THE GREENERSIDE

Official Publication of the Golf Course Superintendents Association of New Jersey

Soil fertility management practices to control summer patch disease

by Joseph R. Heckman, Extension Specialist in Soil Fertility and Bruce Clarke, Extension Specialist in Turfgrass Pathology

he causal agent of summer patch disease, Magnaporthe poae, is a fungus that affects Poa and Festuca species. The fungus forms dark brown to black septate runner hyphae on roots, crowns and rhizomes of turfgrass hosts. Symptoms first appear in early summer with circular patches or rings of wilted turf. Patches grow from two inches in diameter to more than two feet. High temperatures and frequent rains change the patch color from a grayish-green to light straw.

Summer patch can be differentiated from various stresses that may affect turfgrass by examining the roots, rhizomes and crowns. The presence of black to brown runner hyphae and root decay are indicative of summer patch.

Research at Rutgers University has repeatedly demonstrated that the form of nitrogen nutrition used on turf can have a significant influence on the susceptibility of turf summer patch disease. Among the various nitrogen fertilizers that have been evaluated, ammonium sulfate gives the best disease suppression. Nitrate sources of nitrogen enhance the severity of summer patch. These nitrogen fertilizer effects appear to be related to changes in soil pH. Ammonium nutrition causes soil pH reduction whereas nitrate nitrogen raises pH. The acidic environment caused by ammonium sulfate reduces the incidence of summer patch because a lower pH environment discourages the growth of the fungus.

The latest research conducted by Rutgers Cooperative Extension indicates that the use of ammonium sulfate must be balanced with an adequate liming program. Continued use of ammonium sulfate without limestone application may result in an excessively low soil pH and poor quality turf. Soil testing should be performed regularly to monitor soil pH changes. Golf course superintendents may want to obtain a portable pH

meter to check pH frequently.

The following management practices are recommended for maintaining the optimum soil pH needed for quality turf and the suppression of summer patch:

Apply ammonium sulfate frequently, but at low rates—about 0.25 to 0.5 lbs. N per 100° square feet every three to 4 weeks during cool weather. Apply about 1/4-inch of irrigation immediately following the application of am-

Continued on page 4

In this issue



No.	NERSEY O
Editorial	1926 HOT
President's Message	3
GCSANJ News	5
GCSAA News	10
Fairway foxes	16
X-marks the spot	17
It's that time of year	20
Retirement: A long term game	24
Back nine	26

GCSANJ Newsletter is published six times a year by the Golf Course Superintendents Association of New Jersey

Ken Krausz, Editor
Newsletter Business Staff
Ken Krausz, CGCS
Contributing Writers
Douglas Vogel,

Edward Walsh, CGCS, Shaun Barry Steven Malikowski, CGCS

Please address inquiries to:
Editor, The Greenerside
330 Paramus Road
Paramus, NJ 07652
For Ad Placement: Judy Policastro
(201) 379-1100

Art and Typography by
Trend Multimedia
908-787-0786 • FAX 908-787-7212

GOLF COURSE SUPERINTENDENTS ASSOCIATION OF NEW JERSEY

66 Morris Ave., Suite 2A Springfield, New Jersey 07081 201-379-1100 • FAX 201-379-6507

Officers:

Paul Powondra, President
Glenn Miller
Vice President
Ken Krausz, CGCS, Secretary
Ron Mencl, Treasurer
Chris Carson, Past President

Directors

District 1
Michael Mongon
Joe Kennedy

District 3 *Edward L. Mellor Dennis Shea*

District 2 Vincent Bracken Patrick Campbell, CGCS District 4
Douglass P. Larson
Steve Malikowski,
CGCS

Chapter GCSAA Delegate
Wayne Remo, CGCS
Executive Secretary
Judy Policastro

Commercial Representatives Steve Chirip Shaun Barry

© 1996 THE GREENERSIDE

Opinions expressed in this Newsletter are the opinions of the authors and do not necessarily express the opinions or policies of the GCSANJ Board and its membership. No part of this newsletter may be reproduced in any manner whatsoever without written permission.

Printed on recycled paper

EDITORIAL



'Tis the season

It is the season for learning, the season for reflection. The tough seasons are over, and each and every one of us should

be looking back and learning from our experiences (note that I did not say mistakes, as some of us never make a mistake). Many of us had great seasons, some of us did well, some of us are no longer employed at the same club where we started the year.

I did not have a great year, although I did OK. If someone told me that Summer Patch and Anthracnose would be a big problem for me this year, I would have thought that they were crazy. I have all the preventative applications down for Summer Patch. I also had Summer Patch this year. It was not that hot, but the spring did bring a lot of rain. Maybe moisture plays a bigger role than suspected before. In 1988, when the last big outbreak of Summer Patch sprung, it was wet and hot.

Anthracnose was never a problem at Paramus Golf Course before, but Dr Jim Murphy diagnosed it this year. It is a good year for learning for me. At least my tees and fairways look better than ever. Golf course superintendents are their own worst critics, and this is a good thing. Most golfers thought my course looked fine, hardly any questions on conditions. One lesson I learned years ago came into play this season. If someone told me years ago that the course looked great, I would have answered, "Thanks, and we will get those greens back in shape soon." I learned a long time ago just to say thanks, because they may not notice the greens or any other problem if you do not mention it.

It is a season for learning, so I look forward to seeing many of you over the winter at all the seminars and shows, LEARNING, LEARNING and more LEARNING.

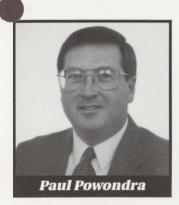
Check out the two articles on soil fertility and pH meters; they are written by some of the best researchers around. Joseph R. Heckman and Bruce Clarke write about controlling Summer Patch with soil fertility management. Joseph Heckman also has a piece about pocket-size soil pH meters. I know that both articles have helped me continue to learn.

Thanks to all who met the October 1 deadline. The deadline for the January/February 1997 *Greenerside* is December 1.

Looking forward to seeing you all soon.



PRESIDENT'S MESSAGE



Make the call

rapping up my term as president of GCSANJ, I re-

flected back to the call I made in 1988 to Bruce Peeples. Bruce was a District 3 director at that time, and I told him I was a bit bored and would like to get involved and contribute to our Association. Shortly thereafter I heard from the editor of *The Greenerside*, Ilona Gray, and I found myself traveling the state doing profiles of superintendents. By 1989 I got elected to the Board, Steve Finamore assigned me to the Government Relations and Scholarship and Research Committees, and I was also told to get in touch with Ilona again to act as a liaison to something called the Alliance for Environmental Concerns. Eventually, I joined the Alliance Board as well.

Now here I am looking back at having had the honor to be GCSANJ president, but the point here is not necessarily just about Paul Powondra, but rather it is about anyone interested in contributing to our Association. Some may comment that you have to be part of the "in crowd" or that we are cliquish, and to that I will disagree because I certainly knew very few people when I called Bruce Peeples years ago. Believe me, anyone offering to help out with committee tasks is more than welcome, especially from outside the Board. Some people find the involvement interesting enough to seek elective office, while others simply are not able to devote the time required, but contribute in their own way, such as helping out at Field Day or offering their course for a monthly meeting. In any event, it is all greatly appreciated. Don't hesitate to let your Association know you'd like to help out.

On that note, I'd like to thank GCSANJ for the opportunity to be a part of a group of people who are supportive and helpful when the chips are down, and a great source of advice, encouragement and, indeed, humor. It has truly been a growing experience.

Performand

Calendar

Dec. 9-12, 1996	New Jersey Turfgrass Expo Taj Mahal, Atlantic City 908-821-7134
Jan. 17-18, 1997	Lake Management Cook College, New Brunswick 908-932-9271
Jan. 20-Feb. 7	Rutgers Professional Golf Turf Manage- ment School Three-week preparatory short course 908-932-8451
January 28-29	Center for Turfgrass Science Annual Symposium (formerly Advanced Turfgrass Management) 908-932-8451
January 29-30	Stabilization and Restoration of Disturbed Sites Cook College, New Brunswick 908-932-9271
January 30	Internet for the Golf Course Professional Rutgers University 908-932-8451
February 6-12	GCSAA's 68th International Golf Course Conference and Show Las Vegas, Nevada
March 3-4	800-472-7878 Introduction to Golf Course Management Rutgers University 908-932-8451

Pocket-size soil pH meters

by Joseph R. Heckman Extension Specialist in Soil Fertility

oil pH is a very useful measurement that is indicative of soil chemical and biological properties important to plant growth. The availability of plant nutrients, activities and nature of microbial populations, solubility of toxic substances and activities of certain pesticides are influenced by soil pH. With so many soil processes affected, it is not surprising that extension workers, golf course superintendents, commercial growers and home gardeners alike are especially interested in rapidly measuring soil pH for diagnostic purposes.

I recently evaluated the suitability of just a few of the relatively inexpensive (\$50 to \$200) pocket-size pH meters being marketed for soil pH measurement. They were compared to a research-grade pH meter. The results showed that the pocket-size meter pH measurements agreed closely with the

research pH meter. They were found to be suitable for measuring soil pH in the field for diagnostic purposes. They should not, however, be expected to take the place of soil fertility tests performed in the laboratory. The relatively low price, ease of use and portability make pocket-size pH meters ideal for routine monitoring of pH for the golf course, commercial crop production or home gardening.

Results of pH meter evaluation and a Fact Sheet (FS767) on procedures to measure soil pH are available on request from Joseph R. Heckman, Extension Specialist Soil Fertility, Plant Science Department, Box 231, Cook College, New Brunswick, NJ 08903; fax: (908) 931-9441, Attn.: Dr. Heckman; phone: (908) 932-9711 ext. 134; e-mail: heckman@aesop.rutgers.edu.

Soil fertility management practices

Continued from page 1

monium sulfate to prevent fertilizer burn.

- 2. Check soil pH in the 0- to 2-inch layer in the spring and fall each year.
- 3. Apply limestone as needed to maintain soil pH near 6.0. Be careful to avoid excessive applications of limestone since this will enhance summer patch development.
- 4. Improving drainage, reducing compaction, and performing aerification and syringing to reduce heat stress also helps to control summer patch.

MORIE Golf Course Construction and Maintenance Materials

Unmatched Quality and Service

- Bunker sands
- Root zone materials
- Topdressings
- Decorative stone
- Crushed stone
- Drainage materials
- Fill Dirt
- Top Soil

MORIE

The Morie Company, Inc. A South Jersey Industries Company Box 463, Woodbine, NJ 08270 800-732-0068 Fax 609/861-2234



RALPH McGILLAN

Excavating Contractor

Specializing in Lakes & Ponds

Over 30 years experience in building new ponds, enlarging & redesigning existing ponds.

Can get all DEP permits

(609) 655-2281 74 Petty Road, Cranbury, NJ



GCSANJ NEWS

THE GREENERSIDE SUPER PROFILE

Mike Mongon of the Arcola C.C. has a simple philosophy and the results show it. "Everyday is a Member/Guest" is the approach taken by the superintendent, who for nine years has transformed Arcola into one of the premier private clubs in the state.

The path that led Mike down the road to a career in golf course management is not unlike that of many other



Mike Mongon

superintendents. After a chance meeting with another superintendent, the future business management graduate liked the idea of working outdoors and enrolled in the Rutgers Turf School. After graduation, Mike worked under the tutelage of Larry Paklemla, CGCS, of the Woodway C.C. in Darien, Connecticut, before coming to Arcola.

Mike has hosted many prestigious tournaments at Arcola, including the Stoddard Cup, Williamson Cup, the MGA Selior Championship and the District 1 Picnic Cup. Mongon is an active member of many associations. He is on the Board of GCSANJ and METGCSA, serving as a district director and government relations chairman. He is also a past president of the Rutgers Turfgrass Alumni Association. In his spare time, Mike teaches at the Rutgers program, coaches high school sports, is president of the Paramus Little League and is the official voice of the GCSANJ Field Day.

The tee on the 5th hole is the highest point in Paramus, and it is Mike's favorite spot on the golf course. It's a great place for Mike to view the fruits of his labor and to contemplate what lies ahead.

Mike and his wife, Kathy, have been married for 14 years, and they have three beautiful children, Ryan, Katrina and Timmy.

GCSANJ WELCOMES NEW MEMBERS

The Greenerside welcomes the following new GCSANJ members:

A

William Curran B-1 Cean County G.C. at Atlantis

Bob Hogan Millburn Municipal Golf Course Jeff Fabiano C
Koonz Sprinkler Supply, Inc.

Keith Kubik C
Grass Roots Turf Products, Inc.

Nancy Sadlon H
Alliance for Environmental Concerns

Bradley D. Sparta D
Great Gorge Country Club

There has been one change in membership category:

Kerry Boyer B-1 to B Marlboro Country Club



Take the STRESS off You and Your Turf

with Floratine Products and Sleepy Hollow Turf Mngt.

FLORATINE PRODUCTS GROUP Speciality
Products
for Turf

ASTRON is designed to increase root mass, length and carbohydrate storage. ASTRON enhances turfs ability to withstand stress.

PERK-UP improves plant respiration, relieves

wilt and restores color loss due to high heat and humidity. It also enhances root growth.

PER '4' MAX is formulated to increase topical

density of turf and encourage root development in early Spring and Fall.

MAXIPLEX will decrease nutrient tie-up, reduce daxiplex compaction and hot spots, help manage soil moisture, and in sand reduces leaching.

CalpHlex is the great balancer it will lower CalpHlex soil sodium, increase available calcium, and balance calcium to magnesium ratios.

RAIDER-TG will dramatically increase plant uptake of systemics by opening plant stomata. It Reduces Chemical Usage and Saves You Money!

For these & other fine Floratine Products contact Sleepy Hollow Turf at 1-800-958-2913 Exclusive Distributors in the Maryland, Delaware, New Jersey, Washington, D.C., and Eastern PA Areas.

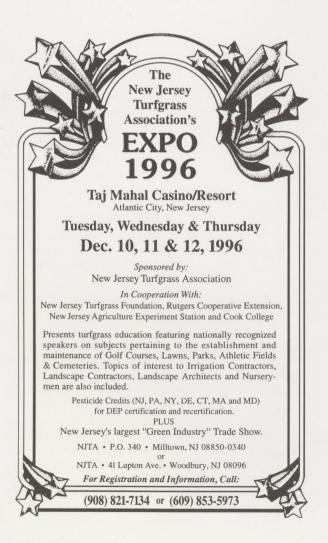


GCSANJ NEWS

LOOKING GOOD AT ONE HUNDRED

by Shaun Barry

It has been a very good year. No, I did not win the lottery, but we did have 112 players at our July meeting. Back in April it looked like we would be meeting at a Holiday Inn. Then Jeff Drake said he would try to host this event. Did he know something that nobody else knew? That May would continue into August. I don't think so. What he did know is that although his club was celebrating its 100th birthday along with hosting the State Amateur Championship, we needed help. As usual Jeff and Forest Hill made room for one more. It turned out to be the best date that many of us have ever had with a 100-year-old.



Pete Siegel (76) came the closest to mastering the subtle but stern challenges of this classic. He was followed by Tom Grimac (77) and Ian Kunesch (78). Pete's boss, Mike Gesmundo, made it a complete sweep for Bruedan as he took low net honors with a 69.Brad Rozzelle(70) and Bob Prickett (70) represented District IV well with a second and third place finish. T. Grimac, 4'7", and Bruce Reedy, 7'4 1.2", split closest to the pin honors, while Doug Larson "tubed" his drive to collect the longest drive honors. It must have been close to 300 yards (uphill and into a breeze). What a shot!

The next award told us something that we already knew—Sky Bergen (133) is an honest golfer. Fran Owsik and Tom Sauerwon their Leslie Cup match, while the Cross-Woods and Kriews-Mathis teams advanced in the consolation bracket. Walking away with one skin were Rob Mylnarski, John Fitzgerald and Jim Waniak, while Jim Woods was able to have two hold up.

This ended our golfing day but our memories of the meeting will linger. It was a perfect day and a perfect place to gather with 111 of your friends and associates. We offer our sincere thanks for your wonderful hospitality, and congratulations on your first 100. May there be many more.

DISTRICT II MEETING AT PINCH BROOK G.C.

Many thanks to Bill Engler, superintendent at Pinch Brook G.C., for an enjoyable day of golf on one of the best-maintained public courses that I have played. Twenty golfers tried their skill on the 4,700 yard par 65 course. Low man for the day was Vince Bracken with a 61 on a match of cards with Jack Martin. Pat Campbell, with a 63, took third.

District II's team for the championship that will be held at Trenton G.C. will consist of V. Bracken, P. Campbell, **Bob** Dwyer, Pete Pedrazzi, Jack Martin and Jay McKenna.

THE GATHERING OF THE DISTRICT

by Shaun Barry

District III finally had its meeting. Originally scheduled for the middle of August at Toms River C.C., jury duty for Ec. McSeamen caused us to switch to late August at Mattawang G.C.

NEW JERSEY OF

GCSANJ NEWS

Continued from page 6

Mother Nature chose to change that date to September 26. With all those changes, it is surprising that anyone showed up, but 42 people did find the course. It turned out to be a great day. Chip Kern and Ron Alfieri were unable to be with us, but Bill Gilligan filled in as an able host. With a dad like Jim, what else would you expect.

On the course we had some good play, some extraordinary play and then there was the rest of us. Jim Woods and John Alexandertied with 72s for low gross, but Jim won on a match of cards. On the net side, Blair (I need a handicap adjustment) Quinn had a 55 (Yes, this is the extraordinary part. We are withholding his winnings until after the investigation is completed.). He also won one of the closest to the pins while Rob

Mylnarski took the other one. Angelo Petraglia took first place in the A portion of the long drive contest. J. Alexander and J. Woods also qualified. Matt Dobbie, Craig Kinsey and Jeff Theibaultheaded up the B division, while Brad Simpkins, Joe Gunson and Ron Robbins set the standard in the C flight. Without their partners, Owen Regan and Shaun Barry competed in the quarter finals of the consolation bracket of the Leslie Cup. Mr. Regan is now in the consolation bracket of the consolation flight (he didn't win).

Many thanks to Chip, Ron and Bill for having us as their guests. We really had a great time, and the best part is we are invited back.





Tee & Green & In Between

Whether your challenge is a deadline, a tee, a green, a fairway, a rough, or a bunker surround, we have a blend that fits your needs.

We understand the variety of problems you face because we have spent a great deal of time listening to golf course superintendents. As a result, Tee & Green Sod offers the most complete product line





available to the golf course industry—even a four-foot wide washed roll!

Give us a call for information about our selection of products, and our unique harvesting and washing techniques.

- Bentgrass
- Bluegrass
- ·Washed sod
- •Bluegrass-Ryegrass
- •Bluegrass-Fine Fescue

TEE & GREEN SOD — INCORPORATED —



401/789-8177 • 401/789-3895 (fax) • PO Box 418, Exeter, RI 02822



GCSANI NEWS

THE FUZZY WHITE BALL AT SOMERSET HILLS

by Doug Vogel

Somerset Hills C.C. is a world-renowned golf course designed by celebrated architect A.W. Tillinghast. The meticulous maintenance of the famed layout is overseen by golf course superintendent Bob Dwyer. Bob and his staff have the unique task of maintaining 18 challenging holes of golf and also eight grass tennis courts. This gives Bob the honored distinction of being the only superintendent in the state who must deal with two hotly debated issues of turf management— "Green Speed" and "Ball Bounce."

The grass tennis courts at Somerset Hills open on Memorial Day and close the second week of October. They consist of a Bent/Poa mix and cover approximately 1 1/4 acres. A

For golf course greens, tees and other fine turf areas.

- Clear liquid-100% water soluble
- · Compatible with pesticides
- · Does not leach or evaporate
- · Maintains rich green color
- · Quick green up
- Low burn potential
- · Organic Nitrogen
- · Controlled release

ENVIRONMENTALLY SAFE

The Grass is always *Greener* on the **GREEN-T** side!

PLANT FOOD COMPANY, INC

Manufacturers of Fluid Fertilizers

Hightstown-Cranbury Station Road Cranbury, NJ 08512 • 609-448-0935 800-562-1291 • FAX 609-443-8038

triplex mower set at 1/4" cuts the courts four times per week, and on alternate days a roller is used to maintain firmness. The lines are painted on the courts every two weeks.

Aeration of the tennis complex is done twice a year during the spring and the fall. Plugs are removed and a hi-sand content topdressing is applied. A pesticide program similar to that of the greens is followed to combat insects and disease, but the real enemy of the turf is wear and tear. This damage is kept to a minimum by rotating the use of the courts. When it becomes a noticeable problem, it is usually along the baselines and is remedied by using a hexagon cutting repair tool.

Many big name tennis players have had the good fortune to have stroked the fuzzy white ball at Somerset Hills. During the turn of the century, club member William Larned was a seventime U.S. National champion. Also gracing the courts with their tenacious skills have been "Big" Bill Tilden and Ken "Root" Kubik. Tilden was the Babe Ruth of tennis during the 1920s and Kubik wasn't. Both Tilden and Kubik had similar styles of play, although "The Root" will be quick to point out that those styles of play were strictly found only on the tennis

Two observations Dwyer cited about the tennis courts were interesting because of their simplicity. The first observation Bob made was that the courts are relatively easy to maintain due to the courts having been constructed properly. Second, the bentgrass thrives on the tennis courts because they don't get over-watered. Those are two basic tenets of turfgrass management and should be given consideration more often.

The world-class conditions at Somerset Hills are the result of a lot of hours and a lot of hard work. Green speed and ball bounce are consistently at their best. With Bob Dwyer in charge of their facility, the golf and tennis membership can be heard proudly boasting throughout the state—advantage Somerset Hills.

RIDGEWOOD C.C. RECOGNIZED FOR ENVIRONMENTAL EXCELLENCE

The Ridgewood Country Club has achieved designation as a "Certified Audubon Cooperative Sanctuary" by the Audubon Cooperative Sanctuary System, a program of Audubon International, and endorsed by the United States Golf Association Ridgewood C.C. is only the second in New Jersey and the 77th golf course in the nation to receive the honor.

Continued on page 9



GCSANJ NEWS

Continued from page 8

In 1991, Ridgewood C.C. joined the program, which provides information and guidance to golf courses to help them preserve and enhance wildlife habitat and protect natural resources.

"Ridgewood Country Club has shown a strong commitment to its environmental program. They are to be commended for their efforts to provide a sanctuary for wildlife on the golf course property," said Maria Briggs, staff ecologist for Audubon International.

"To reach certification, a course must demonstrate that they are maintaining a high degree of environmental quality in a number of areas," explained Briggs. These categories include: Environmental Planning, Wildlife & Habitat Management, Public Involvement, Integrated Pest Management, Water Conservation and Water Quality Management.

"All of our efforts and accomplishments are part of an overall plan to not only maintain Ridgewood Country Club as one of the top golfing facilities in the United States, but also to make our club environmentally sound," said Ridgewood President Fred Nydegger. "The club is extremely committed to preserving the natural habitat on its 275-acre complex," explains Ridgewood greens superintendent, John J. Gasper, "and our Long Range Environmental Plan was created so that RCC can improve and sustain our desired level of environmental quality for years to come."

In addition to golf courses, the Audubon Cooperative Sanctuary System also includes programs for schools, individuals and businesses. For more information, contact Audubon International, 46 Rarick Rd., Selkirk, NY 12158; (518) 767-9051.

Editor's note: John Gasper has recently left Ridgewood C.C. to work as superintendent at Oak Hill C.C. in Rochester, NY. Good luck to John and his family.



A "SOIL FIRST" PROGRAM



- REDUCE WILT
- WON'T BURN
- WATER HOLDING CAPACITY
- BETTER NUTRIENT MOBILITY
- SAFETY OF APPLICATION
- SOIL CONDITIONING

NATURAL ORGANIC FERTILIZERS:

5-4-5 • Helps reduce wilt and builds soil. 14-2-5 • Builds water holding capacity.

NATURAL ORGANIC SOIL CONDITIONERS:

KICK • Stimulates roots and opens tight solls.
N-HANCE • 12% needed calcium to help build cell walls.

BIO-STIMULANTS:

POTENT-SEA • Reduces stress with over 60 trace nutrients. POTENT-SEA PLUS • Sea kelp and fish meal together.

For a free catalog and a list of distributors please call:

800 732 TURF

EarthWorks PO Box 278K, Martins Creek, PA 18063

GCSANJ MERCHANDISE AVAILABLE

GCSANJ has beautiful Glen Gate Herringbone Shirts and hats Available!

100% Cotton Golf Shirts

Sizes: Small, Medium, Large, Extra Large &

Double X

Colors: Red, White, Blue & Hunter

Green

Price: \$35.00 each
Hats one size fits all

Colors: Blue, White, Green

Price: \$10.00 each

Order through GCSANJ Please send check to GCSANJ 66 Morris Ave., Suite 2A Springfield, NJ 07081

Indicate color, size and quantity. Don't forget to include your name, golf course and shipping address.







THE OF THE PROCESS OF

GCSAA NEWS

GCSAA 4TH ANNUAL DELEGATES MEETING: STATE OF THE ASSOCIATION

by Wayne P. Remo, CGCS GCSANJ Delegate

On September 7-8, 1996, a meeting was held at the GCSAA Headquarters in Lawrence, Kansas. A total of 89 delegates were in attendance along with the present Board of Directors of the GCSAA and the prospective candidates for this year's election in Las Vegas. New Jersey was represented by its delegate, Wayne P. Remo, CGCS.

GCSAA President Bruce R. Williams opened the meeting and welcomed everyone. He began his report on the state of the association by reaffirming the now-shared direction and continuing trust between the GCSAA and the local chapters. He reported on the progress of the 1994 mandates of putting the

Introducing The Number One Fertilizer For Fighting Patch Disease And Fungicide Costs.

By using a fertilizer containing ammonium sulfate, you can reduce your instances of summer patch by as much as 80%.*

But if you've ever used ammonium sulfate in its pure form or in a blend, you know it can be a messy situation.

Fortunately, now there's Country Club® 16-4-8. A homogeneous fertilizer that offers the benefits of ammonium sulfate in a spreadable, easy-to-use form.

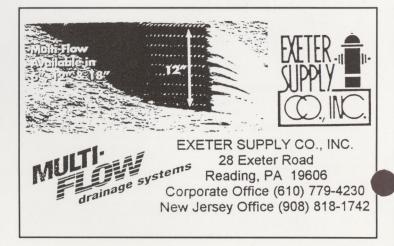


*Contact Lebanon Turf Products at 1-800-233-0628 for a free copy of the Rutgers Study on Reducing Patch Disease. house in order, improving relationships and getting the membership involved. Most of the 45 recommendations in the 1993 Arthur Andersen Study have been completed, and the few that remain are tied to member database system implementation. As planned, there was another study performed in the spring of 1996 to review our progress toward achieving the initial study's recommendations. A summary of the findings follows.

The progress of the 1995 Mandates of Image, Environment and Chapters was reported. The main goal of image was to enhance the image of the golf course superintendent. This resulted in programs such as Par for the Course on ESPN, developing a web site, new public service announcements, creating joint efforts with allied associations, creating a law-makers' information source, new member/chapter media and environmental guidebooks, a Greens & Grassroots Advocacy Manual and new image enhancement seminars.

Programs for the environment include: Pesticide Environmental Stewardship Program, Water Quality Study, Wildlife Research Support, Audubon Cooperative Sanctuary Program for Schools, Government and Environment General Session, Environmental Management Program, Environmental Resources Library, and Environmental Principles.

The mandate on chapters is to work with the chapters to serve members. This is being done with programs for the chapter and for the members through chapters. The affiliation process is moving along well, and I am happy to report that New Jersey will be in full compliance for affiliation as soon as GCSAA receives the final revised copy of our bylaws, which are now in conformity with the GCSAA. At the present time, only 11 chapters are at this stage toward completing the affiliation process.



COUNTE A COU

GCSAA NEWS

A new mandate has been added for 1996, which is Career Opportunities. The objectives are to improve marketability, create career opportunities, improve job stability, and to expand programs and services. These are being accomplished through programs such as: The Employment Referral Service, Resume and Cover Letter Assistance, A Career Development Resource Center, The Leader Board, and a Compensation & Benefits Survey.

Steve Mona, CEO, spoke next about some of the savings GCSAA has realized through challenging vendors. He noted 1.2 million dollars have been saved since 1994 and will increase to 2.3 million ending June 1997. Challenging staff vacancies is still continuing to determine if a full-time position is required for that department. There have been four departments added at Headquarters since 1994, with 14 people in those areas. These departments are focused to increase mem-

bership services. Steve is very proud of the staff at GCSAA Headquarters, and all are dedicated to continuing to improve membership services.

I, as your delegate, was proud to represent GCSANJ for the fourth year in a row at the annual delegates meeting. I am the voice for the GCSAA, the GCSANJ, and also you. Your involvement is welcome and encouraged. The direction taken at elections on candidates and issues is also that of the Board and officers of the GCSANJ, and not solely the opinions of the delegate. There are still 12 of the 178 voting members who are not registered to vote by delegate. Your voice is not being heard unless you vote at the annual election. I will once again be contacting you to register to vote. If you have any questions, I can be reached at (201) 736-2154 by phone, (201) 325-1964 by fax, or by letter mailed to Wayne P. Remo, Superintendent, Rock Spring Club, West Orange, NJ 07502.

We'll make your entire golf coursegreens, tees, and fairways - beautifully playable. And, we'll do it with environmentally sound plant nutrients and soil conditioners that encourage and enhance the biological processes which occur naturally in soil, plants, and grass.





STORR TRACTOR COMPANY

Distributors of Turf, Irrigation, Recycling Equipment, and Environmental Products & Services

3191 US 22 East Somerville, NJ 08876 (908) 722-9830 175 13th Avenue Ronkonkoma, NY 11779 (516) 588-5222

Serving the industry since 1945

Procedural and Operational Changes

	Fully	Not	In	
Recommendations Establish Cash Collections/Lockbox	Impl. X	Impl.	Process	Comments
Challenge Vendor Relationships	^		X	Vendor relations con-
Optimize Inventory Levels	X			tinuously challenged by
Streamline Purchase Process	X			management
Develop Business Case Based Budgets	X			
Improve Cash/Investments Management	X			
Simplify Supplies Inventory Process	X		.,	
Improve Service Surrounding Member Inquiries	~		X	Implementation of member database will
Establish Project Based Time Reporting Charge Graphic Designers' Time to Projects	X			improve call routings
Give Managers Access to Sick/Vacation	^			to key contacts
Time Balances	X			,
Dispose of Unused Conference Materials				
On Site			X	Some unneeded
Perform Spring Cleaning (Storage Areas)	X			conference material
Document Computer Systems Procedures	X			still shipped back
Sell Vans	X			
Use of Technology				
Develop Long-Term Technology Plan			X	Long-range plan com-
Utilize Scanner for Articles	X			plete w/member database
Give Main System Access to Staff			X	Full implementation
Use Fund Raising Software	X			with member database
Give Home Access to Systems Operator	X			
Implement GCM Desktop Publishing	X		V	Dealus ianus N/A ssiah
Develop System Back-Up Schedules Produce Certificates on Laser	X		X	Backup issue N/A with member database
Produce Text Slides Internally	X			member database
Integrate Rosters/Registration	X			
Produce Name Tags on Computer	X			
Utilize Voice Mail	X			
Network Laser Printers	X			
Training				
Implement Staff Continuing Education	X		V	0-11
Implement Software Training			X	Software training planned with member database
Implement Facilities Management Education	X			with member database
Policy Issues	^			
Provide Adequate Job Tools	X			
Clarify Vacation Policies	X			
Openly Communicate Staff Changes	X			
Communicate Advancement Opportunity	X			
Challenge Salary Ranges Annually	X			
Develop Formal Grievance Process	X		V	Information and analysis
Develop Formal Upward Evaluations Enforce Policy Consistently	X		X	Informal upward evaluations and Say-It-to-
Extend to 40 Hour Work Week	x			Steve program
Extend to 40 Flodi Work Wook	^			otovo program
Oiti Otti				
Organization Structure				
Realign Conference & Show Departmentally	X			
Finance Responsible for Budgets				
and Investments	X			
Establish Manager of Human Resources	V			
Position Establish Effective CFO/CEO Relationship	X			
Periodically Review Job Position and Titling	X			
1 enouically fleview Job Fosition and Titling	^			

THE GAMERICA. THE SOCIAL PROPERTY OF THE PARTY OF THE PAR

GCSAA NEWS

MORE WATER QUALITY DATA NEEDED FOR STUDY

GCSAA's Golf Course Water Quality Study has received a number of responses—especially from golf courses in eastern and southeastern states—to requests for the results of water quality monitoring projects, reports Amy Svrjcek, project coordinator for Environmental & Turf Services Inc. of Wheaton, Maryland. However, more responses are needed.

If your golf course has conducted, or if you know of golf courses that have conducted, water quality monitoring for surface water or ground water, GCSAA would like to use that information in the Golf Course Water Quality Study. Please contact Svrjcek at (301) 933-4700.

SUPERINTENDENTS ANNOUNCE OFFICER AND BOARD SLATE

by Wayne P. Remo, CGCS GCSANJ Delegate

Paul S. McGinnis, CGCS, has been nominated for the presidency of the Golf Course Superintendents Association of America (GCSAA). The association's 1997 election of officers and directors is scheduled for Tuesday, February 11, 1997, during its annual meeting at the GCSAA International Golf Course Conference and Show in Las Vegas, Nevada.

McGinnis, superintendent at Moon Valley Country Club in Phoenix, Arizona, currently is vice president of GCSAA.



Hardgoods - 201-473-3393

Nursery - 201-473-2749

Fax - 201-473-4402

To Keep Your Turf
Free from Disease & Insects

TERRE Co



has the
Turf &
Ornamental
products that
perform



The TERRE Co.

206 Delawanna Ave Clifton NJ 07014

GCSAA NEWS

Continued from page 13

The nominee for vice president is George Renault, III, CGCS, of Burning Tree Club, Bethesda, Maryland. Renault is currently secretary/treasurer of the association.

Nominees for secretary/treasurer are David W. Fearis, CGCS, of Blue Hills Country Club in Kansas City, Missouri, and R. Scott Woodhead, CGCS, of Valley View Golf Club, Bozeman, Montana. Both candidates are currently directors of the association; only Fearis' term is up this year.

Four candidates will vie for three director positions. The nominees are Jon D. Maddern, CGCS, Elk Ridge Golf Course, Atlanta, Michigan; Samuel R. Snyder, VII, CGCS, Hercules Country Club, Wilmington, Delaware; Michael Wallace, CGCS, Hop Meadow Country Club, Simsbury, Connecticut; and Tommy D. Witt, CGCS, Wynstone Golf Club, North

Flanaban's

Golf
Construction
Inc.

Turn-Key
Golf Course Construction

908-469-7782

TEE AND GREEN CONSTRUCTION
DRAINAGE • RETAINING WALLS
IRRIGATION • PONDS
OTTERBINE INSTALLATION

MEMBER OF NJ TURF GRASS ASSOC. & GCSANJ

Barrington, Illinois.

Michael Wallace is currently finishing his one-year appointment by President Williams as director of the association. Wallace was also appointed as director of the association in 1995 for a one-year term by then president, Gary Grigg, CGCS. Tommy Witt is completing his two-year term as director of the association.

If Scott Woodhead is elected as secretary/treasurer, then the newly-elected president, in accordance with GCSAA bylaws, will make an appointment to fill the director's seat vacated by him. David Fearis could be nominated from the floor for one of the three director positions available.

If David Fearis is elected as secretary/treasurer, there would not be an appointment by the newly-elected president for a director's position, as Scott Woodhead's term as director has one year left.

GCSAA's current president, Bruce R. Williams, CGCS, of the Bob O'Link Golf Club in Highland Park, Illinois, will continue to serve on the Board for one additional year as immediate past president.

Gary T. Grigg, CGCS, of the Royal Poinciana Golf Clul in Naples, Florida, whose one-year term as immediate past president expires, will end nine years' service on the GCSAA Board.

Board member Ken Mangum, CGCS, of the Atlanta Athletic Club, Alpharetta, Georgia, has one year remaining on his current term.

GCSAA's International Golf Course Conference and Show will be held February 4-12, 1997, at the Las Vegas Convention Center, Las Vegas, Nevada.





Atlantic Mills, Inc.

P.O. BOX 680 ASBURY PARK, NEW JERSEY 07712 IN NJ (908) 774-4882 FAX (908) 775-3288 OUTSIDE NJ (800) 242-7374

TEE TO GREEN ACCESSORIES, MAINTENCE & SAFETY ITEMS!

YOUR NEW JERSEY MANUFACTURER WITH ONE STOP SHOPPING. FOR CATALOG AND PRICING INFORMATION CALL 800-242-7374

Introducing New Daconil Weather Stik Fungicide. It Outsticks The Flowable Competition For Top Disease Control.

High magnification microscopy shows it. And laboratory wash-off studies, too. New Daconil Weather Stik fungicide sticks and stays like the competition can't. So when other fungicides might wash away, you can continue to count on Daconil Weather Stik for control of major turf diseases on both warm and cool season grasses. That includes Brown patch, Leaf spot, Melting out, Dollar spot, Anthracnose, Rust, Red thread, and Snow mold. Plus control of most ornamentals plant diseases and algal scum, too.

In addition, Daconil Weather Stik can be tank-mixed with a wide range of turf and ornamentals fungicides, so you can also count on it for broad-spectrum support of your systemics, as well as disease resistance management. Remember, there's never been a documented case of disease resistance to a Daconil brand fungicide in over 25 years.

And Daconil Weather Stik is more concentrated than prior formulations, so you'll have fewer jugs to get rid of, too. Which simply says from better protection to easier disposal, Daconil Weather Stik is the right flowable choice for you. ISK Biosciences Corporation, Turf & Specialty Products, 1523 Johnson Ferry Road, Suite 250, Marietta, GA 30062.

ISK BIOSCIENCES"



Fairway foxes

by Brian P. Donovan Packanack Golf Club

he time is 8:10 a.m. The dew clings tenaciously to each blade of grass, knowing its existence is numbered in minutes. I approach the first tee with anticipation, looking forward to a fine day, the camaraderie of my partners and the chance to observe wildlife. In particular, it is the red fox I am hoping to glimpse.

While most people would consider the red fox an animal to be found only in wilderness areas, they are increasingly sighted in more populated, suburban areas. Due to the expansion of the eastern coyote, red foxes have been forced into protected areas such as parks and golf courses.

Red foxes are found in most areas of North America, almost all of Canada and the United States except for Florida, some areas of Texas, the Rocky Mountains and coastal and Southern California. Red foxes are most commonly seen in early spring when vixens give birth to their kits. The male fox (dog) is with the vixen during mating season, January and February, and for some months after the litter is born. The dog helps with finding den sites (foxes move around to several dens to protect the kits from detection by predators) and providing food for the kits after they are weaned. Foxes live mainly on mice, squirrels, insects, fruits and an assortment of other food.

New Jersey was one of the first areas that red foxes were introduced to. They were brought over from Europe to develop a hardier breed of fox to improve hunting. The smaller and less durable gray fox prefers swamps and more thickly forested areas not suitable for horseback.

Though it seems these little members of the dog family (7-15 lbs.) have found a way to exist in our increasingly populated state, the limited boundaries of such areas as golf courses





provide a false sense of security to fox families. The young are forced to search for new, unoccupied areas they can call their own, and many are killed by traffic or starvation.

So the next time you are strolling down the fairway and you spot a fox, feel good knowing that the golf course is also a precious wildlife preserve.

Editor's Note: Doug Vogel spotted this piece at Packanac. Golf Club. Brian P. Donovan is a 9 handicap golfer at Packanack and an avid naturalist.

Are you attending the GCSAA Championship in Las Vegas?

or years, many GCSANJ members have attended the GCSAA Golf Championship and not participated as a member of any formal team. If you are going to Las Vegas and playing in the championship and want to be a member of a team sponsored by our state association, please contact Glenn Miller at (908) 528-6505 or Ed Walsh at (201) 731-1403.

If you have participated in the past and want to maintain an existing team, we will accommodate those requests. Let' coordinate our efforts this year so every GCSANJ member attending the tournament is part of our team.



by Ed Walsh, CGCS

hy are some professional golfers so dumb? Now, that question could get me in a lot of trouble, but before you get your gun and/or lawyer, listen to why I make that statement.

If you're like me, you watch a lot of televised golf tournaments. As a matter of fact, since the introduction of the Golf Channel, I probably watch golf more than any other programming. A few weeks ago I was watching the Presidents Cup. On Friday, it looked like we were going to bury the international team as the USA took a commanding lead. But on Saturday, we sort of faltered, and the internationals came roaring back. Well, if you watched the event yourselves, you



Sterilized Top Dressing

1-800-899-SOIL (7645) FAX (301) 335-0164

Our top dressing is formulated especially for your area to specifications recommended by leading universities and testing laboratories.

EXCLUSIVE! All materials are thoroughly mixed and sterilized by indirect heat in our special process. The sand particles are actually coated with a mixture of top soil and peat humus for a completely homogenous mixture that will not separate during handling and spreading.

Computerized blending of soil mixtures for a superior growing medium.

Green and tee construction materials and mixes conforming to specifications are available.

Custom on-site soil blending and testing with a **portable computerized blender** to meet your specifications are available.

know that the whole thing came down to the final singles match between Fred Couples and Vijay Singh.

Couples was plus one on the seventeenth hole and had a 25-foot putt for birdie, while Singh had a reasonably makeable 15-footer. Couples, we all know, rolled his in for the birdie and ran around the green high fiveing his teammates in a tremendous display of emotion. Singh stroked his putt confidently, but the ball rolled to the right of the cup, and we won the second Presidents Cup in what has to go down as an outstanding victory for the United States.

The next day we are all reading the accounts of the matches in the newspapers and see that Singh said his putt hit a SPIKE MARK which altered the direction of the ball. Now, as good as these guys are, I don't doubt that he did hit a SPIKE MARK, and it did push the putt away from its intended line. Isn't it a shame that a little SPIKE MARK could do such damage as to affect the outcome of a major event like the Presidents Cup?

Now, back to my original comment. That SPIKE MARK didn't have to have such a negative effect if one small item was considered. No, it's not one of those new putters that's won all the majors this year. No, it's not a titanium driver that hits it farther and straighter. No, it's not one of those wedges that can get you out of almost anywhere. The one small thing I am talking about is SOFT SPIKES. Yes, SOFT SPIKES.

Those little things that you put on the bottom of your golf shoes. Those little things that replace those hard metal spikes that can do damage to greens and, certainly, as Vijay Singh found out, produce marks on the putting surface that can alter the path of a properly stroked ball.

Now I could go on and on about the benefits of SOFT SPIKES, but Mr. Singh did enough by stating that his ball hit a mark made by a spike, and it altered the outcome of a very important event. Let me ask again, "Why are some professional golfers so dumb?" What else would you call a group of people who won't use, or suggest that people use, an item that will significantly improve the quality of the most important area of the courses we maintain, and they make their living on, the GREENS? I am sorry, but I've heard all the negative reasons for not using soft spikes, and none make any sense to me.

Let me state that all PGA Pros are not in this category, because there are many, Floyd, Colbert and Rodriguez from the Senior tour, who do use and recommend the use of SOFT SPIKES. Like Martin, Cameron, Pedrazzi and Koonz always tell me, "You got to be a little older before you really get smart."

NOTE: If you want to see a great report on the increased use of soft spikes in the metropolitan area, contact the MGA. Almost 200 clubs responded to their questionnaire, and over 80% have adopted a formal position or are giving strong consideration to adopting a position on banning metal spikes. Way to go, MGA!

Alliance for Environmental Concerns appoints new executive director

he Alliance for Environmental Concerns (AEC) is pleased to announce the selection of Nancy P. Sadlon as the new executive director. Along with its new executive director, the AEC will have a new address and phone number. Contact the organization at P.O. Box 4292, Warren, NJ 07059-4292; (908) 563-9252 or fax (908) 560-8588.

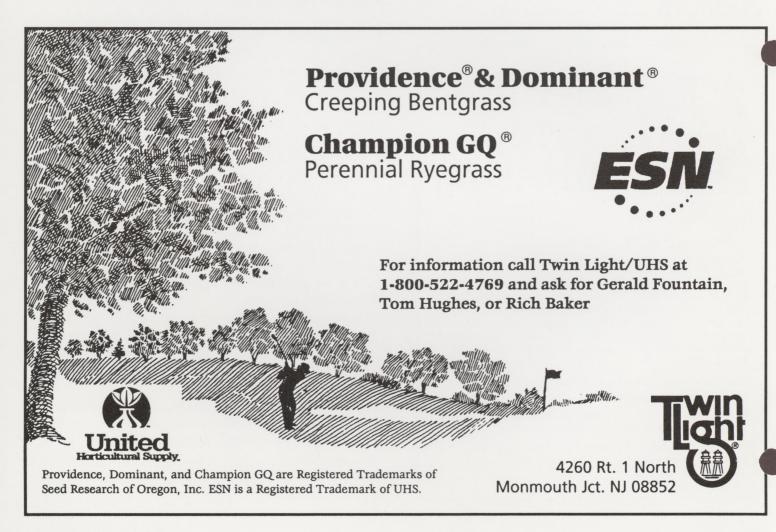
Sadlon brings to the position over 15 years of broad experience in environmental services and regulations. She has been involved with environmental issues and regulations for the past 14 years, most recently for the United States Golf Association as its environmental specialist. During her tenure with the USGA, Sadlon was responsible for the coordination and promotion of the Audubon Cooperative Sanctuary Program (ACSP), a conservation program for golf courses. She has provided guidance on wetland issues, habitat enhancement, pond management, erosion control, integrated pest management, water conservation and other environmental

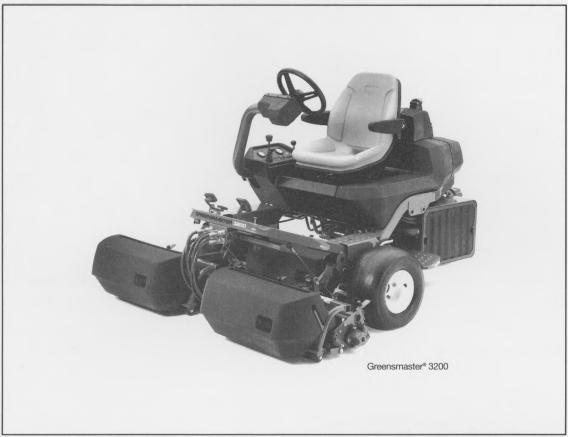
regulatory issues to golf courses throughout the nation as part of the USGA's Turf Advisory Service.

During her career, Sadlon has regularly made presentations on environmental issues, including updates on the USGA's Environmental Research Program efforts, the Audubon Cooperative Sanctuary Program and regulatory issues. Additionally, she has been an instructor for continuing education programs offered by organizations such as the Golf Course Superintendents Association, Michigan State Turfgrass Association and Rutgers University, regarding various environmental issues.

Sadlon holds a B.S. in Landscape Architecture/Environmental Planning and Design from Rutgers University, where she continued her postgraduate studies focusing on Wetland Ecology and Environmental Issues. Currently, she is a principle of Sadlon Environmental, an environmental consulting

Continued on page 25





The Toro Greensmaster 3200. The quietest liquid cooled gas or diesel greensmower available is also the most technologically advanced. Just ask Phil!!

Golf Irrigation Sales Department. Fred Rapp, Sales Representative Mike Pastori, Manager



Storr Tractor Company

Suppliers of Toro Commercial Turf, Ballfield, Irrigation, Recycling Equipment, BioPro Environmental Turf Care Products and RGF Wastewater Recycling Systems

It's that time of year

Deer Damage Prevention and Control Methods

he prevention and control of deer damage to agricultural crops, gardens and landscaping materials is a subject of concern to both farmers and homeowners in New Jersey.

A review of available techniques and materials for controlling deer damage is presented below.

Scare Devices: This technique can be used by both homeowners and farmers and, depending on the devices used, short term control may be achieved. A key to success with frightening devices is to take action at the first sign of a problem.

Homeowners may use devices such as a radio placed in a garden or flashing strobe lights to protect gardens of landscaping. Pie pans or similar items strung out so they bang together may be useful particularly in combination with other techniques. Dogs on a long run can also keep deer out of a limited area.

The best frightening technique for use by farmers is gas





exploders set to detonate at regular intervals. To use gas exploders, farmers must first obtain a permit from the New Jersey Division of Fish, Game and Wildlife.

Repellents: These materials are best suited for orchards, gardens and ornamental plants. They may, however, be use on row crops or pasture under certain conditions.

There are two kinds of repellents, contact and area. Contact repellents are applied directly to plants and repel by taste. They are most effective when plants are dormant. Generally, contact repellents should not be used on plant parts which are used for human consumption.

Area repellents are applied near the plants to be protected and repel deer by smell or odor alone. They are usually less effective than contact repellents, but can be used where contact repellents cannot.

The effectiveness of repellents depends on several factors. Rainfall dissolves several repellents, and some do not weather well. The number of deer in an area and the availability of more palatable food will also have a significant effect on the success of repellent applications. Repellents may be purchased at farm and garden stores. Usually the purchase of a small quantity is recommended until its effect can be evaluated.

The New Jersey Division of Fish, Game and Wildlife also distributes limited quantities of both contact and area repellents to farmers and homeowners experiencing deer damage. Further information on this program may be obtained by contacting the Division's Wildlife Control Unit at the Clinton Wildlife Management Area, (908) 735-8793.

A summary of easily available commercial repellents at as follows:

Continued on page 21

It's that time of year

Continued from page 20

- Hinder: This effective area repellent is unique since it may be used on food crops and may be applied in conjunction with pesticide sprays.
- Thiram: This fungicide is a common ingredient in a number of commercial contact deer repellents including: Chaperone, Nott Chew-Not, Hopkins 42-5 and Science Deer and Rabbit Repellent. Thiram-based repellents are most effective when applied to dormant plants.
- Fermented Egg Solids: This area repellent is relatively new and was developed for conifer plants in the west. Both liquid and powder forms are reliable and can be used in a wide variety of damage situations.
- Bone Tar Oil: This area repellent is applied by hanging rags, cord or sponge soaked in the material around the area to be protected. Information available indicates that this is one of the more effective area repellents.
- Hot Pepper Sauce: A formulation of two tablespoons of hot pepper sauce to 12 1/2 gallons of water containing an

- additive such as Wilt-Proof or Vapor-Guard has been reported to repel deer from ornamental plants.
- Moth Balls: Can be used as an area repellent, either hung

A handful of human hair placed in a small mesh bag and hung on the plant to be protected can be useful.

in mesh bags or scattered on the ground. Effectiveness is usually short term due to evaporation.

• Human Hair: A handful of human hair placed in a small mesh bag and hung on the plant to be protected can be useful. Reports on the effectiveness of this material have been mixed.

Continued on page 22

IF YOU WERE A TREE . . .

WHO WOULD YOU TRUST?

Over 70 Years of Excellence in Tree Care

Golf Course Programs Better Than PAR

OUR GOAL IS TO PRESERVE YOUR TREES!



(201) 445-4949

It's that time of year

Continued from page 21

Exclusion or Fencing: The only sure way to eliminate deer damage is to fence the deer out. However, the cost of constructing fencing for extended areas may limit their use. Commercial farmers in New Jersey may reduce the cost of fence installation by utilizing the New Jersey Division of Fish, Game and Wildlife's Deer Fencing Program. This program provides high-tensile wire in limited quantities at no cost to bonafide farmers who are willing to erect deer control fence to set specifications. Further information on the Farmer Deer Fencing Program may be obtained by contacting the Division's Wildlife Control Unit located at the Clinton Wildlife Management Area, RD #3, Box 309, Hampton, NJ 08827; (908) 735-8793.

Two types of fencing have been used to reduce deer damage. The exclusion fence is made of mesh wire at least eight feet high. Mesh wire of lesser heights (five foot) may be used if combined with barbed wire to provide a total height of eight feet. Fencing of this type, although effective, is expensive. Costs average between \$5.00 to \$6.00 per running foot.

The second type of deer fencing is the conditioning fence,

THE MOST PRODUCTIVE FAIRWAY MOWER

FEATURES:
116" cutting width
5 floating heads
7 mph cutting speed
4 wheel drive
38 hp Kubota diesel

FIGHT ACRES
PER HOUR

Double Eagle
EQUIPMENT COMPANY, INC.
285 Dayton-Jamesburg Road
Dayton, New Jersey 08810 • (908) 329-9292

which depends upon electric shock to provide a deterrent. Bot permanent and temporary designs are available.

At the present time, the Penn State 5-wire or the 7-wire modification is the only permanent electric fence which is recommended for inclusion in the Division's Deer Fencing

The only sure way to eliminate deer damage is to fence the deer out.

Program. This design has been proven effective and cost efficient when used with the high voltage, low amp, pulsed charging units.

Various forms of temporary electric fences exist ranging from single wire systems to multi-wire units. These temporary fences are best used in home gardens or in situations in which only short-term protection is required.

Shooting: Regulated hunting during the legal season is no doubt the most feasible method to effectively control deer damage. Commercial farmers may, however, request from the Division of Fish, Game and Wildlife permits to kill wild de which are damaging crops. Farmers requesting this type of permit should contact the Division's Wildlife Control Unit located at the Clinton Wildlife Management Area, RD#3, Box 409, Hampton, NJ 08827; (908) 735-8793, to arrange for an inspection of the properties. If a permit is warranted, a farmer and/or his agents may kill deer causing damage within the permit guidelines. It should be understood that permits to kill deer usually provide only limited relief from damage and are extremely labor intensive.

In addition, bonafide farmers and immediate members of their families who reside on the farm are eligible for a free "Farmer Permit" for each of the three permit deer seasons currently authorized: permit bow and arrow, permit shotgun and permit muzzleloader. The bag limit is two deer of either sex/permit. Farmers are also permitted to apply for the nonfarmer (regular) permits along with other licensed sportsmen and to purchase permits over the counter when available. Thus, the farm family has the opportunity of harvesting a substantial number of deer during the fall hunting seasons, providing another means of deer control and a source of recreation and venison.

If you have questions on any of the information presented here, please contact the Wildlife Control Unit for assistance controlling your deer damage problem.

Guide to deer-resistant ornamental plants

esistance of a plant to deer is related to the availability of other food and palatability which varies with plant age and the season. If there is an extreme shortage of natural food, few if any plant species are totally resistant to deer

The conservation officer of the Division of Fish, Game and Wildlife sometimes has repellents available. The office is in Clinton. The phone number is (908) 735-8793. There are many repellents commercially available also. All repellents must be replenished regularly.

The following should be considered as a general guide only. Deer will sometimes browse some of the plants listed, as they will sometimes avoid plants not listed. The common names of plants that are particularly resistant have been capitalized.

The list was developed in California where most deer are blacktails or mule deer. If you have made observations about ornamental plants that seem to be resistant to our white tails in the Northeast, please inform the Cooperative Extension Service at Cook College so that future lists may be made more useful for our conditions.



IRRIGATION SUPPLY, INC.

WHERE THE CUSTOMER COMES FIRST!

Products you Need when you Need them Competitive Prices From Drip to Golf **Educated Sales Team**

Parts for Every Manufacturer Technical Assistance

WE ARE THERE WHEN YOU NEED US MOST YOUR LONG TERM PARTNER

1120 Goffle Rd, Hawthorne, NJ 07506 201-423-0222 Franklin Rd, Dover, NJ 07801 201-366-2355 4475 S. Clinton Ave, S. Plainfield, NJ 908-753-5200 307 Washington St, Conshohocken PA 610-941-6662 314 West Basin Rd, New Castle, DE 302-328-3326 CALL FOR 1996 PRODUCT CATALOG 201-423-0222





TORO

Botanical Name

Abies spp Acer negundo Ageratum spp Althaca rosea Aquilegia spp

Arctotis atoechadifolia

Berberia spp Buxus spp Cactaceae spp Calendula olficinalia

Cassia spp

Catalpa bignonioides Cercis occidentalis

Chrysanthemum maximum Shasta daisy

Clematis spp Coptinus coggygria Cotoneaster spp Crataegus spp Cytiaus Scoparius Delphinium spp

Dicentre spectabilia Digitalis spp Ficus spp

Ginkgo biloba Gymnocladus Dioica

Hedera helix Helianthus spp Helichrysum spp Helleborus spp Ilex spp

Iris spp Juniperus spp

Knophofia uvaria

Lantana montevidensis

Larix decidua Lavandula spp Lupinus spp

Lysimachia nummularia

Maclura Domfera magnolia spp Mimulus spp

Myosotis spp Myrica californica

Myrtus communis Narcissus spp Oxalis oregana

Papayer orientale Parkinsonia aculeata

Common Name

Fir

Box elder

Flossflower, Ageratum

Hollyhock **COLUMBINE** African daisy Barberry **BOXWOOD CACTUS** Pot marigold

Senna, Cassia Common Catalpa

Red Bud **CLEMATIS SMOKE TREE** Cotoneaster Hawthorn

SCOTCH BROOM

LARKSPUR Bleeding Heart **FOXGLOVE**

FIG

Maidenhair tree Kentucky coffee tree **ENGLISH IVY** Sunflower Strawflower

HELLEBORE HOLLY IRIS Juniper

DEVILS or RED HOT POKER

Trailing Lantana European larch Lavender LUPINE Moneywort Osage orange Magnolia

Mimulus, Monkey flower

Forget-me-not **WAX MYRTLE**

Myrtle

DAFFODIL, JONQUIL OXALIS, REDWOOD SORREL

Oriental poppy Jerusalem thorn

Continued on page 25

Retirement: A long term game

by James K. Woods, registered representative with the Berger Financial Group, L.L.C. Mr. Wood specializes in personal investment and insurance planning.

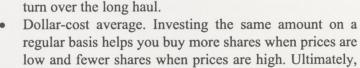
f you planted a tree on Monday, you probably wouldn't pull it out on Tuesday to see if the roots took. The same is true for growing your retirement savings. Short term market swings like the 170 point free-fall and 100 point gain on two consecutive business days last March by the Dow Jones Industrial Average can rattle any investor. But, you've got a retirement to plan.

Maintaining perspective is key to a successful investment strategy. Remember October 19, 1987? Dow dropped 22.6%, or 508 points—worst ever one-day fall. For a correction of the same magnitude to occur today, the market would have to drop 1,266 points.

How to weather the storms:

Remember the market has gone up over time. Even after falling 508 points in 1987, the market gained 5 points that year.

Diversify! spreading your investments among differasset classes (stocks, bonds, money markets), you also spread the risk which can increase your total re-



you pay a lower average price for each fund share. Hold on to your investment long enough to accomplish your financial objectives.

Time is your most valuable asset. Use it to your advantage.

Your Players Deserve the Rest!



SUPERIOR BENTGRASS SOD FOR GOLF COURSES

YES, players deserve the best bentgrass grown. Stormy Acres offers the highest quality bentgrass sod, washed or with soil. All of our sod is 100% guaranteed!

- Lowest height of cut 1/8"-5/32" for putting greens.
- Brushed-verticut-topdressed.
- Tee height of 1/4" or less, Fairway height 1/2" or less.
- Poa annua free
- Available: Penncross. Pennlinks, Providence, Dominant, Southshore, Crenshaw, L-93, A-4 and A-1.
- Contract growing.
- Expert installation available.

37 FORREST LANE CARNEYS POINT, NJ 08069 609 299 5109 Fax: 609 299 7146

Guide to deer-resistant ornamental plants

Continued from page 23

Phaedranthus buccinatorius Blood red trumpet vine

Picea spp Pinus spp

Rheum rhaponticum

Rhododendron spp

Robinia pseudoacacia Sambucus racemosa

Solanum spp

Symphoricarpos albus Syringa vulgaris

Spruce

Pine

Rhubarb, Pie plant

RHODIES (except azalea)

BLACK LOCUST RED ELDERBERRY

NIGHTSHADE

Snowberry

Lilac

Thuja spp

Torreva nucifera

Trillium spp Valeriana spp

Vinca spp

Yucca spp

Zantedeschia spp

Arborvitae

JAPANESE Torreya

TRILLIUM, WAKE ROBIN

Valerian Periwinkle

Yucca, spanish bayonet

CALLA LILLY

This information is provided courtesy of the Cooperative Extension Service, Cook College, Rutgers - University of New Jersey, New Brunswick.

Alliance for Environmental Concerns

Continued from page 18

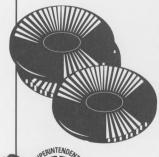
firm providing professional expertise on various environmental issues.

Sadlon takes the reigns of the Alliance from its former executive director, Ilona F. Gray, who held the position since 1985. Gray leaves the position to relocate to Germany with her husband. Her long-term contribution and long list of accomplishments has greatly strengthened the organization. The AEC is now focused on the future and excited about new ideas and opportunities for the organization with its new executive director.

Strike It Rich!



Golf Course Conference and Show



Strike it rich at the 68th International Golf Course Conference and Show held in the Las Vegas Convention Center. This will be an information-packed week of educational opportunities, the newest golf course products and services, and the chance to network with fellow professionals.

♣ Educational Seminars Thursday through Monday, Feb. 6-10

♣ Trade Show

Monday, Feb. 10, noon-6 p.m. Tuesday, Feb. 11, 9 a.m.-5 p.m. Wednesday, Feb. 12, 9 a.m.-5 p.m.

Distributor Preview Monday, Feb. 10, 9 a.m.-noon

♣ Educational Sessions and Forums Sunday through Wednesday, Feb. 9-12

♣ GCSAA Golf Championship

(Held at six courses) Tuesday and Wednesday, Feb. 4 & 5, Practice Rounds

Thursday and Friday, Feb. 6 & 7, Championship

Register Today!

1421 Research Park Drive • Lawrence, KS • 66049-3859

800/472-7878 • Fax: 913/832-4420





THE COMPUTER: A \$2 ROLLS ROYCE

The computer on your desk is the result of the most rapid technological evolution in human history, the equivalent of moving from a Model T to an Indy race car overnight.

According to The Computerized Society (Time Life Books, 1993), if you compare the computer to a car, the stunning speed of the computer's development becomes apparent.

Consider this: one of the first really powerful computers was the Electronic Numerical Integrator and Computer (ENIAC), which was installed at the University of Pennsylvania to calculate firing tables for World War II artillery. It was a marvel of calculation and was 1,000 times faster than previous calculating machines.

In size, it was 30 tons of equipment housed in a 30-foot by 50-foot room. It was expensive, well over \$3 million, and a glutton for special care. Its 18,000 vacuum tubes needed

humidity and temperature controls. Today, high school students use computers that are infinitely more sophisticated, many times faster than ENIAC, and far less expensive.

By comparison, if the automobile industry had progressed with the same efficiency and advancement, we would today be able to drive a \$2.75 Rolls Royce that would get 3 million miles to the gallon and which could cross North America in less than five minutes.

The fastest type of computer today is the supercomputer used to solve vast scientific research problems. It averages 10 billion operations per second. (By comparison, a personal computer used in business can do about 100,000 operations per second.) A problem a supercomputer solves in one second takes a personal computer about 33 hours to solve. Of course, the supercomputer can't match the honeybee. Its brain performs 10 trillion operations in a second.

Computers occupy a unique niche in our economy. They are highly reliable, but rapidly obsolete. A personal computer offered for sale one day and purchased the next already lags behind the state-of-the-art. A computer purchased in 1986 for \$2,500 would probably be worth from \$15 to \$50 in 1995, even if it is in perfect working order.

Reprinted with permission from Controlling Interest, December 1995

FUNGUS, FUNGUS, EVERYWHERE

No, not on golf courses, but on residential homes, cars, office buildings, plants and, in at least one case, a woman's hind quarters. This fungus, which grows mainly on mulch, is called the artillery or shotgun fungus because the spores are forcefully ejected from the fungus. The spores adhere as brown or black globs to nearby objects, favoring white or light colored clapboard or vinyl siding. Dr. Larry J. Kuhn, an ornamental horticulture extension specialist at Pennsylvania State University in University Park, said an attacked house can look as if it were spray-painted. According to Dr. Kuhn, this is a "naturally occurring fungus that's involved in the decomposition of organic matter. It's not a hazard in any way." Hazardous or not, it still creates an unsightly mess, which is not easily rectified. (With the exception of the unfortunate woman who noticed spots on her butt which matched the ones on her rhododendrons . . . she was able to wash them off.) Chemicals don't work, and scraping can remove the gunk but leave stains, as does scrubbing. Dr. Kuhn said the cause for the increase of this fungus could be related to the fact that recently more wood has been added to mulch which had been primarily bark. The wood has more carbon, he said, which feeds fungus. He recommends buying mulch which has the logo of the National Bark and Soil Producers Association. That insures that t contents are at least 90% bark. Watch your mulch and your butts.



Source: New York Times, July 11, 1996.

PATRON DIRECTORY

EVO USA CO.

Manufacturer of Fine Turf Chemicals Shaun M. Barry (908) 846-8173

AGRO-TECH 2000, INC.

Axis/Break-Thru/Biosafe Peter Van Drumpt - Chris Des Garennes Rich Brandel, (800) 270-TURF

ALPINE, THE CARE OF TREES

Complete tree care Michael Cook; (201) 445-4949

CENTURY'S AQUA-FLO

Legacy Golf Irrigation Equipment Phil DeMarco - Jerry Purcell Joe Porcello; (609) 561-1777

AQUATROLS CORP. OF AMERICA

Manufacturer of Water Management Products. Andy Moore - Phil O'Brien (800) 257-7797

ATLANTIC MILLS INC.

Tee Accessories, Towels, Detergent Peter Reitmeyer - Jack Brady - Laura Gammel (908) 774-4882

JAMES BARRETT ASSOCIATES, INC.

Irrigation Consulting & Design Jim Barrett; (201) 744-8237

BLUE RIDGE PEAT FARMS

Topdressing, Bunker Sand, onstruction Mix e Evans; (717) 443-9596

BRUEDAN CORP.

Golf Cars Peter Siegel - Michael Gesmundo (800) 535-1500

BARENBRUG USA/GARFIELD WILLIAMSON DIVISION

Turfgrass Seed Supplier John Farrell, Scott Mearkle (201) 209-0088

ALAN G. CRUSE INC.

Golf Course Materials Alan Cruse - Jim Cruse; (201) 227-7183

DE BUCK'S SOD FARM

Growers & suppliers of golf quality turfgrass sod Leonard M. DeBuck; (914) 258-4131

DOUBLE EAGLE EQUIPMENT CO., INC.Professional Turf Equipment

Professional Turf Equipment Clyde Ashton - Jerry Pearlman (908) 329-9292

E/T EQUIPMENT COMPANY

John Deere, "Distributors of Quality Turf Equipment" Dick Neufeld Tom Fallacaro; (914) 271-6126

EARTH WORKS, INC.

The Soil Restoration Specialists Patrick Lucas, CGCS - Erik Zars (800) 815-1113; (203) 698-0030

TH WORKS

Manufactuers of Natural Organic Products Joel Simmons; (800) 732-TURF EGYPT FARMS, INC.

Greens Topdressing, Tee Divot Mix, Construction Mixes, Aqua Aid Wetting Agents, Bunker Sands, Shaws Fertlizers Gary Ackerson - Dean Snyder - Ray Bowman; (410) 335-3700; (800) 899-7645 Fax (410) 335-0164

EXETER SUPPLY CO., INC.

Wholesale, Retail Sales of Water & Sewer Works Materials. Robert C. Diefenderfer - Randy Moore Brian Barnes; (610) 779-4230

FERTL-SOIL TURF SUPPLY, INC.

Suppliers of Golf Course Supplies, Top Dressings, and Construction Soil Marty Futyma - Cathy Futyma (908) 322-6132; Fax (908) 322-6332

FINCH TURF EQUIPMENT INC. & John DEERE ALLIED PRODUCT

Sam Baird - Ray Finch - Michael McLaughlin (800) 875-8873; FAX (215) 721-2833

FISHER & SON CO., INC.

Turf & Horticultural Supplies Alan Phillips; (609) 478-6704

FLANAGAN'S LANDSCAPE-IRRIGATION CONTRACTOR, INC.

Building Greens, Tees & Irrigation Robert J. Flanagan, Sr. - Roger P. Flanagan, Jr. - Christine Flanagan (908) 469-7782

GOLF CARS, INC.

Club Car Golf Cars and Utility Vehicles, Sales, Service Jon F. Schneider, Genl. Mgr. - John A. Czerwinski, Sales - Linda A Szymanski, Sales Manager (215) 340-0880; FAX (215) 340-1634

GRASS ROOTS, INC.

Golf Course Supplies Ken Kubik - Jay McKenna - Keith Kubik (201) 361-5943

REES JONES, INC.

Golf Course Design Rees Jones; (201) 744-4031

STEPHEN KAY, GOLF COURSE ARCHITECTS

Renovation, Master Planning, New Course Design Stephen Kay - Ron Turek - Doug Smith (914) 699-4437; FAX (914) 699-4479

KOONZ SPRINKLER SUPPLY INC.

Distributors Turf Irrigation William F. Koonz, Jr. (201) 379-9314

LESCO, INC.

Manufacturer & distributor of green industry products Greg Moran - Lance Seeton (800) 321-5325

LEON'S SOD FARMS

Sod Grower Samuel Leon; (908) 996-2255

LONGO INDUSTRIES

Electric Motor/Pump Repair/Sales Bob Tal - Bob Clader (201) 539-4141 **RALPH MCGILLAN EXCAVATING**

Lakes & Ponds Ralph McGillan; (609) 655-2281

JOSEPH M. MERCADANTE, INC.

Paving, Excavating, Cart Paths, Tee and Trap Construction, Golf Course Construction Joseph Mercadante - Robert Mercadante (201) 467-8622; FAX (201) 467-8419

METRO MILORGANITE, INC.

Turfgrass Supplies Rick Apgar - Scott Apgar - Joe Stahl (914) 666-3171; FAX (914) 666-9183

MONTCO/SURF-SIDE/ZAP!

Wetting Agents & Zap! Defoamer Bob Oechsle; (800) 401-0411 (215) 836-4992; Fax (215) 836-2418

MUNTHERS SPRAYING SERVICE INC.

Complete Golf Course Turf Spraying Larry Munther; (201) 540-9764

NATIONAL SEED COMPANY

Lawn & Specialty Seeds Ken Griepentrog - Sky Bergen -Barry Van Sant; (800) 828-5856

P & P EXCAVATING INC.

Excavating, Ponds & Lakes Bob Laner (201) 227-2030; (201) 227-2819

PARTAC PEAT CORPORATION

Top-Dressing & Construction Mixes, Golf Hole Targets, Turf Blankets & More Jim Kelsey; (908) 637-4191

PAVALEC BROS. GOLF COURSE CONSTRUCTION CO., INC.

Golf Course Construction Anthony Pavelec; (201) 667-1643

PENNINK ARRIMOUR INC.

Golf Course Restoration & Construction Tom Ristau; (215) 659-6411 Fax; (215) 659-9317

RHONE-POULENC/CHIPCO

Turfgrass Chemical Manufacturer Greg Hutch; (908) 929-4657

PLANT FOOD COMPANY, INC.

Manufacturer of Fluid Fertilizers Ted Platz - Anthony "Rip" Rippel (609) 448-0935; (800) 562-1291 FAX (609) 443-8038

PRO-LAWN PRODUCTS

Professional Turf Products: Seed, Chemicals & Fertilizer Craig Lambert; (201) 663-3368 Ingrid Kern; (215) 321-1232 Brad Simpkins; (609) 758-7620

GEO. SCHOFIELD CO., INC.

Golf Course Materials, Topdress, Rootzone Bunker Sand, Gravel & Landscape Materials. Kevin Schofield Robert Carson - Thomas Casmer (908) 356-0858 RIGGI PAVING INC.

Asphalt Paving & Concrete Contractors Frank S. Riggi, Sr. - Frank S. Riggi (201) 943-3913

SEACOAST LABORATORIES/TWIN LIGHT FERTILIZER & SEED COMPANY

Fertilizers, Grass Seed Gerald Fountain, Richard Baker; (908) 438-1300

THE SCOTTS COMPANY - PROTURE DIV.

Turf Fertilizers, Growth Regulators, Seed & Protectants; Fran Berdine, (914) 361-4105 Steve Rudich, (610) 253-4003, Jim George, (800) 543-0006

SHEARON ENVIRONMENTAL DESIGN

Golf Course Design and Construction Chip Kern (609) 466-0666; (215) 828-5488

STORR TRACTOR COMPANY

Turf Equipment, Irrigation, Environmental Products & Service Phil Scott, Paul Granger, Dr. Karen Plumley; (908) 722-9830

WILLIAM STOTHOFF CO. INC.

Well Drilling & Pump Repairs David C. Stothoff - William E. Snyder (908) 782-2717

STULL ENTERPRISES T/A STULL EQUIPMENT COMPANY

Industrial Turf Equipment John Barrow - Charles V. McGill, Jr. (610) 495-7441

SWEENEY SEED COMPANY

Turfgrass Seed Jeffrey Shockley - Andrew Sweeney (215) 275-2710

TEE AND GREEN SOD INC.

Sod Supply and Installation.
Owen Regan - David Wallace
(401) 789-8177

THE TERRE CO. OF N.J., INC.

Golf Course Supplies Brian Feury - Byron Johnson -Pat O'neil (201) 473-3393

TURF PRODUCTS CORP.

Golf Course Supplier Buddy Rizzio - Ron Lake - Jim Dempsey (201) 263-1234

WA CLEARY CHEMICAL CORP

Turf & Horticulture Chemicals Bryan Bolehala - Mike Bandy (908) 329-8399

WILFRED MCDONALD, INC.

Turf Equipment Specialists
Dennis DeSanctis - Blair Quin - Mike Pelrine
(201) 804-1000

STEVEN WILLAND INC.

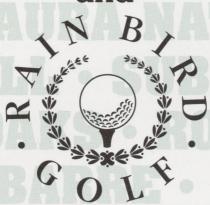
Turf Equipment Distributor Mark Ericson - Bruce Pye - Bill Rapp (201) 579-5656

New Patrons for 1996

What do the superintendents of these prestigious golf courses have in common? They use the services of...

KOONZ SPRINKLER SUPPLY

and



SERVICE EXCELLENCE

- Complete inventory
- Service assistance and technical support
 - 30 years of service to the golf industry

QUALITY PRODUCT LINES

Distributors of:

Nightscaping • NDS Drainage Products
 ADS Drainage Products



Keeping the golf world greener.™



Fertigation Solutions To Grow On



GAS & ELECTRIC FANS PORTABLE, PERMANENT, OSCILLATING



KOONZ Sprinkler Supply, Inc. Golf Division • 201-379-9314

39 Waverly Avenue, P.O. Box 55, Springfield, NJ 07081 • 201-379-9314 Fax 201-379-6504 2479 Yellow Springs Road, P.O. Box 433, Devault, PA 19432 • 610-647-1604



For sales information in Northern New Jersey/Southern New York State please call **Bill Koonz**, **Jr.** or for Southern New Jersey/Eastern Pennsylvania sales please call **Robb Werley**