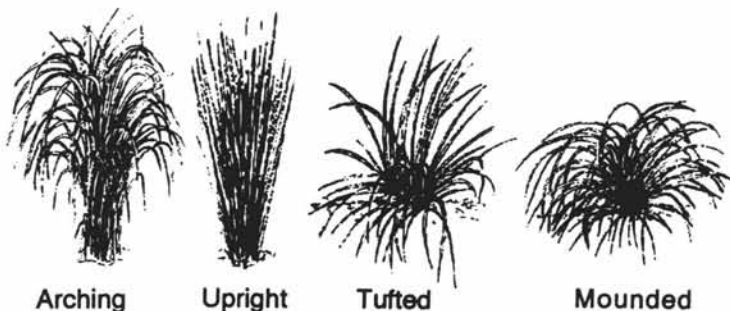
There are two growth habits to these grasses:

- 1) Running
- 2) Clumping

Running grasses are named because of their rhizomes/stolons and the ability to spread or creep. Many of these grasses can become invasive, therefore, it is best to choose the proper plant for the proper area.

Clumping grasses grow in tufts or bunches. They can vary from small two inch mounds to large plants such as pampas grass.

Ornamental grasses come in many forms. There are four general categories used to define these shapes: tufted, mounded, upright and arching.



When deciding to use ornamental grasses on your golf course or landscape, it is important to be aware of these guidelines to simplify the process. First, choose a grass that is right for your climate. Usually, all ornamental books will provide a plant hardiness zone map and may include specific local conditions. The USDA categorizes the Chicago area and northern two-thirds of Illinois as zone 5, with an annual minimum temperature of minus 10 to 20 degrees F.

Secondly, the grass should fit in the landscape design — with the correct size, shape and color. Make sure the plant blends in or complements the other plants. It is best that it doesn't overpower the rest of the design. Additionally, consider the growth habit of the grass plant. If it is a runner with invasive tendencies, be sure to confine it with physical barriers or borders. Also, know the shape of the grass. Is it tufted, mounded, upright or arching? You don't want it plant pampas grass near a walkway, where it may eventually block the walkway.

The following is a small list of ornamental grasses that are suited for zone 5. There are many varieties with several shapes, sizes and colors that can add beauty to a landscape. Check with your local nursery about ornamental grasses or you can purchase from mail-order sources.

- A. *Miscanthus sinensis* 'Gracillimus' — Maidengrass, 5-6 ft., arching form
- B. *Miscanthus sinensis* 'Silberfeder' — Silver feather maiden-grass, 5-6 ft., arching form
- C. *Miscanthus oligostachys* — Small Japanese silver grass, 3-4 ft., showy flowers
- D. *Pennisetum alopecuroides* — Fountain grass, 2-3 ft., tolerates light shade
- E. *Pennisetum alopecuroides* 'Moundry' — Black flowering pennisetum, 18-26 inches, mounded form
- F. *Agropyron magellanicum* — Blue wheat grass, 1-1.5 ft., mounded form
- G. *Calamagrostis acutiflora* — Feather reed grass, 2-4 ft., arching form
- H. *Cortaderia selloana* 'Pumila' — Dwarf pampas grass, 4-6 ft.
- I. *Erianthus ravennae* — Blue grass, hardy pampas grass, 4-5 ft. and as wide, excellent along water.
- J. *Festuca cinerea* — Blue fescue, sheep's fescue, 4-18 inches in tufts, many varieties
- K. *Glyceria maxima* — Variegated manna grass, 2-4 ft., grows well in moist soil or shallow water in full sun
- L. *Imperata cylindrica* — Japanese bloodgrass, 1-1.5 ft., prefers moist soil, can become an aggressive spreader

Credit: The Encyclopedia of Ornamental Grasses,  
John Greenlee



("Certification" continued)

**Public Involvement** — A Cooperative Sanctuary Committee must be formed. Members of the committee must be listed, and on file with New York Audubon. The committee must include at least one person outside of the regular members of the golf club.

**Integrated Pest Management** — An integrated pest management plan must be written and on file with New York Audubon. This plan should include the use of turf management "scouting" and application of minimum amounts of pesticide, fungicide and insecticide products. The plan should include planned use of insect eating birds, bats or other biological controls as part of the management strategy.

**Wildlife Cover Enhancement** — A written plan to provide adequate "cover" for a variety of wildlife species should be on file with New York Audubon. This plan should include the use of nesting boxes, native or naturalized vegetation, understory enhancement in woodlot areas and so forth.

**Wildlife Food Enhancement** — A written plan to provide adequate food sources for a variety of wildlife species must be on file with New York Audubon. This plan can include the use of bird feeders, native or naturalized plants that provide food sources for wildlife species such as song birds.

**Water Conservation** — A written plan that describes the efforts of reducing the amount of water utilized to maintain the course must be on file with New York Audubon. This could include the use of conservation technology in the irrigation system, rain water utilization and recycling and so forth. This could also include the use of drought tolerant grass species.

**Water enhancement** — A written plan that describes efforts at actually documenting the present quality of water on the course, and efforts to enhance water quality for various wildlife species, such as fish, amphibians, birds and so forth must be on file with New York Audubon. This could include participation in the Water Watch Program.

A course that registers in the Cooperative Sanctuary System can apply for Certification in any or all of these categories at any time, provided they believe they are already managing efforts as described above, and document that in writing to New York Audubon. Each course will receive a Certificate of Registration upon joining the System. This Certificate will be valid for one year. A separate Certificate for each of the above categories will be supplied to the course, once the category is properly developed, and implemented. The Certification certificates will be valid until it is shown, either through site visits or other information that one or more categories are no longer being maintained by the course management. Request for certification in any or all of the present categories can be made on the Certification Request forms, supplied by New York Audubon, and attaching any additional supporting information.

### Membership Questionnaire is Helping to Strengthen the Program


Along with member renewal notices, we've included a questionnaire to help us learn more about the types of projects that are taking place on golf course sanctuaries. This type of information not only helps us to keep up with what's happening on individual golf courses, it will also help us to develop program materials and promote the efforts of golf courses involved in the program. Based on the 70 questionnaires we've received to date, here's a look at what's happening in the field:

(continued on page 20)



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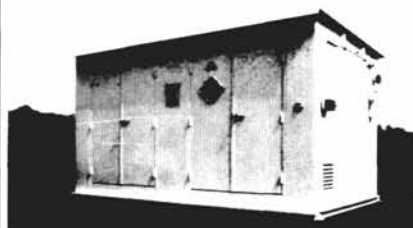
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## Super & Site Profile

by Don Cross, CGCS  
Public Relations Committee

It's time to get out your sticks, dust the cobwebs off, and join in the fun and camaraderie of another year of MAGCS monthly golf meetings. This month's meeting will be April 26, 1993 at Geneva Golf Club and our host will be Ed Braunsky.

### SUPER

Ed is currently in his 13th year of employment at the private Geneva Golf Club. A protege' of the beloved Albie Staudt, Ed was his assistant for 4 years before becoming the superintendent 7 years ago. Ed's experience before Geneva was working on the grounds staff at Prestbury Golf Club, when his father, a superintendent for over 20 years, was the superintendent. At one point in time there were three active superintendents in his family: Ed, his brother Ron, and his father.

The Braunsky household, residing in Batavia, includes Ed's wife Sue, his 5 year old son Benjamin, and a 1 year old daughter Emily. This keeps his free time to a minimum when he is not on the course.

Ed received his formal education at Joliet Junior College where he graduated with a two year degree in Turfgrass Management. He attended Joliet while working at Geneva Golf Club. He has been active for the past 3 years on the Board of Directors of the MAGCS, serving on, and chairing, several committees.

In discussing this article with Ed, I found a man who truly enjoys his profession, is very happy at his club, and plans to stay for a long time. Remarkably, Ed is only the 3rd full time employee in the 93 year history of Geneva Golf Club. (see the news clip below). So if history holds true, he's very likely to get his wish. His club is quite unique in that it is literally a "hands on" club with members doing much of the work. From setting tables and serving meals to tending bar, every one of the clubs 165 members serves at some time or another and all seem to enjoy it.

### SITE

*"The Geneva Links are said to be the finest of any small field in the state, nearest to a station"* — The Twice-a-Week Republican, March 8, 1907.

Geneva Golf Club was founded in 1900 and today is one of the oldest 9-hole clubs in the country. The course measures 2700 yards with Par 34 for 9, Par 68 for 18. The Course Rating is 68.8 and the Slope is 130. Course characteristics include "postage stamp" greens and narrow fairways and if that's not enough to make things interesting, the second and third holes are the only two without a water hazard.

In 1986, after playing a relatively unchanged course (architecturally speaking) since being founded, the membership felt it was time for a "new look". Dick Nugent was hired to design a Master Plan and over the following few years numerous changes were made.

With help from Bill Boyd of Timberline, as the primary contractor, Ed supervised the rebuilding and/or resurfacing of most of the tees, several bunker renovations, and new berm installations. The Master Plan is now near completion and the club was quite pleased with the results. Additional beautification programs, implemented at about the same time as the Master Plan include pond improvements, flower bed installations, and a continuing memorial tree planting program.

(continued on page 28)

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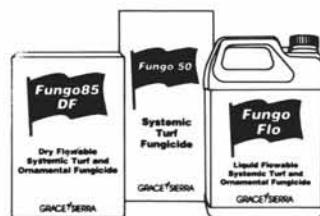
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("Super & Site Profile" continued)

Ed has been a busy man over the past several years and all who play at the April meeting are sure to find an enjoyable and challenging course at Geneva Golf Club.



During the 90 years of the Club's existence  
... there have been only 3 full-time employees!

Because committees made up of members do much of the work, the Club has never had full-time cooks, waitresses or bar tenders.

Setting tables, arranging flowers, serving meals buffet-style, tending bar,

and handling financial matters are all performed by whatever Club members happen to be serving on the committee for any social activity. Every member serves at some time or other. And all seem to enjoy it.

No. 1  
Frank Mastroleo:



Frank was the first full-time employee the Club ever had. He started in 1922 and stayed until he retired in 1960. Frank could do anything. For starters he was in charge of grooming the course itself, keeping the clubhouse spic and span and managing the golf pro shop. In spare moments he used his "green thumb" to enhance the clubhouse grounds with lush flowers and shrubs. He even taught children how to swing a club. Indeed for nearly 40 years Frank was considered a member of the Geneva Golf Club family.

No. 2  
Albie Staudt:



Albie inherited all of Frank's duties and added a few more over the years. Since his arrival in 1959 Albie has given his strength, know-how and good cheer to all the daily problems and seasonal functions of the Club. He has shared his family with us... wife Bertha, daughter Rosalie, her husband John and children, in laws, brothers and cousins. He has even found time to serve as President of the Midwest Course Superintendents Association... and to become a grandfather. Possessor of a remarkable memory, Albie knew every member... including member's children and even some grandchildren by name.

On his retirement in the Fall of '89, Albie and his family were given a well-deserved farewell dinner by Club members. The event which included speeches, toasts and gifts was even covered with words and pictures in the local press. To know Albie was to love him.

No. 3  
Edward G. Braunsky, Jr.



And now there's Eddie... Edward G. Braunsky, Jr. to be precise. Ed started his association with Geneva Golf Club on November 1, 1981.

It is sometimes difficult to locate Ed because he seldom stays in one spot very long. He's here, there, everywhere... all in the space of a few minutes. Even going from his truck to a sprinkler, he doesn't walk. He runs.

Ed is married and has a 3-year-old son. He also has a 2-year degree from Joliet Junior College on "Turf Grass Management." And yes, he plays golf and likes it.

Incidentally, if you should call the maintenance shop at the Club and Ed is not there, you'll get a recorded message that starts out... "hi, this is Ed Braunsky at the Geneva Golf Club. We're always in the fairway, never in the rough...". That seems to sum everything up.

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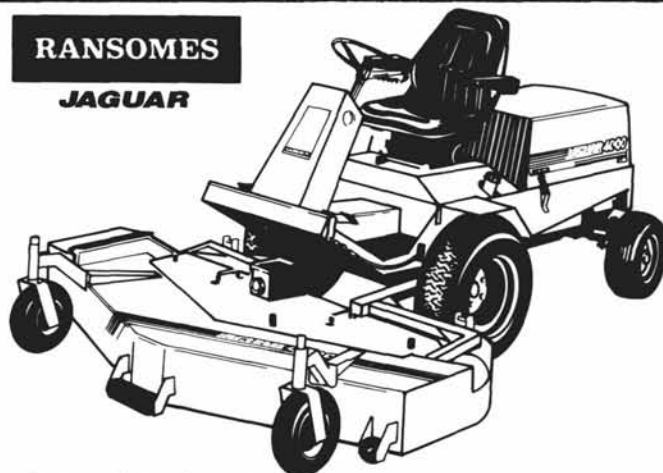
STATE	DAILY FEE*		MUNICIPAL		PRIVATE		TOTAL	
	Number	Rank	Number	Rank	Number	Rank	Number	Rank
Alabama	78	27	33	T-28	115	18	226	25
Alaska	10	49	3	T-47	1	51	14	50
Arizona	139	T-16	34	27	71	29	244	21
Arkansas	50	36	15	41	90	T-23	155	32
California	379	6	178	1	304	3	861	2
Colorado	70	30	71	9	53	33	194	26
Connecticut	55	33	35	26	79	26	169	29
Delaware	6	50	2	50	21	40	29	49
District of Columbia	1	51	3	T-47	2	50	6	51
Florida	492	2	100	5	460	1	1,052	1
Georgia	139	T-16	42	T-20	151	9	332	18
Hawaii	52	T-34	8	45	19	43	79	44
Idaho	44	39	27	34	14	T-45	85	41
Illinois	260	T-9	160	3	293	6	623	8
Indiana	235	12	65	11	101	20	401	12
Iowa	193	14	54	14	121	T-14	368	13
Kansas	73	29	50	T-15	118	16	241	T-23
Kentucky	110	T-21	42	T-20	91	T-21	243	22
Louisiana	33	T-42	23	35	91	T-21	147	34
Maine	91	24	9	T-43	20	T-41	120	35
Maryland	45	38	30	30	90	T-23	165	31
Massachusetts	180	15	40	24	122	13	342	14
Michigan	545	1	85	T-7	149	10	779	4
Minnesota	256	11	85	T-7	74	28	415	11
Mississippi	52	T-34	13	42	89	25	154	33
Missouri	125	19	47	18	121	T-14	293	17
Montana	38	41	20	T-36	22	39	80	43
Nebraska	76	28	41	T-22	66	30	183	T-27
Nevada	31	44	20	T-36	10	48	61	45
New Hampshire	84	25	4	46	14	T-45	102	39
New Jersey	80	26	50	T-15	130	12	260	19
New Mexico	33	T-42	28	T-31	23	38	84	42
New York	406	4	121	4	257	4	784	3
North Carolina	272	8	33	T-28	186	8	491	9
North Dakota	28	45	46	19	30	T-36	104	38
Ohio	435	3	97	6	193	7	725	5
Oklahoma	62	32	62	12	59	31	183	T-27
Oregon	113	20	16	T-38	37	35	166	30
Pennsylvania	381	5	39	25	229	5	649	7
Rhode Island	25	47	3	T-47	20	T-41	48	48
South Carolina	210	13	9	T-43	117	17	336	15
South Dakota	43	40	28	T-31	42	34	113	37
Tennessee	95	23	41	T-22	105	19	241	T-23
Texas	260	T-9	162	2	336	2	758	5
Utah	26	46	49	17	17	44	92	40
Vermont	48	37	0	51	11	47	59	46
Virginia	110	T-21	28	T-31	134	11	272	18
Washington	132	18	55	13	58	32	245	20
West Virginia	89	31	16	T-38	30	T-36	115	36
Wisconsin	286	7	70	10	75	27	431	10
Wyoming	24	48	16	T-38	9	49	69	47
U.S. Totals	7,080		2,308		4,980		14,368	

\*Privately-owned but accessible to the public.

Source: NGF Golf Facilities in the U.S. / 1993 Edition

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# Leaves, Limbs, Needles & Boughs

by Fred Opperman



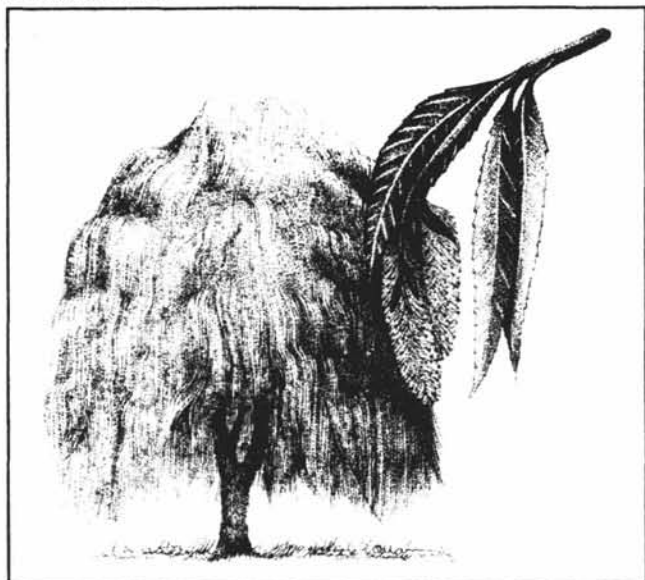
This month's tree is *Salix alba* — White willow, and it was highlighted on the back cover of "Outdoor Highlights," the Illinois Department of Conservation newsletter. I will use the article in its entirety. It is very interesting, and I hope you enjoy it.

Willows are a family of trees and shrubs that grow chiefly in the northern hemisphere's temperate zones, but can be found also in the arctic, the tropics and in alpine areas. Among the 170 to 200 varieties are species ranging from an inch or two high to some more than 100 feet tall. The average height is 20 to 30 feet.

About half of the known species grow in North America, many of them in Illinois. They thrive in moist soils beside lakes, ponds, marshes, drainage ditches and waterways.

While willows have been considered symbols of sorrow and grace historically, this tree is anything but. The wood is soft, fine grained and light, and has numerous uses. Products made from it include charcoal, barrels, cores for veneer, boxes, paper pulp, crates, some furniture, artificial limbs, coffins, baskets, wicker furniture and black powder. String and rope are manufactured from the tough outer bark. Tannin, for tanning leather, is obtained from the bitter inner bark.

Primitive peoples have chewed willow leaves and bark or applied them to injuries for relief of pain and fever since prehistoric times. In 1853, this "home remedy" led scientists to the discovery of aspirin, which was manufactured from the willow's leaves and bark.



Willow trees and shrubs also are popular for windbreaks, living fences, ornamental and shade tree plantings and to control stream bank, wind or gully erosion. One reason is they are easy to start. Woven willow mats placed on a riverbank, levee or earthen dam sometimes will take root and form a nearly impenetrable living shield against soil loss. Twigs falling on muddy stream banks frequently root and develop into new trees, and even sticks or poles stuck upright in a muddy riverbank can develop roots and begin growing.

(continued on page 30)

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("Willows" continued)

Rabbits, deer and beaver regard willow trees and shrubs as favorite winter foods. In the spring, many bird species feed on the buds, while honey bees swarm to its nectar-bearing flowers.

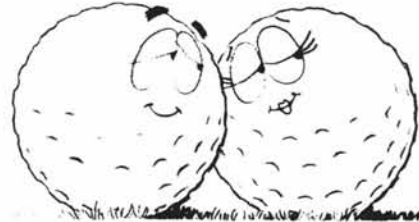
The willow's simple, alternate leaves may be extremely narrow and pointed or very broad, depending on the species. The leaves on most trees are 2 to 6 inches long. The flowers are tiny and grow in catkins — clusters around a central axis stem. Male and female flowers may grow on separate trees, on the same tree or within the same catkin. The bark generally is dark and rough or shaggy.

Willow seeds are miniscule and have tufts of tiny hairs by which they are carried long distances on the wind to suitable growing areas. However, unless they fall in a damp place within a few hours they will die.

Black willow, which may ascend to 120 feet and have a trunk diameter of 3 to 4 feet, is the willow species most used for lumber. Others common in Illinois are the crack and golden — or, white — willows (80 feet tall, trunk diameter of 4 feet), peachleaf and sandbar willows (70 feet), weeping willow (60 feet, 5 foot trunk diameter), shining and pussy willows (25 feet, 1 foot trunk diameter).

Among flowering plants, the willow is an ancient. Fossil evidence dates it back 70 to 160 million years. Because of the great distances their seeds can be carried by the wind, it is probable that they were the first woody plants to gain a foothold in Illinois after the glaciers melted and exposed the land.

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