

1988 Board of Directors

President	Mike Nass (Jean) Cantigny Links	Home: 462-1547 Office: 668-3730
Vice-Pres.	Dave Meyer (Penny) Indian Lakes C.C.	Home: 820-1040 Office: 529-0200
2nd Vice Pres.	Bruce Williams (Roxane) Bob O'Link G.C.	Home: 680-1074 Office: 432-0088
Sect'y.-Treas.	Roger Stewart (Sue) Riverside G.C.	Home: 961-2803 Office: 447-1049
Exec. Sec.	Penny Meyer (Dave) MAGCS (Mailing Address) P. O. Box 248, Eola, IL 60519	Office: 820-8181
Board	Alan Fierst Oak Park C.C.	Home: 456-7815 Office: 453-7525
	David E. Louttit Innsbrook C.C.	Home: 219-663-3830 Office: 219-980-3107
	Joel Purpur (Debbie) River Forest C.C.	Home: 377-9206 Office:
	Ray Schmitz (Jan) Flossmoor C.C.	Home: 815-469-2773 Office: 798-2498
	Dennis Wilson (Pat) Sunset Ridge C.C.	Home: 441-8387 Office: 446-5222
Pres. Emeritus	Jim Evans (Debby)	Home: 815-455-3994 Office: 815-459-8570

Official Photographer Raymond Schmitz

ECKHOFF AWARD

For Excellence In Golf Journalism



We are not copyrighted and would like to share our articles with any who would like to use them, but please give the author and "The Bull Sheet" credit.

Editor —

Fred D. Opperman, CGCS
1022 Shady Lane
Glen Ellyn, IL 60137
Phone (312) 469-3444

Bull Sheet printed by Ever-Redi Printing, 5100 East Ave., Countryside, IL 60525.

The **Bull Sheet** is published once a month. All articles are required by the 10th of the month to make the next issue. Advertising is sold by the column inch, by the quarter page, half page, and by the full page. All artwork to be finished and in black and white. Circulation is over 500 issues per month.



President's Message

It seems like just last week I was writing about the onslaught of winter and now, as you are reading this, Spring is just around the corner. As people return from vacation, thoughts turn towards getting psyched for a new golf season.

One thing our membership will probably notice as they attend the March or April meeting is a number of new faces at previously unheard of golf courses. Of course this is due to the boom in new course construction which is nationwide. Our employment committee makes every effort to contact these new courses in order to help them find a qualified superintendent. This is not always an easy task as a large portion of these new courses are being developed by huge housing speculators who have little interest in the golf course beyond it being a selling tool for their property. We will continue however, to make every effort to contact these developers to be able to list a job opening.

Active members will also notice a lot of familiar faces in new positions. This year has seen more job changes than any other year in recent memory. Traditionally the course superintendent's position has been the most stable of the three positions that make up the standard triumvirate of club management. I do not think that has changed but I for one think that a certain amount of change can be healthy for the organization as well as the individual. I wish all our relocated members the best of luck.

One of the things our education committee is looking into is the possibility of returning to the more traditional form of the Midwest Clinic. This would mean returning to a program that mainly utilized fellow superintendents as our speakers. It would also give us the opportunity to meet in a more relaxed setting without all the distractions inherent with a large expo.

This does not, in any way, mean that we are considering withdrawing our participation in the NCTE. On the contrary, we feel the NCTE provides us with a very important forum in which to promote ourselves and our organization. Our only thoughts are that we can be offering more in the way of educational opportunities for our membership.

Anyone who has any comments about this idea please feel free to contact me or our educational chairman, Joel Purpur. I look forward to seeing everyone on the golf course as soon as the weather breaks.

Director's Column



"Keeping Track"

by Alan T. Fierst

We are almost finished with another winter season of seminars, conferences, forums, clinics, and other educational gatherings sponsored by any number of golf-turf related organizations. These are wonderful opportunities to exchange ideas and information relative to the golf-turf business and the gatherings are usually very well supported by the sponsoring organizations membership. In addition to the accompanying trade shows, exhibits, and educational opportunities, each exposition usually includes at least one, if not several, presentation of donated monies for turf related research. The research grants are often of quite substantial amounts when compared to the financial resources of the donating organization and are not to be taken lightly.

As we are coming to realize, there are far too many areas of potential research at far too many institutions in need of funding. The state supported universities, the private foundations, the USGA, the GCSAA, and even the junior colleges are all seeking research dollars at every juncture. Each, in their own way, are deserving of every research dollar they seek and procure. But, as is nearly always the case, there is never sufficient funding to adequately supply the need.

As the need and demand for turf research funding increases, so should the accountability for the donated funding. This does not necessarily mean to "target or specify" where each dollar goes beforehand, but rather to be made aware of the benefit those donated research dollars bring. We as golf turf managers need to be cognizant of where and to where these dollars bring a return benefit.

Our clubs and club members also must be made aware of the necessitude of these research funding dollars. It doesn't hurt to mention the need and the benefit of club supported research funding to the Grounds Committee, the Golf Committee, and the Board of Directors at an individual club. Where these source dollars ultimately go (university, USGA, GCSAA, etc.) is not nearly so important as the fact that research dollars are being donated from a source that is so directly coupled to the game of golf. But funding sources such as these are normally accustomed to at least some rationalization for expenditures. A close, descriptive accounting of donated funding from such a source would figure to be imperative.

There is nothing wrong with asking the research funding recipients about research projects (current or otherwise), nor is there any need for reluctance in seeking project results. So long as the research institutions are seeking grants for continued project work, we as the potential funding source should monitor where the funding goes and how far. The research funding dollars are not "wanting for a home", it is our responsibility to monitor which "home" those research funds find.

Getting Started with Perennials

by Terri Tappen Zandi

Head Gardener, Ravisloe Country Club

Herbaceous perennials, plants which grow back from their own roots for several years, were very popular during the Victorian age both at large estates and in small cottage gardens. Although the popularity of Perennials has waned from this time, renewed interest in these plants has been shown in gardens and landscapes.

Most people are familiar with Peonies, Bearded Irises, Poppies, and Chrysanthemums. These perennials have remained popular, however, there are many other species in this category of plants that deserve a place in the garden. Because perennials come back year after year, they are not only cost efficient, but require less maintenance than annuals. Instead of buying new flowers every year, a perennial bed is already established and through division and other means of propagation, the stock of plants can be increased without any further cost.

With the renewed popularity of perennials, it has become much easier to obtain varieties of plants which perform well under many environmental conditions. In the midwest, it is not always advisable to use the same plants that are used on the east coast. (Most perennial gardening books are geared to eastern gardens). Many native and hybrid plants, which will flourish under our environmental conditions, are available. (See list of Low Maintenance, Easy to Grow Perennials).

The first concern, when establishing a perennial garden, is site selection. An area with full sun and good drainage is preferable, although there are many plants which thrive in partial shade and wet conditions. A source of irrigation is desirable, but avoid areas where sprinklers from tees or greens might overlap. Unless an island bed is desired, choose a good background for the garden such as shrub borders, buildings, or fences. Perennials can also be used in small groups as part of a woody landscape to add summer color when few shrubs are blooming.

After a site is chosen, consider the type of garden desired. On a golf course, a garden which blooms primarily from June through September is preferable. Choose plants with color and period of bloom that complement each other. In gardens viewed from afar, choose warm colors such as yellows and oranges. For gardens viewed up close, pastel colors might be preferable.

Another consideration is the amount of time available to maintain the garden. Some plants need to be divided yearly. Others are invasive. The use of low maintenance perennials, plants which are cold and heat hardy, disease resistant, bloom for long time periods, do not need staking, have low fertility requirements, and need infrequent division, reduce time and labor requirements.

Investigate and understand the plants selected for the garden before purchasing. **All About Perennials** by Ortho Books and **Perennials** by Pamela Harper and Fredrich McGourty are two good inexpensive references.

Soil preparation for perennial gardens is crucial. Unlike annual beds which can be reworked yearly, the perennial bed must be prepared to last for several years. At Ravisloe, six inches of leaf compost is worked into the bed the fall before planting. A mix of nutrients similar to those used in our annual beds is worked in the following spring. After the ground is raked
(continued page 4)

Executive Blend

BLUEGRASS SOD

THE BLEND—Combination of 5 disease resistant cultivars chosen on the basis of adaptability to a variety of growing conditions.

SOIL TYPE—820 irrigated acres of sandy loam mineral soil.

ROOTING—Rapid establishment in any soil type with less water.

SERVICE—On-Time—Radio Dispatched—Forklift Delivery.

PENNCROSS CREEPING BENT SOD | 75% Sand Base



Quality Supplier of
Seed, Fertilizer,
Chemicals, and
Equipment.

**HUBER RANCH
SOD NURSERY**

Schneider, IN 219/552-0552

- IN 800-553-0552
- IL 800-553-0554

smooth, the soil is covered with a two inch layer of cedar bark mulch. The mulch adds to the tilth of the soil through decomposition, holds moisture, discourages weeds, and adds a pleasant look while the garden is established. The perennials selected for the garden are planted through the mulch with care taken to keep the mulch from direct contact with the stems.

Before planting, place the plants in the intended locations to ensure proper spacing. Care must be taken with bare root plants. After planting, water thoroughly. Allow plenty of space between the plants and the edge of the bed or the background.

Maintenance consists of watering, weeding, deadheading, fertilizing, and monitoring disease and insects. Weeding should be done by someone familiar with perennials because many common weeds resemble perennials when small. Blooming can be lengthened for most perennials by deadheading. Any rearranging of plants in the garden should be done in early fall. In the late fall, plants should be cut back to ground level and a light application of a loose mulch is beneficial. Frost heaving is a possibility the first year. Check the plants periodically through the winter, pushing any exposed roots back into the soil.

The loose mulch, and any debris left from the winter should be removed in the early spring. This practice helps limit harmful diseases and insects. Fertilize the perennial garden in the early spring after growth starts and then again in the early summer with a 5-10-5 fertilizer. Spring is a good time to divide perennials if needed.

A perennial garden is evolutionary in nature. Some plants thrive, some do not. The fantastic design from last year may not look as good this year. Through trial and error, yearly rearranging and experimentation, the perennial gardens at Ravisloe have been enjoyed by the membership, as well as a source of personal satisfaction and pride.

LOW MAINTENANCE, EASY TO GROW PERENNIALS
FULL SUN

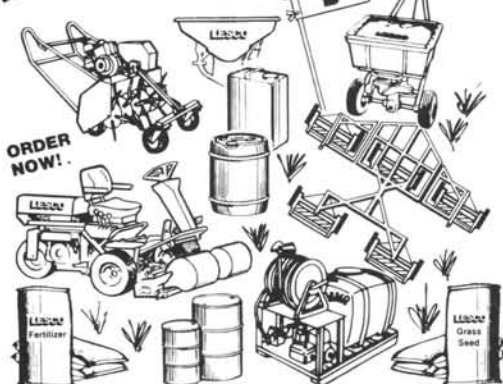
Anaphalis triplinervis
Asclepias tuberosa
Baptisia australis
Campanula persicifolia
Chrysanthemum coccineum
Coreopsis verticillata
Echinacea purpurea
Geranium endressii
Heleopsis heliathoides
Hemerocallis ssp.
Iris sibirica
Liatrix pycnostrachya
Lychnis chalcedonica
Lythrum
Platycodon grandiflorus
Rudbeckia fulgida 'Goldsturm'
Salvia x superba
Sedum 'Autumn Joy'

Anaphalis
Butterfly Bush
Baptisia
Bellflower
Painted Daisy
Threadleaf Coreopsis
Purple Coneflower
Cranesbill
False Sunflower
Daylily (Stella de Oro)
Siberian Iris
Gayfeather
Maltese Cross
Purple Loosestrife
Balloon Flower
Blackeyed Susan
Perennial Blue Salvia
Stonecrop

PART SHADE
Aconitum napellus
Alchemilla mollis
Astilbe x arendsii
Cimicifuga racemosa
Dicentra 'Luxuriant'
Heuchera sanguinea

Monkshood
Lady's Mantle
Astilbe
Snakeroot
Bleeding Heart
Coral Bells
(continued page 6)

LESCO ... for all your turfgrass needs



ORDER NOW!
Fertilizers • Control Products • Grass Seed
Spreaders • Pendulum Spreaders • Sprayers
Greensmowers • Gang Mowers • Aerators
Replacement Parts • Safety Products • Golf
Course Accessories • Lawn Service Brochures

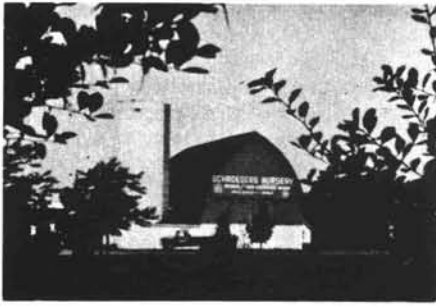
(800) 321-5325
NATIONWIDE

(800) 362-7413
IN OHIO

LESCO

LESCO, Inc., 20005 Lake Road, Rocky River, Ohio 44116 • (216) 333-9250

Schroeder's Nursery, Inc.



TREES • SHRUBS • EVERGREENS

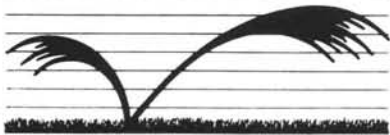
RICHARD A. SCHROEDER
DON VIRGENS
CARL DRAVIS

Specializing in Large Caliper Trees
We offer complete installation

TELEPHONE: 312 — 546-9444

23379 W. Route 60 — Grayslake, Illinois 60030
Located on Route 60 between Rt. 12 (VOLO) & Rt. 83 (IVANHOE)

SPRINKLER



IRRIGATION

3410 NORTH MAIN STREET EAST PEORIA ILLINOIS 61611 309 699 4120

RAIN BIRD

STEVE EISELE
JIM KEYSER
BILL SCHICK



McGinty
BROS., INC.

LAWN CARE TREE CARE
Weed, Insect, Disease Control; Tree Spraying, Feeding,
Fertilizing, Core-aerifying, Slit Seeding Surgery, Trimming, Removal

HYDROSEEDING PRAIRIE SEEDING

3524 LONG GROVE ROAD
LONG GROVE, ILLINOIS 60047 (312)438-5161

PAR EX PROFESSIONAL PRODUCTS[®] with IBDU[®]...with IBDU/SCU[®]... with ADDITIVES.



PROFESSIONAL PRODUCTS for PROFESSIONAL TURFGRASS MANAGERS.

We formulate our products to satisfy the regional nutritional requirements of *your* turf. Many of these mixes contain our exclusive nitrogen source, IBDU,[®] or our exclusive mixture IBDU/SCU.[®] We are now offering the best additives in our mixes: Ronstar,[®] Dacthal,[®] Balan,[®] Dursban,[®] Oftanol,[®] and others.

Check with your local Par Ex Territory Manager or Par Ex Distributor.

par ex
PROFESSIONAL PRODUCTS

Territory Manager
Thomas E. Skinner
Keokuk, IA
319/524-8912

Turf Products Ltd.
West Chicago, IL
312/668-5537

RONSTAR[®] is a registered trademark of RHONE-POULENC, INC.
DURSBAN[®] is a registered trademark of DOW CHEMICAL, USA

DACTHAL[®] is a registered trademark of S.D.S. BIOTECH
OFTANOL[®] is a registered trademark of the Parent Company
of Farben Fabriken-Bayer, GmbH, Leberkosen

GROUND COVERS FULL SUN

Cerastium tomentosum

Hemerocallis spp.

Waltsteinia ternata

Cerastium

Daylily

Barren Strawberry

GROUND COVERS PART SHADE

Astilbe chinensis 'Pumila'

Epimedium x rufibrum

Galium odoratum

Lamium maculatum

Dwarf Chinese Astilbe

Red Alpine Epimedium

Sweet Woodruff

Silver Beacon

PERENNIAL SOURCES

Bluestone Perennials Inc.

7211 Middle Ridge Road

Madison, OH 44057 (216) 428-7535

Iverson's Perennial Gardens

Box 2787 RFD

Hicks Road (Old Route 53) at Lake-Cook Road

Long Grove, IL 60047

Milaeger's Gardens

4838 Douglas Avenue

Racine, WI 53402

(414) 639-2371

Spring Hill Nurseries

110 West Elm Street

Tipp City, OH 45371

T and Z Nursery, Inc. (The Planter's Palette)

28 West 521 Roosevelt Road

Winfield, IL 60190

(312) 293-1040

K. Van Bourgondien and Sons Inc.

245 Farmingdale Road

Babylon, NY 11702

(800) 832-5860

Wayside Gardens

Hodges, SC 29695

(800) 845-1124

The Natural Garden

38W443 Highway 64

St. Charles, IL 60174

(312) 584-0150

Flowerbed Preparation and Maintenance

by David Ward

Ravisloe Country Club

Most Golf Course Superintendents are hired because of their knowledge and ability to grow grass and provide excellent playing conditions. Today, however, flowers on the golf course and in the clubhouse landscape have become an important criterion for judging a Superintendents abilities. Unfortunately, most of our training and experience does not prepare us to deal effectively with flowers. The selection and combination of flowers used is a matter of taste but the success of the flowers selected depends on the preparation and maintenance of the flowerbed. The following procedures have evolved through several years of trial and error and failures and successes here at Ravisloe and might serve as a guide to make your flowerbeds easier to maintain.

The crucial aspect of any flower program is soil preparation. The most important component of the soil for growing flowers is organic matter. Any type of horticultural organic matter, mushroom compost, leaf mold, rotted manure, peat moss, etc., should be added yearly to improve the soil in flowerbeds.

At Ravisloe Country Club, the source of organic matter is leaf compost. All organic material including grass clippings, leaves, last years flowers, and residue from aerification is collection and composted. The collection site is an area large enough to allow for monthly turning of the pile with a front-end loader. The material is composted for a year before use so that a new pile is building while an old pile is used. The compost is ready for use when it no longer heats up after turning and it has the consistency of loose soil. The process can be

(continued page 8)



the bruce company OF WISCONSIN, INC.

(608) 836-7041

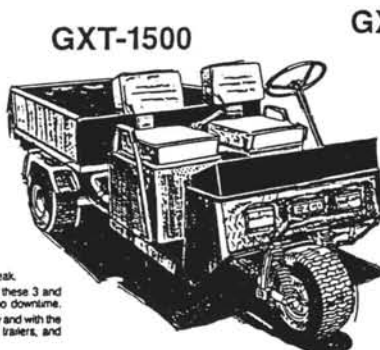
LEE BRUCE
GOLF COURSE CONSTRUCTION

2830 W. BELTLINE HWY. • P.O. BOX 330
MIDDLETON, WI 53562

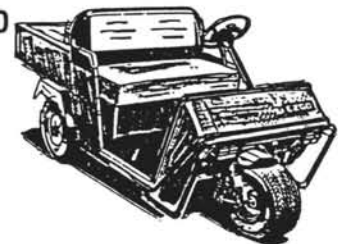
SOME WORKERS DON'T KNOW WHEN TO QUIT.



GXT-800



GXT-1500



GXT-300

Meet the EZ-GO work force. Tough guys who work down to dust and never take a break. Built to EZ-GO's demanding standards, you can expect years of durable performance from these 3 and 4-wheel gas or electric-powered turf vehicles. Plus lower maintenance costs and little to no downtime. For every job you've got, there's an EZ-GO designed specifically to handle it—quietly, efficiently and with the least amount of labor. With carrying capacities up to 1,500 pounds, a complete range of trailers, and adaptability to virtually any accessory, they're a team of superbly versatile workers. EZ-GO. Nobody builds them better.

EZ-GO TEXTRON

EZ-Go Chicago Branch
P.O. Box 548
24404 N. Highway 12
Lake Zurich, Illinois 60047
312/438-5511

Bent Sod That Fits Your Course To a Tee!

from tee to
green...

- PENNCROSS BENT SOD
- PENNLINKS BENT SOD
- PENNEAGLE BENT SOD
- XL-100 BLEND SOD
- A FULL LINE OF LANDSCAPE SUPPLIES

Illinois' largest sod grower

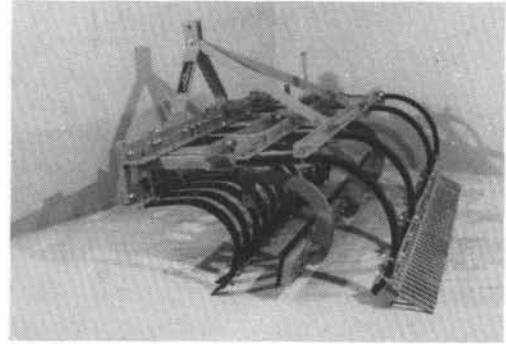
HE SOD
nursery, inc. 

3900 West 167th Street,
Markham, IL 60426
312-596-7200



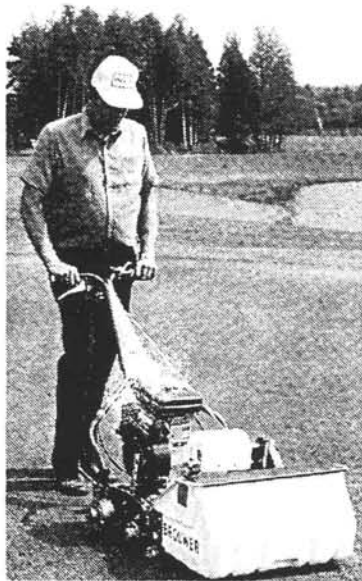
UNIQUE

The most versatile landscape
tool you can buy.



MARTIN IMPLEMENT SALES
16400 S. 104th Avenue
Orland Park, IL 60462
(312) 349-8430

INTRODUCING the BROUWER GREENSMOWER



don't just take
our word ...
COMPARE

- QUALITY
- RELIABILITY
- SERVICE

THE NEW BROUWER GREENSMOWER . . . built to meet the challenge of the modern golf course. For a superb "tournament finish" on your greens trust the Brouwer Greensmower to deliver, cut after cut. Compare it to the competition and see that feature after feature it comes out ahead.

Features like: special hardened alloy steel bedknife and cast iron holder; bearing mounted gears in the traction and reel drives; gear engage from main drive on the reel clutch; 1/8 in. to 1-3/16 in. setting for height of cut; self pre-load taper roller bearings; transport sulky and many more.

A combination of built-in quality engineering features that no other greensmower can match and that guarantees your greens will be the envy of others who choose to miss the "finest cut" — CUT THE BROUWER WAY.



**CHRISTENSEN
POWER
EQUIPMENT INC**

Manhattan-
Monee Road
815-469-5898

Irrigation Engineering Co.

...SOUND ENGINEERING and QUALITY MATERIALS

Your Exclusive

Weather  matic.
LAWN AND TURF IRRIGATION

Distributor



2612 S. 9TH AVE. • BROADVIEW, IL 60153
(312) 450-1400

The Wetting Agent with Proven Results.
Over 800 Golf Courses in the U.S.A.
use NAIAD Central Injection Systems.

THE LOOK . . .

Greener, More Uniform Turf Color . . . Including Banks And Slopes.

THE SAVING . . .

More Irrigation Water Goes Directly Into The Soil.
Minimal Run-Off On Banks And Slopes.
LESS Irrigation Water Used. LESS Labor Is Needed.
LESS Electrical Pump Energy Required.

THE EASE . . .

One-Step Application. NAIAD
Metering Pumps Inject NAIAD
Directly Into Irrigation
System, Or Use The
NAIADrencher
Tool For Trouble
Spot Appli-
cations.

THE DIFFERENCE



naiad

Turf Products, Ltd.
2 N 255 County Farm Rd.
West Chicago, IL 60185
(312) 668-5537 / 231-8441

Bo Jo Turf Supply Co.
24356 Harvest Hills Rd.
Frankfort, IL 60423
(815) 469-6730

Home Office: Naiad Co. Pleasanton, CA (415) 462-5855

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

312/584-7710

Hal Laman

"Golf Course Work a Specialty"

LEMONT PAVING CO.

Lemont, IL 60439

Jim, Tracy, Ray Murphy

257-6701

WHOLESALE SUPPLIER for



LAKE COOK
FARM
SUPPLY

Landscapers • Nurserymen • Golf Courses

- Turf and Agricultural Chemicals
- Common and Elite Turf Grass Seed
- Union Fork Tools
- Peat Moss — Bark — Mulches
- Root Lowell Sprayers
- Shaws and F.S. Fertilizers

CUSTOM BLENDING OF BULK FERTILIZERS OUR SPECIALTY

Pickup or Delivered from our Bulk Fertilizer Plant
Custom Fertilizer Spreading Available

DISTRIBUTORS OF F.S. PETROLEUM PRODUCTS

GASOLINE • LUBE OIL • DIESEL FUEL



LAKE COOK FARM SUPPLY

PETROLEUM
DIVISION
101 E. MAIN ST.
LAKE ZURICH, IL 60047
540-0100

TURF
DIVISION
1214W NORTHWEST HWY.
PALATINE, IL 60067
991-4800

BULK FERTILIZER
PLANT
170 CEDAR AVE.
LAKE VILLA, IL 60046
356-9600

(Flowerbed Prep. cont'd.)

hastened with the addition of lime, nitrogen, and a little soil.

Flowerbed preparation begins in the fall after the first killing frost and the removal of all the previous year's annuals. A six inch layer of compost is applied over all of the flowerbeds along with about one pound per thousand square feet of a 10-10-10 or a 12-12-12 fertilizer. The beds are then rototilled to a depth of ten inches which allows the compost to break down further over the winter. The beds are then raked smooth and edged for a neat appearance through the winter.

In the spring, the beds are rototilled as soon as the soil is workable. Then, one week before planting, (planting usually occurs the last week in May), the beds receive the following nutrient formula:

5 lbs./1,000 sq. ft.	Dispersal
2 lbs./1,000 sq. ft.	Iron Sulfate
40 lbs./1,000 sq. ft.	Milorganite
10 lbs./1,000 sq. ft.	0-46-0
10 lbs./1,000 sq. ft.	0-0-50
.5 lbs./1,000 sq. ft.	Subdue 5G
10 lbs./1,000 sq. ft.	Aqua Gros S

All beds are measured, the amount of material needed calculated, the material is weighed on a small scale, and is applied to the bed by hand or with a small push spreader. This formula may seem high in nitrogen, (2.4 lbs./1,000 sq. ft. plus the nitrogen released from organic matter breakdown) however, with the slow release of a organic nitrogen and the genetic predisposition of today's annuals to bloom, no excessive foliage or lack of flowers has been observed. After all the material has been added, the beds are again rototilled to a depth of ten inches, raked smooth and edged.

The flowerbeds, which were actually designed the previous winter, are laid out and planted. The spacing is usually closer than specified on the plant label so that the foliage will grow together faster, shading the soil which helps control weeds and evaporation. Also the beds look more mature earlier when plants are spaced closer. The rule of thumb is to reduce planting space about 30% so if a plant calls for 12" spacing, the actual spacing is about 8".

Growing season maintenance includes weed and disease control. Beds are checked daily for obvious weeds and a thorough weeding is scheduled every two weeks. The beds are sprayed about every two weeks in the heat and humidity of the summer with Tersan 1991 and Manzate 200 or Duosan. Annuals like Snapdragons, which are susceptible to root diseases, are retreated with Subdue about mid summer. Deadheading, or removing spent flowers from the plants, is also scheduled every two weeks. Due to the large organic matter content of the soil, plants only need to be watered once a week if no natural rainfall occurs. Some plants, such as Begonias or Impatiens may need more frequent irrigation if not grown in total shade. All beds are edged on Fridays throughout the growing season.

Labor requirements at Ravisloe for maintenance of the clubhouse area, annual and perennial flowerbeds, and landscape areas includes a full time head gardener, a seasonal full time assistant gardener, and a seasonal full time laborer. The budget for purchase of plant material and related garden items is \$3,300 per year.

After the first killing frost, all of the annuals are removed to the compost pile and the process begins again.

PRECISION BLENDED TOP DRESSING

Custom blended to your specifications
by our modern equipment.

*Buy when you need —
Eliminate costly storage*

We sell an air-dried, uniform and
free flowing top dressing.

ASK THE MAN WHO HAS USED IT.

HUMUS — BLACK SOIL

HENRY FRENZER

Area Code 312
658-5303

620 Webster St.
Algonquin, IL
60102

BIG TREES

INC.

Serving northern Illinois



Please, call us today! Whatever your tree needs . . .
to buy, relocate, or transplant . . .

312/481-5224

Member of: ILCA, ISNA

WE'RE STEAMED.

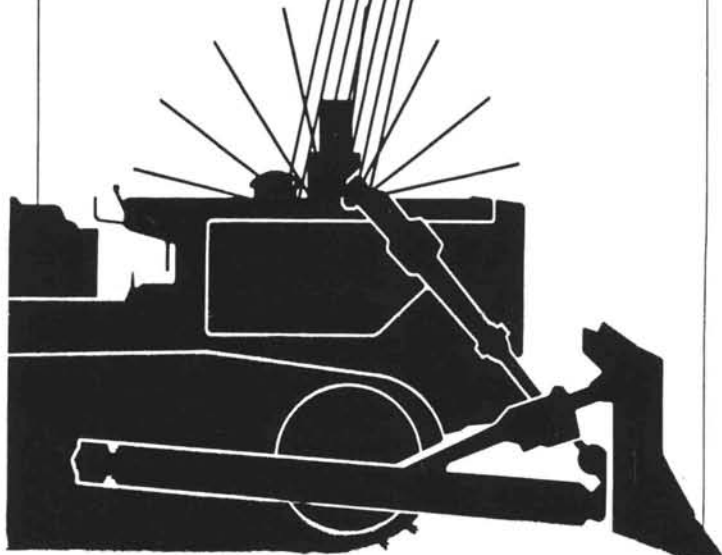
THE CLEANING SYSTEM THAT DELIVERS A 300°F. PUNCH.

Dirt and grime can slow down
and even cripple heavy equip-
ment, causing you to lose time
and money. Our system
removes industrial grime with
its hot water cleaning solu-
tion, heated as high as 300°F.,
at pressures up to 3,000
pounds per square inch.

This saves employee time
and reduces down time
on your heavy equip-
ment. No matter what
kind of cleaning job
you've got, we can
handle it. Even if you're
already using an
industrial cleaner,
our cleaning sys-
tem runs smoother,
quieter and more
efficiently. Call us
for a free on-site
demonstration.

Hotsy of Chicago, Inc.
25 South Park Street
Roselle, Illinois 60172
312-893-0777
800-666-3900

HOTSY
OF CHICAGO



Adding Flowers to the Golf Course Landscape

by Dr. Lois C. Berg
University of Maine at Orono

Flowers for many years were almost exclusively in separate "flower gardens," whether in private yards, commercial landscapes or public gardens. Landscape architects and contractors traditionally relied on evergreens, deciduous trees and shrubs, turf and a few groundcovers. Flowers were reserved for the avid gardener, and flower gardens were an afterthought to the landscape design.

Times have changed! The fine line that once separated landscaping from gardening has blurred, and more flowers are being used everywhere — not just in flower beds, but as integral parts of the landscape. The increased use of low-maintenance annuals, perennials and bulbs can be seen in the landscapes of gardeners and non-gardeners alike, creating an urban environment that changes dramatically from one season to the next.

These changes are evident on golf courses, too. In the past, flowers were found only near the clubhouse. Bulbs added a spark of color in spring, and summer color was derived from sunny beds of marigolds and geraniums, and from shady beds of impatiens. Recently, the use of flowers on the golf course has expanded greatly. Many golf courses have added perennial gardens, wildflower plantings and non-traditional groundcovers. But even more exciting, there has been an increased emphasis on the use of flowers as specimens, much the same as shrubs have been used in the past.

Flowers have much to contribute to the golf course landscape. One obvious attribute is color — flowers offer an endless array of shades, hues and tints from early spring until hard frost. A second attribute is variety. Flowers vary tremendously in texture, color, size, shape, habit, season of flowering and foliar interest, making possible an infinite number of combinations. A third and perhaps more subtle attribute is the effect of that variety on the landscape. Flowers change dramatically from one season to the next. A landscape of trees and shrubs can be quite constant, but a landscape using flowers changes constantly. Each season has its own look: a touch of color brightens the spring landscape, full color develops in summer, textures emerge in autumn, and the color of flowers gives way to the architecture of trees and shrubs in winter. This change can be a great asset on a golf course relieving the sameness of the view from one week to the next throughout the season. Even the pros appreciate a change in the scenery.

Making the Selection

With thousands of annuals, perennials and bulbs available, it can be a challenge to select the right plant for the right place. There are several basic factors which you should consider first, however, and these factors will help you choose specific plants.

First, consider hardiness. Of course, this is not an issue when choosing annual flowers, but it is the single most important factor in selecting perennials and bulbs. Take the time to visit perennial nurseries and observe public and residential plantings to see what plants are hardy in your area. Check with a landscaper, garden designer, or better yet, a long-time local gardener. Catalogs can be quite misleading, since they classify plants by generalized hardiness zones. Be aware that some "hardy" plants require mulching over winter to survive, while others are

reliably hardy with no protection at all.

Second, match the flowers to the environment. There is no flower for every location from dry shade to wet sun, but there is no single flower that is adaptable to all environments. Consider the soil (pH, soil temperature, nutrient levels, moisture levels, texture, drainage), temperature (frost dates, reflection of heat off buildings, diurnal fluctuation), light (intensity as well as duration), wind, precipitation and weed problems. It is far easier to manage flowers that are planted in the proper environment than those planted in a location to which they cannot adapt.

Third, give top priority to plants that are low-maintenance. Remember that low-maintenance does not mean no maintenance. Most flowers require more work than trees or shrubs. Most annuals, for instance, require deadheading (removal of spent flowers to encourage rebloom) at least weekly throughout the season. Most perennials should be cut back after flowering. Some flowers need weekly pest control, some require seasonal pruning, several benefit from staking. None of these maintenance needs should in and of itself eliminate a plant from your list, but they should be considered before plant selection.

Fourth, aim for long-lived perennials and bulbs and full-seasoned annuals. Most perennials flower for only a few weeks during the summer, but their value in the landscape increases with age. Short-lived perennials may perform well for one or two years but decline or die in subsequent years, making them fairly high-cost plants. Some bulbs are quite permanent, lasting for many years, while others become weak after only one or two years. With the high cost of installing bulbs, it's worth taking the time to select those that will last for many years. Many annuals will flower over the entire summer, but some will stop in the heat, and others require pruning and deadheading to promote season-long flowering. Still others will burn out and die before the end of summer, leaving a bare spot in the landscape. Visit public gardens and trial gardens sponsored by seed companies and the All-American Selections organization to evaluate annuals for performance.

Fifth, consider how long and at what time of year flowers are effective. Some annuals, like impatiens, flower the entire season with very little if any maintenance. On the other hand, most perennials for less than a month, but many have excellent foliage and form the entire season. Some perennials, like several of the ornamental grasses are effective even in winter. Match your needs with what the plant offers.

Sixth, always consider function before beauty. Remember that a golf course exists primarily for the game of golf. Flowers should not interfere with that game. Flower beds and borders should be placed near the clubhouse where the public can observe their beauty, or between holes and out of play. On the other hand, the course can be beautified through the judicious placement of flowers among shrub and tree borders, along fences and near benches.

Suggested Uses

The design possibilities for flowers on the golf course are endless, but here are a few ideas based on the above guidelines. Unless otherwise stated, these are full-sun plants.

- Use *Astilbe x arendsii* as a ground-cover in a shady place. Several red, pink and white cultivars are available, flowering for 3-4 weeks, in July and August. Astilbe is very hardy, re-

(continued page 14)