Official Publication of the Golf Course Superintendents Association of New Jersey

THE GREENERSIDE

November-December 1992 Volume 15 Number 6

Total quality turf at the GCSANJ Invitational

The turf landscape at Knickerbocker Country Club in Tenafly is graced by fast putting greens, tight fairways and dense teeing surfaces. This level of conditioning has been reached by a solid turf program managed by Sam Juliano, the golf course superintendent at Knickerbocker. He has combined a comprehensive nutrient, pesticide and mechanical program with



Knicker Bocker C.C. Clubhouse

There is no recipe or exact formula for a course to respond like Knickerbocker. We can outline the program used there, but a different agronomic situation could easily create a different response.

(Please turn to page 4)

the use of the latest turfgrass growth regulators. The results are spectacular, but like any commitment to total quality, Sam is working harder for greater perfection. Shaun Barry and Dave Vogel provide additional insight into the Invitational and the Knickerbocker CC in their articles in this newsletter. This article focuses on the greens and fairway programs used to achieve this great playing surface.

Knickerbocker has a long tradition of fast greens. These have been managed in more or less a traditional way with low mowing heights, high irrigation rates, low fertility and frequent cultivation by Jeff Scott as the golf course superintendent. Jeff had experimented with the use of turfgrass growth regulators to study how they might be used in a Poa annua to bentgrass conversion program. When Sam came on board as Jeff's first assistant in 1986, he brought considerable experience to Knickerbocker. Sam started his professional career in his home town of Pittsburgh working at the Oakmont CC under the tutelage of Paul Latshaw. Sam helped prepare for the club's hosting of the U.S. Open. He graduated from Delaware Valley College and apprenticed at Fiddlers Elbow with Dave McGhee in 1984. In 1988 Sam succeeded Jeff Scott as superintendent and continued the fairway conversion program.

In this issue



Editorial	2
President's Message	3
GCSANJ NEWS	7
Approach to necrotic ring spot	11
Letter from NJSGCMA	12
GCSAA News	13
Baltusrol getting ready for U.S. Open	14
X marks the spot	15
Yours in turf	16
The back nine	18

THE GREENERSIDE

GCSANJ Newsletter is published six times a year by the Golf Course Superintendents Association of NJ, 66 Morris Ave., P.O. Box 359, Springfield, NJ 07081

> Ilona Gray, Editor Glenn Miller, Ken Krausz, Newsletter Business Staff Douglas Vogel, Edward Walsh, Shaun Barry, Paul Powondra Contributing Writers

Please address inquiries to: The Greenerside, Editor, P.O. Box 3672, Wayne, NJ 07474-3672.

For Ad Placement: Ilona Gray, (201) 595-7172

Art and Typography by Alampi & Associates Corporation, Springfield, NJ

© 1992 THE GREENERSIDE

GOLF COURSE SUPERINTENDENTS ASSOCIATION OF NEW JERSEY

66 Morris Ave., Springfield, New Jersey 07081

Officers:

David Pease, President Chris Carson, Vice President Thomas I. Grimac, CGCS, Secretary Martin G. Mantell, CGCS, Treasurer Stephen P. Finamore, CGCS, Past President

Directors

District 1 Ken Krausz, CGCS David Mayer District 3

Paul Powondra Glenn A. Miller

District 2
Ron Mencl

District 4

Ron Mencl Ken Thompson Chris M. Gaynor, CGCS John Carpinelli

Executive Secretary
Judy Policastro

Commercial Representatives

Steve Chirip Shaun Barry

Opinions expressed in this Newsletter are the opinions of the authors and do not express the opinions or policies of the GCSANJ Board and its membership.

EDITORIAL



Thankfulness

hat an unbelievably busy season 1992 turned out to be. It was hectic from the first warm day in March right up to leaf fall, It's

easy when things are going so fast to forget to be thankful. Maybe that's why Thanksgiving is in November and not May. I don't know. But when the moment comes for reflection, you can begin to see all those events, people, and things that we can be thankful for. I call those "thankfuls." Sometimes it's the truly little things that collectively make up a big thankful. There must be millions of blades of grass on a golf course. Each one of those amazing biological engines pull carbon dioxide from the air and release oxygen, and for that I am thankful. We had ample water this year for the first time in many years, and although this may have made for difficult and damp playing conditions, it also made for truly spectacular grass on many courses throughout the state. There are numerous things in nature that are "thankfuls." There are a few of this world's creatures that maybe we can do without. Again, a little reflection will point out that even the hated mosquito serves a purpose that we can be thankful for. Its larvae is food for fish.

GCSANJ members share their time, ideas, and assistance with one another. Any member who has given or received feels that sense of sharing and understands that being a member of GCSANJ is a special "thankful." The contributors, readers and advertisers to "The Greenerside" understand that mutual sense of sharing as well. People, whether they are family, friends, co-workers, your boss or those you supervise when working or playing or doing anything that creates a common denominator, create their own special opportunity to be thankful. In our rush through the day we often forget that without other people and a purpose, our lives are diminished.

Things, separate from people and activities, are often objects of desire, but are rarely "thankfuls." The best mowing equipment, without the people or the need to mow, is hardly worthy of a "thankful". But put that equipment with a good crew and healthy turf, and you can be clearly thankful that you've got it.

Make this holiday season a thankful season. Take a moment everyday to be thankful. Reflect on what happened that day and find something to be thankful for.

Ilona F. Gray Editor

PRESIDENT'S MESSAGE



"Un-Core"

David Pease President, GCSANJ



s fate would have it, I expected to be basking in the sun off of Key

Biscayne . . . NOT! Due to an error in my chronological planner, this space in "The Greenerside" was to be reserved for the next President of the GCSANJ. Little did I know, I was prematurely retiring from the Presidential duties of informative prose. The one liners were endless: "Thank God he's outta here!", "Just when you thought it was safe, he returns!", and, of course, in years past I have ignored this one on occasion, "It's last call, you don't have to go home, but you can't stay here!".

Well, I'm back, and I'm bad to the bone for an encore performance.

The executive board, under the direction of the Organizational Study and By-Laws Committee, has been putting together a long term plan. This plan will represent the direction this Association will be taking. The GCSANJ has established financial credibility, giving our Association a fiscal foundation for operating flexibility. Areas for future expansion consist of streamlining our Membership categories and acquiring supplementary resources to support and extend our Research programs. We plan to extend Membership Services to include a Benevolent Foundation (a completely separate foundation within the GCSANJ). Educational opportunities will be expanded for members. This educational expansion will include the financing of educational grants on an aggressive level for those who will follow in our footsteps. The executive board is continually looking inward in order to move forward.

The development of a long term plan is done through research. Research is done through polling. The members of the GCSANJ will be receiving a number of surveys this Fall. The Club Relations Biannual Golf Course Superintendents Survey is being distributed. Secondly, you will be receiving an extremely important questionnaire regarding GCSANJ Membership Services. PLEASE RESPOND!!! Filling out surveys can be a pains taking task, but, and it is a BIG BUT, it is extremely important that you, as members, fill out those surveys. The surveys are not only for personal and professional use, but they are

used as a barometer to govern the direction of GCSANJ.

In addition, if you should have any suggestions, ideas, or comments, please forward those concerns to your committee chairman so action can be taken. You do not need a survey to make your concerns known. Your input is paramount as to the direction this association will be taking, especially with our long term plan.

Calendar

November 19

Annual Meeting - Hollywood Golf Course, Host: Bob
Tosh, (908) 531-3609.

Alliance for Environmental
Concerns - Pesticide
Control Code Workshop
and Seminar - Garden State
Parkway, Exit #135, Clark,
NJ. Contact: Ilona Gray,
(201) 595-7172.

December 1-3

New Jersey Turfgrass Expo
- Somerset Hilton, Garden
State Exhibit Center. Contact

NJTA, (908) 821-7134.

Jan. 4-March 12, 1993 Rutgers Professional Golf

Turf Management School (Winter Session) - Cook College/Rutgers University, New Brunswick, NJ. Contact: Office of Continuing Professional Education, (908) 932-

9271

January 5-7 '93 Introduction to Golf Course

Turfgrass Management-Cook College/Rutgers University, New Brunswick, NJ. Contact: Office of Continuing Professional Education (908) 932-9271.

January 23-30, 1993 64th International Golf

Course Conference and Show - Anaheim, CA. Contact: GCSAA, (913) 832-

4430.

March 4-5, 1993 Golf Course Wastewater

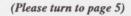
Symposium - Newport Beach, CA. Contact: Dr. Kimberly Erusha, USGA,

(908) 234-2300.

GCSANJ Invitational Quality Turf

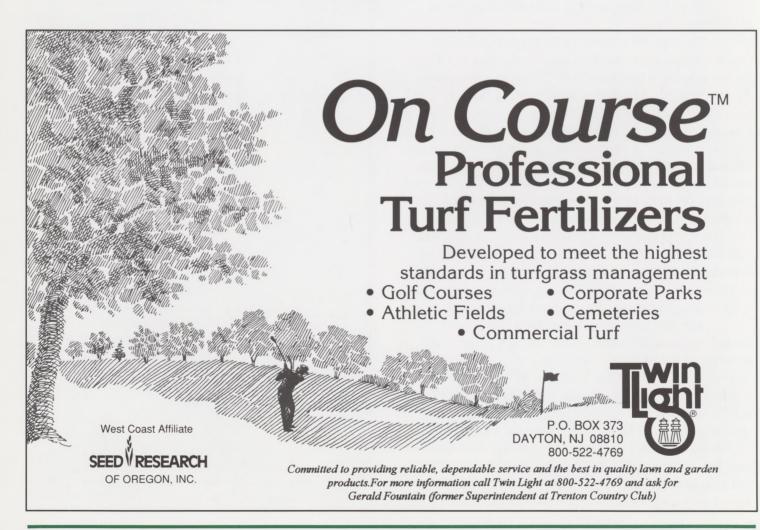
(Continued from page 1)

Sam started with a 1/2 rate of Scott's TGR on the greens in the spring of 1988, setting in motion a new era of very intensive greens management at the club. This application was designed to suppress the Poa annua and foster the development of bentgrass. The Greens Committee was, of course, informed of plans and came to fully support the program. Sam explained the downside risks of this program as well as the potential benefits. One of the risks is the discoloration of the greens, which can be a real problem if not well communicated in advance. The program started with an estimated 75% Poa annua population. One of the key points to keep in mind is that a turfgrass regulator will only suppress the plant and not kill it. After application, the TGR began slowing the growth, the greens became discolored and remained so through the second week of June. As the efficacy eased, the greens returned to their normal physical state and color. A second 1/2 rate was applied in August and was followed two weeks later with hollow tine aerification (plugs removed), a topdressing and seeding.





Sam Juliano (right), superintendent of the Knickerbocker Country Club in Tenafly, poses with his brother, Michael, who is the assistant superintendent.



GCSANJ Invitational Quality

(Continued from page 4)

The following year the program was continued with one change: the rates were increased to 3/4 rate. Sam was confident at this point that they were in a successful venture and would achieve their goals of reducing the Poa annua population. This would help maintain green speed. Sam continued the fall aerification, topdressing and overseeding program with

topdressing and overseeding program with excellent results. The same program was duplicated in 1990 and 1991 and, again, proved to have the desired effect.

This year a change was made in the grass growth regulator used. Sam substituted Cutless from DowElanco for the Scott's TGR.

Cutless was applied as a sprayable every two weeks in the spring at a rate of five ounces per acre and in the summer at a rate of two ounces per acre. The final application in late August was made at the five ounce per acre rate. Sam made the change for three reasons: ease of application, less discoloration, and the absence of a fertilizer combined with the Cutless.

Throughout the program adequate nutrient levels were maintained with the guidance of comprehensive soil testing and a qualified interpretation of those results. Knickerbocker employs the services of a turf consultant, Richard Psolla, to interpret those results and make recommendations. Irrigation schedules are carefully maintained as well. There has not been a significant drop in water use since the program began. Pesticide practices are integrated with other maintenance activities. There was no significant change in disease incidence with the replacement program.

With this commitment to agronomic input, mowing becomes the next key piece of the program. The greens are mowed six times a week. With the use of the grass regulators there has been a considerable drop in the amount

of clippings taken off the greens. The walking mowers are normally set at 1/8th of an inch. In preparing for the GCSANJ Invitational, the mowers were dropped to 7/64ths, which resulted in a stimpmeter measurement of 10'8" for

the morning of the event. The heavy showers later that day slowed the speed, but didn't upset the trueness of the surface.

Sam's greens program is in its fifth season and has been very successful. Bentgrass population now exceeds the 70% mark; greens putt fast and true; golfers respect the greens and the slight discoloration is accepted by everyone.

Fairways offer a different challenge, and, here too, Sam Juliano was up to it. Jeff Scott had worked on a Poa annua reduction program in 1986, experimenting with four bags of the then newly released Scott's TGR. The product was applied to the 16th fairway. The initial reaction from Jeff was, "It looked awful, there was too much Poa." Prior to this small application he had been collecting clippings in an attempt to reduce the Poa annua

(Please turn to page 6)



RALPH McGILLAN

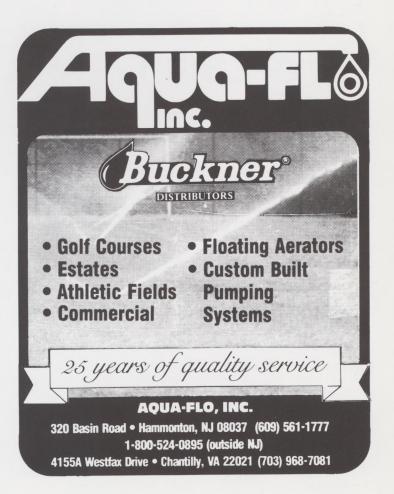
Excavating Contractor

Specializing in Lakes & Ponds

Over 25 years experience in building new ponds, enlarging & redesigning existing ponds.

Can get all DEP permits

(609) 655-2281 17 Stockton Drive, Cranbury, NJ



GCSANJ Invitational

(Continued from page 5)

population. Jeff recognized that the dramatic discoloration resulting from the TGR application could be an effective tool to suppress the Poa. Jeff applied a full rate (0.5 lbs a.i.) of Scott's TGR to all the fairways the next year. After the growth regulation activity stopped, the fairways were aerified and overseeded with bentgrass. Early the following spring, it was evident that the material had worked, and there was a high percentage of bentgrass present in the fairways.

In 1990 Sam changed the fairway program to the DowElanco Cutless product. In 1991 he started using a lighter weight Toro 223 which replaced the heavier Toro 350D. This year the Knickerbocker Board of Directors instructed the Greens Committee to suspend the fairway conversion program for one year. The object of this suspension is to observe the fairways and determine if there is an increase in the Poa population. The results of this suspension probably will not be known until the spring of 1993. The Poa could increase if not suppressed.

Undoubtedly the great condition of the course helped make the GCSANJ Invitational an enormous success. The teams that played, and the fortunate ones that won, came away from the golf course knowing they had played on a championship course. The course played like a true champion. It is a credit to the superintendent, his staff and the membership of the club for making Knickerbocker the great course it is.

Sam Juliano has combined the requisite components for success in any mission: a commitment to quality, an understanding of the technology, explaining and selling his plan to all those affected, dealing with the tradeoffs that change brings, and remaining flexible. The Knickerbocker commitment to quality gave the GCSANJ players an outstanding time and an education as well.

James F. Gilligan, CGCS Richmond County CC

awn GCSAA 1993

64th INTERNATIONAL
GOLF COURSE
CONFERENCE AND SHOW
JANUARY 23-30, 1993

TRADE SHOW

GOLF CHAMPIONSHIP

EDUCATIONAL SEMINARS

GCSAA ANNUAL MEETING

ANAHEIM CONVENTION CENTER
ANAHEIM, CALIFORNIA

Pro-Lawn...

Products you need, people you can count on. Whatever your turf-management needs.

- FERTILIZERS
- CHEMICALS
- TURF SEEDS
- CUSTOM MIX

Pro-Lawn has a turf-management expert in your area.

Call Today! 1-800-437-9618

Lake Hopatcong, NJ 07849 Craig Lambert (201) 663-3368 Langhorne, PA 19047 Ingrid Kern (215) 750-1732

Wrightstown, NJ 08562 Brad Simpkins

The future of turf management





NEW ADDITION

Congratulations to Chris and Carol Carson on the birth of their new baby boy, Andrew John. He was born on August 15, 1992, and weighed in at 7 lbs. 14 oz., 22" long.

WHO INVITED THE RAIN

If you were lucky enough to attend the Invitational at Knickerbocker CC, you know how close we were to canceling this year's event. Most of the 32 teams were enjoying lunch and mentally planning what else they could do that afternoon. Between the heavy showers, lightning and accumulated rain, the chances of golf seemed small. The rain slowed, the lightning stopped and Sam Juliano gave his OK (after checking with Mike Juliano and The Weather Channel).

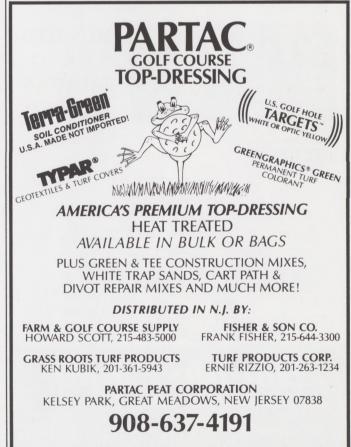
Once out on the course, everybody was surprised. Maybe it really had not rained on this side of the road.

There was no standing water and the greens were lightning quick. How fast are these greens when they are dry was a standard question. I know I would be chipping back onto a lot of them if they were any quicker. During the round there were a couple of quick showers but everybody



Dave Pease (right), president of GCSANJ, hands Sam Juliano a plaque of appreciation for hosting the Invitational.







(except Wayne Warms, Manasquan River CC) made it in before the rains came again.

In spite of the weather, we had some wonderful individual performances. **Ed Whitman** (Knickerbocker CC) had 6 birdies and shot 66. **Angelo Petraglia** (Deal) shot a 72 for the best amateur score. Neither of these great efforts was enough to give their team the victory.

Jim Gilligan and Bernie Kosinski had a 60 to win the Supt-Pro Trophy and they also combined with Nick Gatos and Tom Sullivan to shoot a 55. This score allowed them to win the team event which was a first for Richmond County CC. Sam Juliano and Ed Whitman came in second in the Supt-Pro with a 61. Steve Finamore helped Alpine to finish second with a 59 in the team event, while Wayne Remo and Rock Spring (59) finished third on a match of cards. Art O'Keefe (Tamcrest) had the longest drive and the four winners on the closest to the pin contests were Ian Kunesch, Bob

FEATURES...
Wide 100" Mowing Width.
Progressive, Selective, All-Wheel Drive.
Independent Full-Floating/Pivoting Reels.
Easily Adjustable Height of Cut.
Choice of Onan 24 hp Gas or Kubota
22 hp Diesel Powered Engine.

BUNTON

FAIRWAY
MOWER

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

Baldwin (Echo Lake), Charlie Moore (Hackensack), and Gary Danback (Alpine).

Knickerbocker CC did a great job especially under these adverse conditions. Thanks for hosting this event and I hope we can all return soon.

Shaun Barry

DISTRICT II NEWS

The District II meeting at Madison GC gave many people their first look at one of the oldest golf courses in the country. Some of the holes have changed over the years, but it is still located on the same site as when it started as a golf club in 1896. This club respects its place in the history of golf. They may have turned down an opportunity to be a charter member of the USGA but they still know what golf and golf courses are all about. They have tried to keep the feel of an old Scottish golf club. This sense of Scotland was so strong it forced Chris Carson to play a complete round. He was awaiting the birth of his third child and was just going to stop and say hello. Five hours and many telephone calls later he left smiling. This was the same feeling felt by our entire group.

Mark Sinto continues the long line of great superintendents who have helped Madison GC remain so special. The conditions were great and the course was a pleasure to play. Our golf, however, was not a pleasure to watch. This was due to extra pressure. Not only were we picking the District Team but Madison's president, Nick



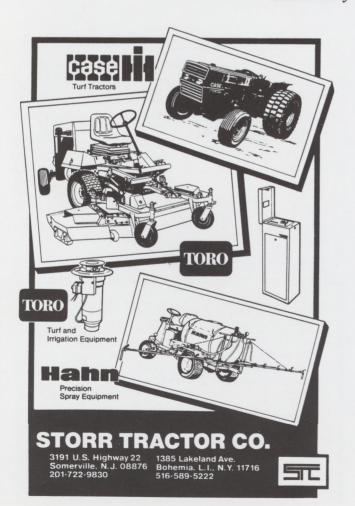


Lyons, offered a free membership to anyone who could break par. John Hyland went so far as to pick out his new locker, but, like the rest of us, he failed to tame the course. We did, however, stay longer than usual on the course because Mark had arranged for night golf. What a wonderful experience.

After a great steak dinner we sorted out the winners. On the District Team are Rich Brandel (75), Larry Dodge (75), Dennis Wrede (77), Pete Pedrazzi (78), Jack Martin (78), and Vinnie Bracken (83). Shaun Barry had low gross (72), and Rich Brandel was second. Vinnie Bracken (58) was low net winner followed by Jack Martin (61) and Pete Iosso (62). Larry Dodge won the long drive. Tony Toto won two closest to the pins and Mike Caravella and Jack Kramer had one each.

Thanks again to everyone at Madison GC for such a great time.

Shaun Barry



DISTRICT III NEWS

Deal GC may have the perfect name when we think what a superintendent has to do. District III had a meeting scheduled for August 20, and 74 people were expected to attend. Six inches of rain and 2 greens under water forced Angelo Petraglia to "Deal" with these problems. The meeting had to be held a week later, and now Angelo had to "Deal" with us interfering with a busy tournament schedule. Our meeting eventually was held on August 27 and, between Angelo, his staff and Joseph DeKovacs, all problems were dealt with. That just left us ready to challenge the course.

Only one person was up to the challenge and that was our host superintendent. Angelo not only had the best gross score (70), he won the longest drive and was just beaten out by **Peter Van Drumpt** for the closest to the pin. In addition to this, he had the only skin to hold up. This might explain why Deal GC wants to host all of our monthly meetings in 1993.

Kevin Giles (78) and Shaun Barry (72) were tied for second low gross. Shaun Barry (70) beat Mike Hocko (70) on a match of cards for low net honors. Making the District Team were A. Petraglia, S. Barry, Forrest Arthur (79), Tony Toto (83), Tony Raczynski (84), and Mike Hocko (85). It really was a great day and we all agreed that we got one terrific "Deal".

Shaun Barry



The winners of the Superintendent-Pro event at Knickerbocker CC are Jim Gilligan (holding the trophy) and Bernie Kosinski with the plaque.



DISTRICT 4 CHAMPIONSHIP

On August 10, the District 4 Championship was held at the Links Golf Course in Marlton. Paul Geer was the perfect host on one of the few hot muggy days of the summer. The course, a hidden gem in the Pinelands of southern NJ, was set to tournament conditions. A few participants even managed to score well on the heavily wooded golf course. Jeff Shockley took low gross honors followed by perennial bridesmaid Tom Grimac. Low net honors went to Bob Prickett (what's that handicap?), with 2nd place to Kent Rickenback. Pete Cotto won one closest to the pin with the other going to Bernie Howell.

Afterwards a barbecue buffet and awards ceremony rounded out a wonderful day on a great golf course. Several people noted the absence of our esteemed friend from the north, and felt that made the day all the better. All the members of District 4 would once again like to

thank Paul Geer and the Links staff for providing an excellent day.

Phil O'Brien and Kevin Driscoll



Kathleen and Bob Jackson, who is superintendent at Woodcrest CC, the immediate past president of the Philadelphia Golf Course Superintendents Association and a recent member of GCSANJ, were married on September 12, 1992.



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.

Available in
New Jersey through
Fertl-Soil
Turf Supply, Inc.



Marty Futyma (201) 322-6132



4%Iron

METRO MILORGANITE 365 Adams St. Bedford Hills, NY 10507



STULL EQUIPMENT COMPANY

TURF and INDUSTRIAL DIVISION

201 WINDSOR RD. • POTTSTOWN, PA 19464

AUTHORIZED DEALER FOR:

BUNTON REEL MOWERS • CUSHMAN TURF
CUSHMAN FRONT LINE MOWERS
CUSHMAN INDUSTRIAL & COMMERCIAL VEHICLES
RYAN TURF MAINTENANCE EQUIPMENT
RANSOMES TURF EQUIPMENT
HOWARD PRICE TURF EQUIPMENT
S.D.I. SPRAYING EQUIPMENT
VICON SPREADERS • BECK TRAILERS
MITSUBISHI MIGHTY MITS TRUCKS

800-724-1024

An integrated approach to necrotic ring spot control in turf

by Bruce B. Clarke, Ph.D. Extension Specialist in Turf Pathology

Karen Kackley-Dutt, Ph.D. Coordinator, Plant Diagnostic Laboratory

Necrotic ring spot is a newly described disease of cool-season turfgrasses that has been observed with increasing frequency in the northeast, upper midwest, and Pacific northwest regions of the United States. Prior to 1983, it was considered a component of the Fusarium blight complex. Necrotic ring spot is a serious disease of Kentucky bluegrass and has also been reported on bentgrass, fine fescue, annual bluegrass, and rough bluegrass.

SYMPTOMS

Circular patches of infected turf may develop whenever periods of cool, wet weather occur. On Kentucky bluegrass, patches first appear as small, light green spots 2



A FULL LINE GOLF COURSE ARCHITECTURAL DESIGN-BUILD COMPANY SPECIALIZING IN:

- GOLF COURSE ARCHITECTURAL SERVICE
 - GOLF COURSE REDESIGN & CONSTRUCTION
 - GOLF COURSE IRRIGATION SYSTEMS
 - · SEEDING, SODDING, GRADING
 - LARGE TREE TRANSPLANTING
 - ARBORICULTURE SERVICES
 - CLUB HOUSE & POOL DESIGN
 - FULL LINE LANDSCAPE SERVICES

We service Pennsylvania, New Jersey, Delaware and Maryland. For information contact our Pennsylvania office at 215-828-5488 or our New Jersey offices in Voorhees 609-424-1727 or Princeton 609-466-0666. Please ask for our client reference list. FAX #215-828-9164.

to 4 inches in diameter. In some cases, patch diameters may exceed 3 feet, but they usually remain in the 4 to 12 inch range. As turf succumbs to infection, the leaves turn reddish-brown to bronze and then fade to a light straw color. Under conditions of thick thatch, all of the plants in a patch may die, resulting in a sunken or crater-like depression. Frequently, however, plants survive or recolonize infection centers and the patch takes on a ring or frog-eye appearance. Symptoms may also appear as diffuse patterns of yellow or brown-colored turf that coalesce into larger blighted areas.

Necrotic ring spot is often confused with yellow patch and pink snow mold since they exhibit similar foliar symptoms and occur in the fall and spring. Unlike the latter two diseases whose symptoms usually subside in late spring, necrotic ring spot can occur throughout the growing season and is characterized by the presence of dark brown fungal strands (hyphae) on dying roots, rhizomes, and crowns. In the later stages of infection, black fruiting bodies (pseudothecia) may occasionally be found on these tissues in the field.

CAUSAL AGENT

Leptosphaeria korrae J.C. Walter & A.M. Sm., the causal agent of necrotic ring spot, was formerly named Ophiobolus herpotrichus (Fr.) Sacc. The fungus forms brown, septate, runner hyphae on infected turfgrass roots and crowns. Dark brown, flattened resting structures (sclerotia) and black, flask-shaped fruiting bodes (pseudothecia) later develop on infected plant parts.

(Please turn to page 12)

Sound Values... Mobile and Portable

2 WAY RADIOS by MOTOROLA Privacy-Plus Trunked Products • Conventional Mobiles & Portables • VHF, UHF, 800 MHz, 900 MHz, Low Band

Paging Products



COMMUNICATIONS SERVICE 71 Spring Street, P.O. 463

Robert Bruno (201) 579-6076

(A), Motorola and Privacy-Plus are FCC License Required registered trademarks of Motorola, Inc.

Necrotic ring spot control in turf

(Continued from page 11)

DISEASE CYCLE

The causal agent is believed to survive unfavorable periods as sclerotia or hyphae in plant debris. Although little is known about the development of L. korrae in the soil, it attains maximum growth in the laboratory at 68° to 82°F and is inhibited at temperatures above 86°F or below 50°F. Symptoms can occur throughout the growing season during cool, wet weather, but generally appear in late spring and early autumn. Patches often fade with the advent of warmer temperatures in the summer, but may reappear in response to heat and drought stress. Infection centers develop again in early autumn and may persist through the winter and early spring. Recovery is slow and severely infected plants are easily pulled up due to the extensive root, crown, and rhizome rot. Infected sod and mechanical equipment may spread the disease.

EPIDEMIOLOGY

Conditions that favor necrotic ring spot are similar in many respects to those that favor take-all patch. The growth of the fungus is stimulated by cool, wet weather; however, heat and drought stress have been shown to intensify symptom expression. Since the fungus is more tolerant of soil moisture extremes than Kentucky bluegrass, drought stress may play a more important role in the development of necrotic ring spot than in take-all or summer patch. Necrotic ring spot can occur over a wide range in soil pH (5.0 to 8.0) and is intensified on compacted soils. The disease is most prevalent on 2- to 4-year-old lawns that were established with sod, although seeded areas and young turf can also sustain damage.

GET ENVIRONMENTAL



MID - ATLANTIC

REGION

- **Environmental Audits**
- Site and Remedial Investigations
- Underground Storage Tank Closures
- Environmental Drilling and
- Consulting Services **OSHA** Trained and Certified
- SERVING ENTIRE Single Source Contractor/ Consultant

TARGET ENVIRONMENTAL CO., INC.

P.O. BOX 703/NEWFIELD, NJ 08344 NJ 609-692-7575 PA 215-735-7004 FAX 609-692-8685

CONTROL

Since necrotic ring spot is a relatively new disease, information regarding its control is limited. Most researchers agree that keeping infected turf adequately fertilized and well watered to avoid drought stress will promote recovery. The benefits attributed to specific nitrogen sources or the application of sulfur to modify soil pH have not been consistently demonstrated. Overseeding infected turf with perennial ryegrass, tall fescue, or more resistant cultivars of Kentucky bluegrass will reduce disease severity.

Several currently registered fungicides have proven effective in reducing the incidence and severity of necrotic ring spot when applied on a preventive basis in early- to mid-spring. Systemic fungicides, such as fenarimol (Rubigan), benomyl (Tersan 1991), or thiophanate-methyl (Fungo, Topsin M, or Cleary 3336) applied at high label rates as a spray or drench, have been most effective. For best results, apply fungicides in early April and then repeat in early May. Control is enhanced when products are applied in at least 4 gallons of water per 1000 square feet. Contact fungicides have not provided adequate control in most laboratory and field tests.

The authors would like to express their sincere appreciation to the GCSANJ and the Metropolitan GCSA for supporting this research.

A letter from the president of the Golf Course Mechanics Association

Dear Readers:

The NJSGCMA opened its fourth season with its September meeting at the Ridgewood Country Club in Paramus. Our hosts were Ed Walsh, CGCS, and Gary Drozowicz, equipment technician. The topic of this meeting was brought to us by Power Up Lubricants. The Association and I extend our thanks to our hosts and speakers for their support and, once again, during this time of the year most courses, we find, are starting their renovations, so it's always hard to tell what kind of turn out we'll get, some big, some small. I must say, in my experience as president each meeting has proven successful. Our plans this year are for one educational meeting every third

(Please turn to page 17)

NEW JERSEY SUPERINTENDENT RECEIVES GCSAA CERTIFICATION

Richard T. Broome, superintendent of Little Mill Country Club, has been designated a Certified Golf Course Superintendent (CGCS) by the Golf Course Superintendents Association of America (GCSAA).

Broome has been superintendent of the Marlton, New Jersey, course since 1982. He lives at 333 Blaine Avenue in West Berlin.

To become certified, a candidate must have five years experience as a golf course superintendent and be employed in that capacity. The candidate must pass a rigorous six-hour examination covering the rules of golf, turfgrass management, pest management, financial and organizational management and the history, ethics, purpose and procedures of GCSAA. Also, an on-site inspection of Broome's golf course operation was conducted by two currently certified superintendents: Thomas Grimac, CGCS, of Haddonfield, and Alan Beck, CGCS, of Linwood.

GCSAA OFFERS TIME MANAGEMENT CORRESPONDENCE COURSE

Not enough hours in the day to do everything you need to do, plus everything you want to do? A new correspondence course offered by the Golf Course Superintendents Association of America was designed especially to help overcome this "time-less" problem.

The "Time Management" correspondence course was written by one of GCSAA's most popular seminar instructors, Bree Hayes, Ph.D., president of the Hayes Group. She says the course was designed to be comprehen-

JOSEPH M. MERCADANTE, Inc.
PAVING, EXCAVATING
Millburn, NJ
201-467-8622

• DRAINAGE SYSTEMS
• TEE BUILDING
• GRADING

sive, practical and challenging—"a real journey of self-exploration."

During the course, the student will analyze personal time expenditures, assess time "wasters" and "thieves," and learn how to set goals, delegate work and stop procrastinating. The course materials also include "essential" time management tips.

GCSAA also has correspondence courses available on the topics of media relations, underground storage tank management and hazard communication. GCSAA and its entire curriculum of seminars and correspondence courses are nationally accredited by the Accrediting Council on Continuing Education and Training, which is recognized by the U.S. Secretary of Education.

Successful completion of the "Time Management" correspondence course earns 0.7 CEU toward GCSAA certification or renewal. The course costs \$50. To order by credit card, contact the GCSAA education department at telephone (913) 832-4444, FAX (913) 832-4433. Mail written orders to GCSAA Education Department, 1421 Research Park Drive, Lawrence, KS 66049-3859.



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
- 103 Hot loadin or ovaporation
- · 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

Baltusrol getting ready for the U.S. Open

Raltusrol

Big tournaments require big preparations. This challenge is not new to **Joseph Flaherty**, CGCS, superintendent at the Baltusrol Golf Club, Springfield, New Jersey, who has handled more than a few of these megatournaments. "The

Greenerside" recently asked Joe about his preparation plans for the U.S. Open.

The U.S. Open has

been played at Baltusrol six times before, in 1936, 1954, 1967, and 1980. For you math wizards, the Open was held there twice prior to 1936, but no one at "The Greenerside" can remember back that far. Any help on those dates will be handled confidentially! The next U.S. Open at Baltusrol is set for June 1993, and, as any superintendent will explain, preparations must begin well in advance. Joe told us, "Beginning two years ago, in the fall of 1990, the areas of the fairways were narrowed as requested by the USGA." Joe had to kill the bentgrass in these sections and seed with bluegrass. These changes covered about 13 acres.

As to what fall and spring treatments and mowing practices he would be using to help prep for the tourna-

PAVELEC BROS.

GOLF COURSE CONSTRUCTION
CO. INC.

98 Evergreen Avenue Nutley, NJ 07110

Specializing in all phases of Golf Course Construction

Field Drainage/Landscaping Excavation

Tony Pavelec (201) 667-1643 Emil Pavelec (201) 939-6182 ment, Joe answered, "Generally, routine maintenance is used until about three to four weeks before the tournament." How did he manage the course when all the construction was going on? The reply was, "The regular

maintenance was not a factor as the construction was done from November through April." Joe has a crew of 30 men with two assistant superintendents,

Steve Wirth, who has been with Baltusrol since 1978, and Frank Salvador, who came on in 1990.

"In the winter of 1991/92," Joe relates, "the club decided to update the playing field by contacting architect Rees Jones and getting his suggestions." Rees Jones had plenty of great ideas to freshen up the course. Joe explained to "The Greenerside," "These included the extension of the third hole by about 25 yards with a new tee. On the fifth hole we added to the back of the existing tee, making the length of the hole twenty yards longer. We built a new tee to the right of the existing tee on the ninth hole. On the twelfth tee there was some widening and lengthening, but not a great deal." Joe figured these changes at three yards in width and ten yards in length. They extended the 13th and 14th tees, which added another ten yards there. Rees Jones also added third fairway bunkers on the right of the seventh fairway and on the left side of the eighth fairway. He removed a bunker from the fourteenth approach and extended the existing bunker on the left to the fourteenth green so that it now guards about 30% of the green.

Joe concluded with his praise of the Pavelec Brothers Golf Course Construction Company which performed the entire job.

Ilona Gray

Rutger's Turfgrass Field Day yields valuable information

Sam Leon is a lucky man. This year's field day Chairman Ed Milewski had put Sam in charge of the weather, and it was perfect for the large crowd of land-scapers, golf course superintendents, lawn care operators and others from the Northeast's Greens Industry who came to hear the latest data on turf research. There were 15 stops on the full day tour, broken midway by a delicious barbecued chicken plate lunch and a little friendly competition in weed and insect identification. Most everyone entering

(Please turn to page 15)

X marks the spot

You know every era of our association has had a person who stands behind the scene, never quite getting the recognition they deserve, but always there when needed. It seems **Shaun Barry** is this board's answer to that person, and I certainly hope each and every member is aware of the contribution he makes.

When I was involved we had a person just like Shaun. This individual was instrumental in getting The "Greenerside" off the ground. He wrote an article on a regular basis, helped put stamps on envelopes, solicited advertisements like a bull dog and never ever said he didn't have time to do more.

When someone told us the Invitational Tournament wouldn't work because the golf pro wouldn't cooperate (that was never an issue as far as I am concerned), he worked his #%@! off to encourage superintendents and golf pros to get involved, and look what that event has turned into.

To my knowledge this guy has never said no to any request. I know I have, on occasion, asked more than I had a right to, but you do that to guys who you can count on when things need getting done.

COME TO THE
NEW JERSEY TURFGRASS
EXPO









Learn the latest in turfgrass maintenance and earn pesticide credits for DEPE certification and recertification (NJ, PA, NY, DE, CT, MA)

December 1, 2, 3, 1992 Somerset Plaza

Garden State Exhibit Center









For registration and information call:

(908) 821-7134

NJTA • Box 340 Milltown, NJ 08850-0340 I have always tried to separate friendship and business relationships, but in this case, it has never been an issue. This gentleman is a close friend who happens to give me and Ridgewood the service we expect and then some.

Most of you who know me figured out who I am talking about before you got this far. More importantly, most of you probably agree. He is one of those rare people who can be almost every thing to almost every body.

Ken Kubik, thank you very much for everything. It has been my pleasure to work alongside you and, more importantly, to call you a friend.

Ed Walsh, CGCS

Rutger's Turfgrass Field Day

(Continued from page 14)

these competitions was scratching his head, although everyone seemed to appreciate the mental exercise. I was reminded of how much I learned in the 20 week winter turf course, and also that a few lessons had slipped through the cracks.

The tours began in the morning with 3 groups. **Dr.**Reed Funk spoke to the Red group about Bluegrass trials.
He explained that they had located the Ryders Lane trials in a low pocketed area to place the varieties under stress and enhance disease occurrence. He stressed the differences between Bluegrasses and the others, in that Bluegrasses reproduce by apomixis, which causes the breeder to always go back to square one in order to breed a new Bluegrass. He also emphasized the need to look at grasses for longer than just the first year's trial results, because when they age

(Please turn to page 17)

grass roots
turf products, inc.

You can't grow GRASS without ROOTS

KEN KUBIK (201) 361-5943

BERT JONES (908) 686-8709

Yours in turf

Webster defines the word "tool" as a hand instrument used to aid in mechanical operations. After visiting Knickerbocker Country Club, it seems Sam Juliano's definition is much broader. He includes the use of technology, consultants and family as important tools in attaining the top notch playing conditions that were evident during the Golf Course Superintendents Association of New Jersey Invitational on September 3, 1992.

Plant Growth Regulators and deep drill aeration are two of the latest technological tools Sam is currently using. He highly praised the use of PGRs as he has seen his course transform from fields of snow in the spring to rolling hills of green. The reduction of clippings has been less of a burden on the crew. His greens are close to being 100% creeping bentgrass (Putter, Penn Eagle, Penn Cross). And his root system? Assistant Superintendent and brother Mike Juliano was all smiles as he reported roots up to 15" deep.

When the club decided to secure the services of a consultant, Richard Psolla, Sam looked at him not as a threat but just another tool at his disposal. The consultant

offered not only agronomical recommendations, but also efficient ways of attaining them. One such way, Sam noted, was the use of an outside contractor who spread soil amendments cheaper than it would have cost him to buy the materials. Sam looks forward to his visits, for the consultant is up on all

the latest innovations being used across the country, and maybe one will have potential for use at Knickerbocker.

And what seemed most important to Sam was the value he placed on family and their opinions. He mentioned the occasional debates he has with his brother Mike as being useful. Sometimes you get set in your ways and can't see beyond them. He takes time in the evening to drive around the course with his wife P.J. who offers another valued point of view to be considered. And for his peer family, Sam enjoys the exchange of information with fellow superintendents. This was evident in his discussion of his former mentors and present friendships he has formed throughout his career.

Using all tools available, Sam Juliano has transformed Knickerbocker Country Club into a showplace golf course that his membership can be proud of. And we can all be proud to be associated with Sam for he leaves everyone who visits his course with a positive example of the true professionalism of the golf course superintendent.

Douglas A. Vogel Superintendent

RANSOMES GREENS 3000 BRINGS GREENS CARE INTO THE 21st CENTURY

Versatile reel options are all interchangeable. Choose from 9 blade from mounted Verti-Groom, 9 blade Greens, 7 blade Fairway and Tees, or Verti-

Armchair comfort reduces operator fatigue. Adjustable tilt steering wheel and power steering. All controls and gauges are in easy reach and sight.

adjustable back rest

High cutting frequency of 138 cuts per yard at 4 mph with 9 blade reels.

Cutting height adjusts quickly and easily without the use of tools to as low as 1/8*



RANSOMES

GREENS 3000

WHERE GREAT IDEAS START

For a FREE demonstration contact:

Steven Willand, Inc. 201-579-5656

RES 201-992-2335

BUS. 201-227-7183

Alan G. Cruse, Inc.

GOLF COURSE & LANDSCAPE MATERIALS
DECORATIVE STONE • WHITE SAND • TOPSOIL
HUMUS-TEE & GREEN MIX • BARK MULCH
EARTHLIFE

Established 1953

460 HORSENECK RD. FAIRFIELD, NJ 07004

Rutger's Turfgrass Field Day

(Continued from page 15)

their characteristics may change or cause deterioration. The next stop was Fine Fescues where Bill Dickson talked about different types, insect and disease resistance, and water and fertilizing needs. It was clearly demonstrated across the front of each plot, mowed at 1/2", that an extra application of fertilizer plus more frequent watering had

caused the grasses to deteriorate and crabgrass to be able to invade. The most interesting new information about Fine Fescues is that at Adelphia those grasses with a high endophyte level are showing less susceptibility to dollar spots. There is no firm explanation for this phenomenon at

(Please turn to page 18)

A letter from Golf Course Mechanics Association

(Continued from page 12)

Monday of each month.

For the readers who don't know us, let me tell you that every meeting we hold is strictly based on educating our members in the golf course equipment field. In other words, no golf, no dinners, only training as much as we can to keep our equipment running 100% all the time, and most important, keeping each operator safe when using any piece of equipment.

As I've talked with our sister associations in Florida, Ohio, California, and Chicago, a joint focus is being established on our industries to work closer with dealers, manufacturers, equipment reps and others to produce better equipment and open communications with the professionals who must maintain what they create. I wish I could tell you how many more programs will be available soon, but I've run out of space.

Oh, by the way, if you're interested in sending your mechanic to a meeting to see what it's all about, we'll welcome him as one of us.

Sincerely,

Ray Schroeder, President





GLYPHOSATE NON-CARCINOGENIC!

The EPA recently placed glyphosate (Accord®, Rodeo®, Roundup®) in category "E". Very few products qualify for this rating. EPA's ratings are:

- A Human Carcinogen
- B Probable Human Carcinogen
- C Possible Human Carcinogen
- D Not Classified
- E Evidence of Non-Carcinogenicity in Humans

This rating was approved after extensive animal testing which included lifetime rat tests where 2% of the diet was glyphosate!

Reprinted with permission from the July/August edition of Wisconsin's Forestry/Rights-of-Way/Turf Coalition, Madison, Wisconsin.

TURFGRASS MANAGEMENT TECHNICAL PROGRAM

Applications are now being accepted for Penn State's Two-Year Technical Turfgrass Management Program for the class beginning in October 1993. There is an application fee of \$35, and the deadline for applications is December 31, 1992. Applications can be obtained by calling (814) 865-8301 or by writing to Short Course Office, The Pennsylvania State University, 306 Ag. Administration Building, University Park, PA 16802.

Rutger's Turfgrass Field Day yields valuable information

(Continued from page 17)

this time but it will certainly be of interest in future field days.

Bruce Clarke talked about fungicide control and irrigation practices for Summer Patch disease. The first application of drenches should be made at 65° soil temperature as the disease becomes active at about 68° or 69°F soil temperatures. Applications should be done on overcast days when drying conditions are poor, so that the control product can be watered down to the crown and roots to allow it to then be translocated up. Applying Summer Patch controls on clear bright days, when drying conditions are excellent, almost insures failure because most of the effective control products are absorbed under those conditions in 30 seconds or less. He recommended an optimum of 5 gallons of finished spray per 1,000 sq. ft. with 1/8" to 1/4" of irrigation immediately following. He said tests done at the University of Maryland have shown that too much water can dilute the product and reduce control. Dr. Clarke also mentioned that benzamidizole type fungicides should not be used for the last application of the season due to their shorter residual. Summer Patch season can run from mid-May to mid-September.

Dr. Richard Hurley gave a brief overview of the Bentgrass variety trials. There are many improved Bentgrasses with very fine texture, upright growth and

dark green color. Also discussed were brown patch control and dollar spot control, both on Bentgrasses. Several people noted that this year dollar spot has been hard to control, and that the control products usually relied upon have given much shorter intervals of control than in previous years. No one yet knows why.

Drs. Jim Murphy and **Joe Heckman** have developed some new and interesting research into soil injection of Nitrogen carriers via the Toro hydroject. There seems to be a longer residual time from soil injected readily available Nitrogen carriers as opposed to surface applied materials.

There were several other topics covered including perennial Rye and Tall Fescue trials; Warm Season grass evaluations; Wild Flowers; influence of Nitrogen Carriers on pH; Turf quality; and Summer Patch severity.

The day was beautiful, the company was good, the information was pertinent, and this story is over. Any questions about the field day, unanswered by this article, may be referred to **Dave Pease.** I saw him taking notes!

Gerald B. Fountain Golf Course Salesman Seacoast Laboratories, Inc.

PATRON DIRECTORY



Complete tree care - Robert Mullane-Peter Orszulak-Brian Nadriczny; (914) 948-0101

Irrigation System Designers and Suppliers Phil Demarco - Jerry Purcell (609) 561-1777 (800) 524-0895

AQUATROLS CORP. OF AMERICA

Manufacturers of Water Management Products Andy Moore - Phil O'Brien - Drew Effron (800) 257-7797

ATLANTIC MILLS INC.

Tee Towel, Tee Aces. and Ball Wash Detergents Pete Donnelly - Jack Brady; (908) 774-4882

JAMES BARRETT ASSOCIATES, INC.

Golf Course Irrigation - Design and Consulting Jim Barrett; (201) 744-8237

* SKY BERGEN/TURF SPECIALIST

Sales to the professional industry (201) 635-6469

BLUE RIDGE PEAT FARMS, INC.

Top Dressing, Peat, Humus & Potting Soil Gene Evans; (717) 443-9596

BRUEDAN CORPORATION

Yamaha Golf Cars - John Deere Turf Equipment Bill Rapp; (800) 535-1500 (914) 469-2275

Turf and Ornamental Products Randy Moser; (215) 343-5654 Michael Oleykowski; (609) 267-8041

W.A. CLEARY CHEMICAL CORP.

Somerset NJ

Bob Leslie; (201) 993-6696, (908) 247-8000

CONSOLIDATED STEEL & ALUMINUM

FENCE CO., INC. Fencing Contractor Eugene T. McLaughlin; (908) 272-6262

ALAN G. CRUSE INC.

Golf Course Materials

Alan G. Cruse; (201) 227-7183 (201) 992-2335

DeBUCKS SOD FARM

Grower and Supplier of Bluegrass and Tall Rescue Sod Leonard DeBuck, Ray Dorsey; (914) 258-4131

DISPRO DISPLAY PRODUCTS CORPORATION

Manufacturer of Golf and Country Club Signage Jerry Baine; (908) 988-5400

DOUBLE EAGLE EQUIPMENT

Turf Maintenance Equipment Clyde Ashton - Jerry Pearlman - Stan Stevenson (908) 329-9292

EGYPT FARMS, INC.

Top Dressing and Construction Mix, Aqua-AID John Strickland - Jeff Lacour - Dean Synder (301) 335-3700

E-Z-GO/TEXTRON, INC.

New & Used Golf Cars & Turf Equip. Tom Sauer, Branch Mgr.; John Myers, No. & Cen. NJ; Paul Proter, So. NJ; (609) 586-4000

FERTL-SOIL TURF SUPPLY, INC.

Greens Topdressing/Turf Supplies Marty Futyma - Catherine Futyma (908) 322-6132

FINCH GOLF & TURF COMPANY

John Deer Turf Equipment, Dennis Wagner -Mike Reynik - Ray Finch; 1(800) 78-DEERE

FISHER & SON CO., INC.

Grass seed Fertilizers Chemicals Allan C. Phillips - Frank Fisher - Mike Fisher (800) 262-2127; (609) 478-6704

GOLF BY JANIS INC.

Golf Course Construction, Renovation, Irrigation Al Janis; (301) 641-5108

Golf Cars, Sales, Service; Jon F. Schneider, Gen. Mgr. -John Czerwinski, Rep, Albert Wunsch, Pres; (215) 340-0880

GRASS ROOTS TURF PRODUCTS, INC.

Golf Course Supplies, Ken Kubik - Bert Jones (201) 361-5943 (908) 686-8709

GREENWOOD TREE EXPERTS

Full Service Tree Care Bob Dubee; (201) 335-6650

IERSEY TURFF SPECIALISTS

Golf Course (Deep Tine Aeration) Jack Montecalvo; (609) 567-901

JONATHAN GREEN INC.

Grass Seed, Fertilizer, and Turf Chemicals Barry K, Green II - Ed Barbano - Todd T. Pretz (908) 938-7007

Turf Maintenance Equipment, Sales & Service Jack Poksay - Michelle Poksay; (609) 585-2300

REES IONES, INC.

Golf Course Architects Rees Jones - Keith Evans -Greg Muirhead; (201) 744-4031

Golf Course Architects - Stephen Kay - Ron Turek -Barbara Kotler; (914) 699-4437

KOONZ SPRINKLER SUPPLY COMPANY

Rainbird Irrigation Equipment William Koonz; (201) 379-9314

LAWN & GOLF SUPPLY COMPANY

Specialists in Equiment and Supplies for Maintenace of Turf - Sam Baird Jr.; (800) 362-5650

LESCO, INC.

Serving the GCSAA of NJ Dan Cavallo; (800) 321-5325

LEBANON CHEMICAL CORP.

Country Club Fertilizers & Chemicals Steve Chirip; (717) 894-3133

LEON'S SOD FARM

Sod Grower

Samuel Leon - Irene Leon; (908) 996-2255

LOFTS SEED INC.

Turf Seed and Fertilizer Supplier Dr. Rich Hurley; (908) 560-1590

LONGO MOTOR & PUMP, INC.

Electric motor/pump repair/sales Cathy Hughes - Bob Tal; (201) 539-4141

RALPH McGILLAN

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

JOSEPH M. MERCADANTE, INC.

Cart Path, Tee, and Trap Construction Joe Mercadante - Robert Mercadante (201) 467-8622

METRO MILORGANITE, INC.

Turfgrass Supplies

Rich Apgar - Scott Apgar; (914) 666-3171

MONTCO/SURF-SIDE

Wetting Agents/Defoamers Robert Oechsle; (215) 836-4992

NK Lawn Garden Co.

Medalist Turf Div., Turfgrasses for the professional user George Rosenberg - Branch Mgr.; Tom Koubek - Turf Specialist (800) 828-5856

NOR-AM CHEMICAL CO.

Chemical/Fertilizer Manufacturer Shaun M. Barry; (908) 846-8173

NORTHEASTERN ASSOCIATES

Sales & Service for Golf Course Industry Vincent Dujets - Chuck Kolenut (201) 227-0359

PARTAC PEAT CORPORATION

Golf Course Top-Dressing Jim Kelsey (908) 637-4191

New Patrons for 1992

PAVELEC BROS. GOLF COURSE CONSTRUCTION CO., INC.

Golf Course Construction Tony Pavelec (201) 667-1643 Fmil Pavelec (201) 939-6182

PLANT FOOD COMPANY, INC.

Manufacturer of Fluid Fertilizers Ted Platz - Anthony "Rip" Rippel; (609) 448-0935

POCONO TURF SUPPLY CO.

Turf Supplies Ron Olsen; (215) 672-9274

P & P EXCAVATING INC.

Excavating Contractor, Lakes & Ponds, Equip. Rental, Grading Bob Laner; (201) 227-2819 (201) 227-2030

PRO LAWN PRODUCTS, INC.

Ingrid Kern; (215) 750-1732 Craig Lambert; (201) 663-3368 Brad Simpkins (609) 758-7620

ROCKLAND CORPORATION

Turfgrass Chemicals & Fertilizer Steve Stys - (201) 575-1322

GEO. SCHOFIELD CO., INC.

Golf Course Supply Kevin Schofield - Bob Carson - Tom Casmer (908) 356-0858

THE SCOTTS COMPANY - PROTURF DIV.

Turf Fertilizers, Protectants, Seed Fran Berdine (914) 361-4105 Steve Rudich (215) 253-4003

SEACOAST LABORATORIES, INC.

Granular Turf Prod., Grass Seed Gerald B. Fountain (800) 522-4769

SEQUOIA TREE SERVICE INC.

Paul Portsmore - John Schaus - J.T. Kievit (201)-891-0309

SHEARON ENVIRONMENTAL DESIGN

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

STORR TRACTOR COMPANY

Turf Maintenance Equipment, Irrigation Mary Lou Deschamps - Gene Tarulli -Paul Granger; (908) 722-9830

WILLIAM STOTHOFF CO. INC.

Well Drilling, Pumps & Pump Repairs William L. Stothoff III (Pete) - William E. Snyder (908) 782-2717

* SWEENEY SEED CO.

Seed (turfgrass) A. M. Sweeney - Jeff Schockley -John Pew, III; (215) 275-2710

TARGET ENVIRONMENTAL CO. INC.

Environmental Consultants/Contractors Mark Hartman - Linda Crane; (609) 692-7575

THE TERRE COMPANY

Seed - Fertilizer - Pesticides - Nursery stock Byron Johnson - Bryan Bolehala - Pat O'Neil (201) 473-3393 - FAX 473-4402

TURF PRODUCTS CORPORATION

Turfgrass Supplies Ernie Rizzio - Buddy Rizzio - Larry Rizzio Ron Lake; (201) 263-1234

TURF & SOIL DEV./ISOLITE

Soil Development and Infrared photography Peter Van Drumpt - (908) 922-4743

WILFRED MCDONALD, INC.

Turf Maintenance Equipment Dennis DeSanctis - Ed Rockhill - Bill Luthin (201) 471-0244

STEVEN WILLAND INC.

Turf Equipment Distributor Mark Ericson - Bruce Pye - Rich Brandel (201) 579-5656

Baltusrol • Bedens Brook • Canoe Brook • Shackamaxon • Spring Brook • Timber Trails and others . . .

What do the superintendents of these prestigious golf courses have in common?

They use the services of . . .

KOONZ

SPRINKLER SUPPLY

... the smart choice for all your irrigation needs



SERVICE EXCELLENCE

- Complete inventory
- Service assistance and technical support
- 25 years experience

KOONZ

QUALITY PRODUCT LINES

Distributors of

RAIN BIRD®

HUNTER®

WEATHERMATIC®

Sprinkler Equipment

Sprinkler Supply, Inc.

39 Waverly Avenue • Springfield, N. J. 07081

(201) 379-9314

Branch Offices: Wall Township • Toms River • Hackensack