

THE GREENERSIDE

Official Publication of the
Golf Course Superintendents Association of New Jersey

Vol. 13 No. 2

March - April 1990

1990 Regulatory Reminders

It used to be that reading the pesticide label before using the product was the single most necessary step in satisfying state and federal regulations. New Jersey is one of the most advanced states in the area of environmental protection. In this issue of the "Greenside," a number of key responsibilities of the golf course pesticide applicator are highlighted to serve as reminders that preparation for the spray season means more than just reading the label. Your equipment should be calibrated, you must obtain or maintain your certification status, and you have to be prepared to handle the requirements for posting under the 1989 revision of the NJ Pesticide Control Code. Good preparation takes a different twist.

Last year the Pesticide Code underwent extensive changes which affect golf course management. The important ones are summarized as follows:

Storage areas: The required pesticide storage area inventory must be submitted to the local fire department on an annual basis.

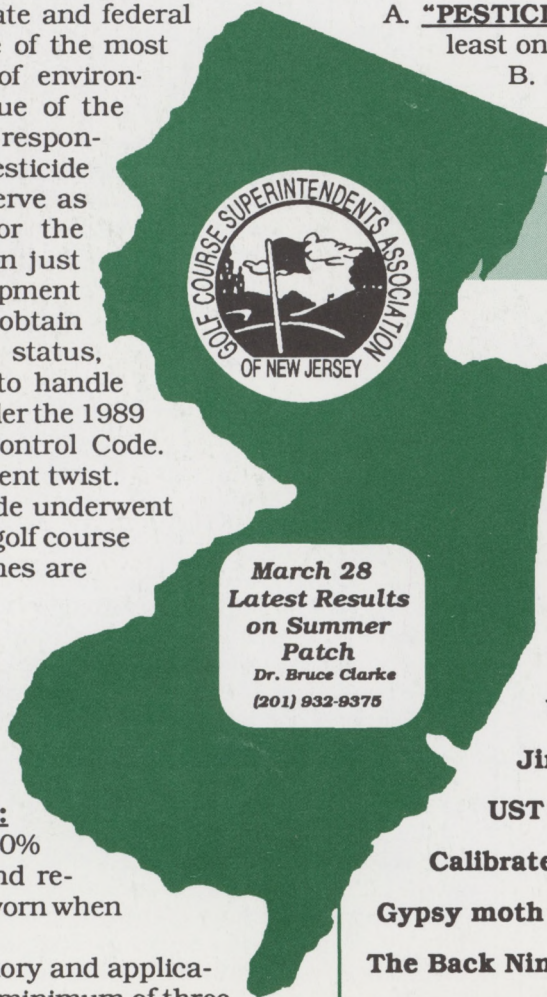
Restricted Use List Addition: All 2,4-D formulations above 20% a.i. are now "restricted use" and require gloves and eye protection worn when mixing or loading.

Records: All commercial inventory and application records must be kept for a minimum of three years.

Notification: No commercial pesticide application can be made unless you first satisfy the notification requirements. Signs must contain the following information and be posted at all of the starting tees:

information and be posted at all of the starting tees:

- A. **"PESTICIDE TREATED AREA"** in lettering at least one inch in height.
- B. **Brand Name**, and all a.i. common
(Please turn to page 6)



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THE GREENERSIDE

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GOLF COURSE SUPERINTENDENTS ASSOCIATION OF NEW JERSEY

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EDITORIALS

"Please don't judge us by our cover alone"

It's official! The 1989 Golf Course Superintendents Association of America award for "Best Cover" for a golf course superintendent's association newsletter has been made to the "Greenerside." This is one of several national awards that have been granted to the "Greenerside." The official announcement was made in the January issue of the "Golf Course Management." Being recognized for your efforts and receiving an award for them is always a pleasant assignment. But it also provides the time to pause and reflect on what makes the "Greenerside" so special. Yes, we do put a lot of effort into designing the cover, but please don't judge us by our cover alone!

Our newsletter is printed by Association Management Corporation of Springfield, New Jersey. They are a special "contributor" for each issue helping us with the overall design and layout of the newsletter. Our other cooperators are special, too, and have contributed articles, photographs and anecdotes for the six issues published each year. The secret to the "Greenerside's" success is the outstanding cooperation of all the contributors and our focus on New Jersey. It was gratifying to read in the critique by GCSAA of the "Greenerside" that they concurred with this, too! They cited our good coverage of local events, especially the patch disease symposium, membership communication, features like the "back nine" and articles like "X Marks the Spot." The "Greenerside" provides the best coverage of New Jersey golf course superintendents news. That was our mission in 1989 and it will continue to be in 1990. To achieve our goal, we need the continued support of our membership. your ideas, stories and photos will keep us strong in 1990.

Thank you for your contributions to date and we look forward to more of the same in the future.

ILONA GRAY, EDITOR

Dear Steve:

I wish to express my sincere appreciation for the recognition received from the Golf Course Superintendents Association of New Jersey at New Jersey Turfgrass Expo '89.

The Distinguished Service Award, established by the association in 1986, is a very prestigious award reflecting upon the association's recognition and appreciation for services contributing to the advancement and benefit of better turf for more enjoyable golf. I feel deeply honored in being selected as the recipient in 1989 and being accorded this recognition at the Expo Dinner show. It was totally unexpected and I must admit an emotional experience.

Serving the needs of golf turf and the Association activities was an enjoyable experience from which I have benefited professionally and personally. If in any way it has helped the cause for better golf turf and the Association, I feel that it was in fulfillment of a decision made many years ago that it was one of my responsibilities.

I'm very appreciative of the challenges and opportunities of the golf turf industry. Many thanks in being recognized with the Association's Distinguished Service Award which I shall hold in high esteem as one of the most cherished recognitions that I have received.

Sincerely yours,
Henry W. Indyk

Extension Specialist in Turfgrass Management

PRESIDENT'S MESSAGE



Steve Finamore,
CGCS
President GCSANJ

As we begin another golf season, I would like to bring everyone up to date on some of the Association business. Vice President Dave Pease, who is chairing our reorganization study and By-laws Committee, has informed us that we are presently filing for tax-exempt status. By the time this newsletter is printed, we should have filed a tax report for the first time in GCSANJ history. The committee was busy last year filing for incorporation and making some minor language changes in our By-laws to satisfy some federal regulations. Dave is also chairing our Invitational Committee and has set up this premiere event for September 13 at Montammy Country Club.

Committee work is an important part of GCSANJ activities. Committee members are the gears that make the organization function. Listed below are the members of our committees. They are here to serve you, so feel free to contact them for any assistance. Also, anyone interested in serving on any of the committees, please contact the committee chairman or myself.

Government Relations: *Paul Powondra* - To keep the membership informed on state laws, policies and regulations and to monitor lobbyist activities.

Scholarship and Research: *Paul Powondra* - To make recommendations for GCSANJ financial support

on research projects and university activities and on scholarship support.

Club Relations: *Tom Grimac* and *Larry Dodge* - To administer the salary and maintenance survey and assist clubs and golf courses in procedures upon request.

Membership and Roster: *Larry Dodge* - Responsible for the yearly roster. Proposes new members, reports classification and membership changes.

Education: *Chris Carson* - Responsible for the Winter Seminar, GCSAA seminar and other seminars. Serves on Expo Education Committee.

Benevolent: District Directors

Golf: *Dick LaFlamme, Shaun Barry, Steve Chirip*

(Please turn to page 15)

IN THE CALENDAR

REGULAR CALENDAR

April 24 GCSANJ April Meeting, Little Mill Country Club, Marlton: Superintendent, Richard Broome, (609) 768-0024.

REGULATORY CALENDAR

New Jersey Pesticide Control Program Certification Exam Dates

- | | |
|------------------------------|--|
| April 3 & May 1 | Atlantic County Extension Office, Mays Landing |
| April 5 & May 3 | Camden County Extension Office, Clementon |
| April 10 & May 10 | Essex County Parks Department, Roseland |
| April 17 & May 17 | Monmouth County Extension Office, Freehold |
| April 11 & May 15 | Morris County Parks Commission, Freylinghuysen Arboretum, Morristown |
| April 25 & May 18 | Ocean County Extension Office, Toms River |
| April 24 & May 24 | Sussex County Extension Office, St. Paul's Abbey, South of Newton |
| April 26 & May 22 | Union County Extension Office, Westfield |

Call (609) 530-4133 to reserve a seat and obtain registration materials. All exams are during the day, Monday through Friday. **YOU MUST REGISTER IN ADVANCE.** Your exam application must be postmarked 14 days before the exam date. You must bring the confirmation postcard to the exam in order to be admitted.

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GCSANJ NEWS

LET THE TOURNAMENTS BEGIN!

At the GCSANJ monthly meetings, in addition to business program, we share the fun of a special golf tournament. This year will be no exception. The tournament program has been planned as follows:

April	"Beat the Host" (the Host Superintendent).
May	District Championship
June	Four-Man Net Best Ball
July	Scramble
August	Two-Man Net Best Ball
September	Invitational
October	Championship
November	Skins Games



The Winning New Jersey team at the MET Team Championship was comprised of (from L to R): Chris Gaynor, Steve Finamore, Phil Scott, Harry Harsin, Forrest Arthur, Bob Prickett, Tom Grimac and Shaun Barry.

Rick Evans, assistant superintendent at Ridgewood CC, answers one of the many difficult questions posed by Seminar Facilitator Neil Maresca



COMMUNICATIONS WORKSHOP SPREADS THE WORD

The GCSANJ Communications Workshop was held on January 17 at the Loree Building on Cook College Campus and featured Neil Maresca and Chris Varian of Varian Maresca Associates. The program jumped right into the hot topic of dealing with television and the media. If you think this is important only for news broadcasters, you're mistaken. As a golf course superintendent, you routinely deal with the public on sensitive issues. A misapplication or a misunderstanding can easily put your course on the evening news.

Forty-two very enthusiastic participants worked through the all-day session. Basic principles of risk and media communication were discussed and on-camera interviews were conducted. Strategies for dealing with the media were developed during the workshop. Mock interviews were used to bring to life the real challenges of making a presentation to the media. The microphone and Neil Maresca's ascerbic wit was thrust upon Charlie Edgars (Green Acres CC); Gary Nokes (Bey Lea Golf Course); Rick Evans (Ridgewood CC); and Martin Mantel (American Golf Corp.).

After a luncheon, the workshop switched gears and the subject of communicating in small groups such as a "greens committee" became the central focus. Interpersonal communication skills are essential and include good listening habits and giving and receiving appropriate feedback, Maresca said.

The best part of the day was the "role-playing" exercises. Six of our own participated, including Bob Dickson (chairman of the role-playing Green's Committee for the "Sunshine Lake Country Club and Golf Course - SLCC), Chris Carson (who played Mr. Avid Golfer), Dave Pease (Mr. Banker), Mike Oleykowski (Mr. Cronnie), Bruce Peeples (Mr. Duffer, a research biologist) and Steve Cadenelli (Superintendent of SLCC).

The participants learned a lot about the do's and don'ts of communication. Of course, the program doesn't make the participant an overnight expert. To be media slick, you need a lot of practice, but to be reasonably successful, the first step is to be prepared and education is the first step in preparation.

ILONA GRAY



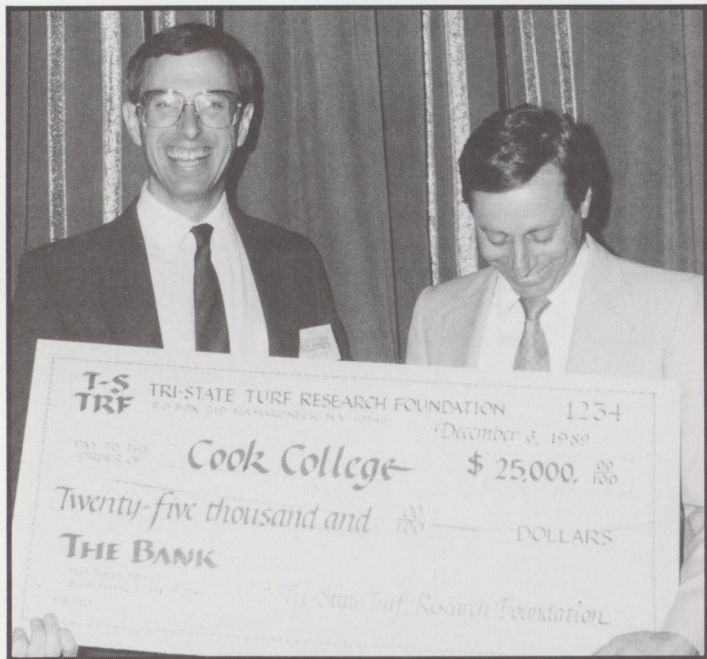
Attendees at the GCSANJ Communications Workshop listen as their fellow supers answer tough mock interview questions.



MEMBERSHIP CHANGES

A warm welcome is extended to the following new members and a special congratulations extended to those whose membership status has changed. Joseph Antonaccio and Anthony Grasso are two new Life Category members.

Bob Dwyer	Somerset GC	A
Joseph Antonaccio	Morris County GC	A to Life
Anthony Grasso	Metro Milorganite	C to Life
Samual Leon	Leon Sod Farm	C
Benny Peta	Bedens Brook CC	A
Anthony Raczynski	Tamarack Club Pres.	D
James DeLibero	Landscape Sply. Co.	C
Thomas Casmer	Geo. Schofield	C
Brad Simkins	ProLawn Products	C
Dennis Wrede	Cedar Hill CC	B
Lance Rodgers	Somerset Hills CC	B-1
Mark J. Sinto	Madison GC	B
Dennis Parker	Metedeconk Nat'l GC	B-1
Richard Lane	Beaver Brook CC	B-1
Dean Chaltas	Storr Tractor	C
Beth Ann Bevins	Harker Hollow GC	B-1
Robert Lowery	Somerset Cty Parks	B to A
Don Zeffer	Harkers Hollow GC	B-1 to B
Melvin Waldron II	Bowling Green GC	D to B-1



Dr. Bruce Clarke (l), Extension Specialist in Plant Pathology, Cook College, receives a \$25,000 check from Steve Finamore on behalf of the Tri-State Turf Research Foundation for Patch Disease Research.



GCSANJ Vice-President David Pease (l) was presented with a check for \$221 from LESCO's Mike Oleykowski as part of the ongoing Blue Tagged Turf Seed Redemption Program. Continue to save your blue tags to help support GCSANJ.



GCSANJ President Steve Finamore (r) presents to Dr. Henry Indyk the Golf Course Superintendent's Association of New Jersey's Distinguished Service Award at the New Jersey Turfgrass Expo '89, held in December.

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1990 regulatory reminders

(Continued from page 1)

chemical names if available.

C. The last and next proposed **date of application.**

D. **The areas treated.**

E. The **name and telephone number of the person to be contacted** for additional information.

The signs must be visible to all persons using the course and if the golfer requests prior notification of the exact date of application, it must be provided by the responsible applicator.

For questions on the above mentioned regulations, refer to the list of important phone numbers provided within this issue.

ILONA GRAY

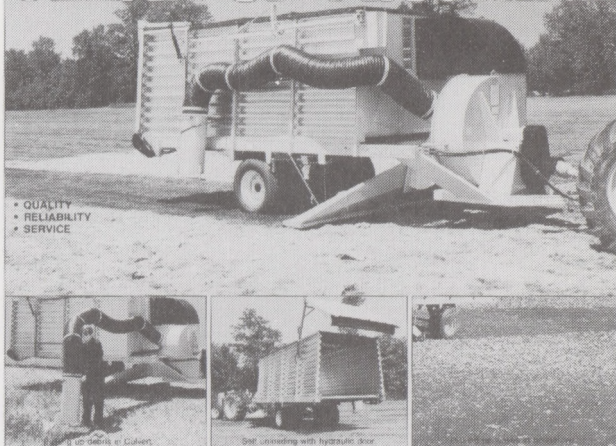
Mechanics sharpen their skills for 1990

Back on January 22, a group of New Jersey golf course mechanics held their first meeting for 1990 at the Essex County Country Club. Mike Scherdan, superintendent at Essex County Country Club, was an excellent host. Ray Schroeder, golf course mechanic from Crestmont Country Club, welcomed the nearly 40 attendees and introduced the guest speaker, Gordon Whitaker, technical sales consultant from Bernhard & Company. Gordon spoke on the history of grinding wheels, followed by a demonstration conducted by Duncan McRae from Storr Tractor. Grinders last a lifetime and are quite costly, making the purchasing decision an important one. These spin grinders are used to keep all cutting equipment sharp and free of burrs. A job that used to take five to eight hours or more by hand can now be done efficiently within a few minutes on a modern spin grinder. Two representatives from GCSANJ, Peter Pedrazzi from Crestmont CC and Larry Dodge from Essex Fells CC, also participated in the workshop.



Larry Dodge from Essex Fells CC (l) and Peter Pedrazzi from Crestmont CC represented the superintendents at the first 1990 Mechanics Meeting.

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SUPERINTENDENT PROFILE

ALAN BECK, CGCS

It was difficult to ignore the unmistakable skyline of Atlantic City just across the bay as Alan Beck, superintendent of Linwood Country Club, pointed out some of the features of his course. Although January had proven to be quite mild after the prolonged cold of December, I was grateful that Alan was driving the golf car so I could keep my hands in my pockets.

A Hatboro, Pennsylvania native, in the early 1970's, Alan worked as a waiter at Squires Golf Club in Ambler, Pennsylvania. He told me he had intended to become a club manager, and to that end he earned an Associates Degree in Business Administration in 1973 from Montgomery County (PA) College. He later attended Temple and became interested in agronomy while at Delaware Valley College of Science and Agriculture in Doylestown, Pennsylvania. That interest prompted him to enter the two-year turf program at Penn State in 1975, and while involved in that course of study, he worked at Great Bay Country Club in Somers Point.

Upon graduating in 1976, Alan became assistant superintendent at Linwood. He remained there until 1978 when he became superintendent at Greentree Golf Course in Mays Landing. That same year he also established his own lawn care business. In 1981 Alan was asked by Lou Vay to return to Linwood as superintendent. Lou had been superintendent there for 25 years and had become the club's general manager. Alan has remained at Linwood ever since.

During his tenure, Alan has installed an automatic, single row irrigation system. He started that project in 1981, using his own crew and doing the work over the course of several winters, finishing in 1984. He commented that it was a great learning experience and that he knows precisely where all piping is located on the course. That knowledge was most useful when he was called upon to do the installation of 1200 feet of 6" fire line and 3" domestic water piping to the clubhouse, crossing two fairways.

Alan pointed out that virtually all projects at Linwood are done in-house. A renovation program for his 64 bunkers is nearly 75% complete. Eleven additional blue marker tees have been built using the sand removed from the refurbished bunkers, the bluegrass sod being installed directly onto the sand with no other soil being added.

Integrated Pest Management has been practiced at Linwood by Alan since his arrival. He noted that it was out of necessity. The course's location on the bay, with wetlands on the property, is a constant reminder of the environmental stewardship of a superintendent.

Spraying rarely is required, and until the three treatments during the very wet summer of 1989, the fairways had only once before been sprayed with a fungicide. Greens are mowed at 1/8" four times a week, and Alan told me that, aside from occasional damage caused by a machine or a vandal, he has never had to seed any of his greens.

Alan and his wife, Dolores, live in a house on the course a short distance from the exceptionally tidy maintenance yard. The shop area was equally neat and orderly. On the day I visited, Alan was looking forward to attending the GCSAA Conference and Show for the first time. By the time this is printed, it will have been some weeks ago. I hope you enjoyed it, Alan.

PAUL POWONDRA
SUPERINTENDENT

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Top dressing - a superintendent's perception

Peat-humus has frequently been used as a soil amendment in topdressing and soil mixtures. The legislation to protect the wetlands of the United States has made peat-humus more difficult to obtain. As peat-humus becomes increasingly more difficult to obtain and more expensive to purchase, a natural tendency may be to substitute alternative soil amendments such as mushroom soil or sewerage sludge.

Some golf course superintendents believe that the soil amendments in use are of a peat or peat-humus product. This is not always the case. If the soil amendment is in question, superintendents may consider asking a topdressing or soil mixture supplier the source of the soil amendment. The superintendent may also want to send the topdressing to a recognized laboratory to determine the physical and chemical characteristics, but more importantly, to determine factors such as pH and soluble salt quantities.

With the ever-increasing demands of higher quality turf and faster greens, the golf course superintendents have made use of a number of techniques. One of these techniques may be more frequent topdressing

of golf course greens. In order to facilitate the application of topdressing to golf course greens, another technique may be to request a topdressing product with a very low moisture content. But, a superintendent also needs to consider the pH, the soluble salts and the growability of seeds and plants in the soil mixture. Remember, plants, including turfgrass grow in a soil media and reach their highest level of quality in the most optimum growing media. Are we putting too much emphasis on spreadability dryness of topdressing products and too little attention on the agronomic qualities of topdressing? Water does not leave a product until the temperature of a product, including topdressing, is heated to 160 degrees or higher. Also, the undesirable bacteria and seeds are destroyed in a soil at 160 to 170 degrees Fahrenheit; whereas, the desirable bacteria and other characteristics needed for seed germination are destroyed when temperatures reach and exceed 200 degrees Fahrenheit. Based on the above, it is obvious that the dryness of the topdressing and growability may not be compatible.

The superintendent's perception may be that the drier the topdressing, the better, but in the final analysis, other parameters may be equally or more important over the long term.

The answers to the above questions will become available with field observations and laboratory testing for physical and chemical characteristics. Will what we perceive as being the best today, really be the best for tomorrow?

The following universities and laboratories state that peat is the preferred soil amendment:

- a) Penn State University
- b) Rutgers University
- c) Cornell University
- d) Texas A & M University
- e) Agri-Systems of Texas, Inc.

SOIL AMENDMENT TYPES

PEAT HUMUS

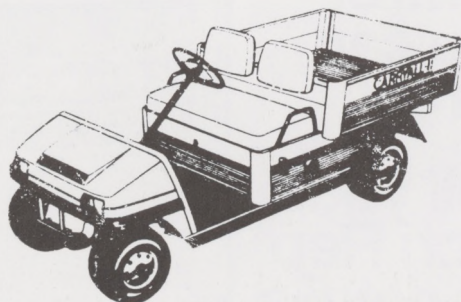
Advantages

- a) stated above universities and laboratories recommend and prefer peat humus
- b) excellent cation exchange capacity (CEC)
- c) excellent buffering material
- d) excellent soil amendment for plants
- e) has high water retention capacity
- f) has capacity to tie up metals in soil (i.e. EPA Superfund project)

(Please turn to page 14

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USGA golf house revisited

The United States Golf Association Golf House is not "new" to many Golf Course Superintendents Association of New Jersey members, but it is worth rediscovering. Renovations begun in 1986 have been completed, making room and improvements to have exhibits on two floors, plus an outdoor equipment testing area which has a seasonal observation deck.

The driving force behind the museum has been Janet Seagle, who worked at the USGA for 26 years, 17 of them as the museum librarian and curator. Ms. Seagle retired in December. She plans to spend her winters in Orlando, returning to her home in Mendham during the spring and summer. Janet will also continue her involvement at Golf House as a consultant.

In January I spoke with the new curator, Karen Bednarski, Ms. Seagle's assistant for three years. It was probably the most uplifting afternoon that I've had all winter. Karen's enthusiasm was infectious. She loves her job and the game of golf. Karen also enjoys meeting the wide variety of people interested in golf. Karen received her B.A. degree from the University of Vermont. In the very near future, she will be continuing her education at Drew University, seeking her master's degree in Museum Studies. In addition to a very active business schedule, Ms. Bednarski enjoys golf, has competed professionally in racquetball, and has entered at least two long distance running events.

Karen and I took a short tour of the museum, including the new temporary exhibit area. Every six months a new exhibit with a special theme is displayed on the second floor. The current exhibit, entitled "In Search of the Perfect Golf Course," would be of particular interest. The exhibit includes original architectural blueprints, and a computer game on which golf holes can be laid out.

I know that it will be very close to the spring busy season by the time many of you read this, but try and find time for a trip to the Golf House.

My visit to Golf House was typical of most of my trips to museums, landmarks, and historical places. I

had to push myself to get there, but once there, was too captivated to leave. I strolled through the rooms, disappointed that I had not left enough time to "read everything." As I turned into the second floor hallway, there staring in my face was one of my favorite golf memories. A sequence of 8-10 photographs showing Tom Watson's reaction to his chip-in at the 17th hole of Pebble Beach, which of course, capped his win at the '82 U.S. Open.

JOHN FENWICK
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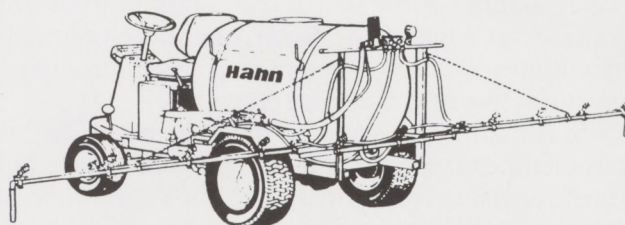
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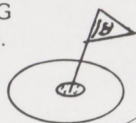
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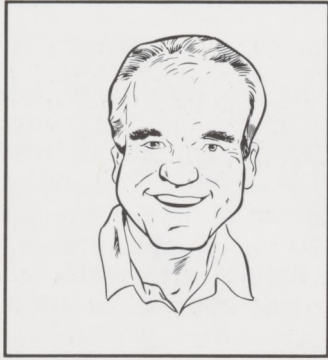
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PARKING LOT AND
CART PATH

CONSTRUCTION

DRAINAGE SYSTEMS
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GRADING



Jim Gilligan's Column

This winter the weather reached the extremes: extreme cold in December and unseasonable warmth in January. The grasses in December went deep into dormancy, at times there was some concern about their survival. Since it was an open cold month, desiccation or ice formation could have been a serious problem. Now it is the beginning of February and those fears have abated. There is now some wild talk about mowing greens.

The absence of this column (did you miss it?) in the last issue of the "Greenside" was caused by a significant change in my professional career. I have assumed a new responsibility as the golf course superintendent at the Richmond County Country Club on Staten Island, New York. It is a homecoming of sorts, since I was born and raised in New York City and had visited Staten Island many times as a child. For those not familiar with the governmental structure of New York City, there are five boroughs, one of which is Richmond. Richmond encompasses all of Staten Island.

Richmond County Country Club has a long and rich golfing tradition. The club celebrated its centennial in 1988. It is now the only private golf club in New York City and one of four remaining on Staten Island. The 120-acre course lies in the center of the Island on the eastern edge of the Staten Island Greenbelt that encompasses 2,500 acres of preserved land that is in use for active and passive recreation.

In acclimating myself to the golf course and trying to remember the course routing, I was startled by the beautiful vistas from the high ground. The New Jersey shoreline to the south from the Amboys to Sandy Hook are clearly defined across Raritan Bay. The elevation on the tenth tee is one of the highest along the eastern seaboard.

There is always a certain amount of apprehension in assuming new responsibilities, and this job was no exception. The transition was smoothed by the fine work done by my predecessor, Geoff Drake. Geoff initiated and completed a number of important major projects, including converting the *Poa annua* fairways to ryegrass. This will give me the opportunity to work with some of my theories of ryegrass management.

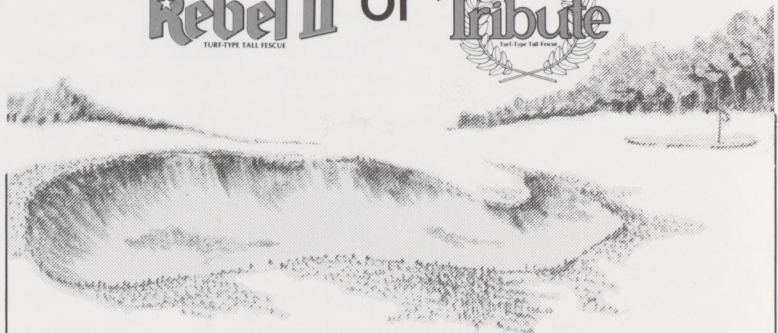
The cultural management of ryegrass is new to the northeast region and there is plenty to learn. The short history of ryegrass this far north has created a void in the management experience and the research data of ryegrass management. My experience with ryegrass is minimal.

The fall, appearance and playability were excellent. This is one year following the original establishment and the annual overseeding in 1989. Two applications of a suppressant herbicide were applied last fall to weaken the *Poa*. The December freeze concerned me. Ryegrass has not had a severe test under those cold temperatures. It can be sensitive to low temperatures.

Coming to work at Richmond County has created the opportunity for me to meet and work with a new group of associates. I've even ventured out to the tip of Long Island to visit. I'm anxiously awaiting the opening of the golf season this year, since this is a new opportunity for me to work with a different golf course and to meet the challenges of being a golf course superintendent.

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UST insurance is a must

GCSAA Sponsors UST Insurance Program

Affordable underground storage tank (UST) liability insurance is now available through the Golf Course Superintendents Association of America. Environmental Protection Agency regulations require UST owners to show evidence of ability to pay for any necessary corrective actions or compensate third parties for damages caused by a release from a tank. Evidence of the owner's ability to pay must be obtained by Oct. 26, 1990. Details about the insurance program have been mailed to members. For further information, contact GCSAA's Office of Government Relations at (800) 472-7878 or (913) 841-2240.

Underground Storage Tanks Must Be Retrofitted by September 3, 1991

The New Jersey Department of Environmental Protection has proposed substantial regulations concerning underground storage tanks (UST) which are expected to be issued as final regulations in early 1991. USTs will be required to be retrofitted with spill and overfill prevention mechanisms, cathodic protection systems and monitoring systems no later than Sept. 3, 1991. USTs used to store other than petroleum products must also install secondary containment systems under a proposed 1998 deadline.

Closure Requirements include DEP approved plan, fee and monitoring well

If a UST is taken out of service prior to these deadlines, significant obligations will still be imposed. USTs taken out of service after the adoption of the proposed regulations will be required to have a closure plan approved by the DEP prior to commencement of the removal work. DEP can be expected to charge a substantial fee for review and issuance of the closure permit. At least one monitoring well is also required as part of the closure plan. Currently, the DEP does not have the authority to require a monitoring well unless it is evident that a discharge from the UST has occurred.

Soil Contamination

Soil samples at UST locations should be taken because the DEP is currently allowing contaminated soils to remain in place provided there is no impact on ground water and the residual contamination is not at saturation levels (i.e., no free product present in soils-e.g., soils become saturated with petroleum hydrocarbons at approximately 30,000 ppm).

In order to avoid the potential expenses of retrofitting USTs under the proposed regulations, the USTs must be removed prior to the adoption of the final regulations. If contamination is discovered at any tank, soil samples should be taken to document the concentration of the contaminants in the soil and a monitoring well should be installed to determine groundwater impact. If the excavation does not show visible signs of contamination, soil samples should be taken to confirm that no discharge has occurred. This will eliminate the requirement to install a monitoring well.

All documentation regarding tank removal and discharge investigation and remediation should be retained in the event that future questions regarding contamination at those sites arise or in the event that ECRA becomes applicable to your operations.

Insurance Requirements under Federal EPA Regulations

By Oct. 26, 1990, all owners and operators of USTs must show that they would be able to cover the costs of cleaning up and repairing environmental damage should a leak occur. For most owners, this will mean obtaining UST insurance which, for non-petroleum industry tanks, has been largely unavailable or expensive. EPA requires \$500,000 per occurrence and \$1,000,000 to cover all the leaks that might occur in one year.

Reducing Risks

The following factors may help reduce premiums and the possible risk of leaks: (1) Double-walled USTs. (2) Newer tanks. (3) Smaller tanks. (4) Have tanks using a suction piping system as opposed to pressure piping system. (5) Have tanks installed by a certified firm. (6) Exceed EPA minimums for tank monitoring. (7) Have suffered no recent prior incidents.

References: NJ Register: August 7, 1989, Site Vol. 21, NJR pp 2242-2265 Federal Register: October 26, 1988, pp 43,330-

Hotlines: Bureau of Underground Storage Tanks: (609) 984-3156; NJ DEP USTs Hot Line (800) 722-TANK - for Registration and Billing Questions

EPA ACRA Hotline (800) 424-9346 (8:30 am - 7:30 pm EST) - devoted exclusively to providing confidential information.

Our thanks to Dr. Doug Mampe of the "Pest-O-Gram" and Tom Akins of the GCSAA "Briefing" for supplying much of the information contained in this fact sheet. The above was further adapted from the Alliance for Environmental Concerns January 1990 newsletter. In New Jersey underground storage of petroleum and non-petroleum products are coming under tremendous scrutiny.

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Golf course superintendents do it with calibrated equipment

As you ponder all the pesticide and fertilizer requirements that your course will need for 1990 and add up the costs, remember that the single biggest boost you can give to your program is the use of properly calibrated application equipment.

If your sprayer or granular application equipment is not calibrated correctly, you can be over- or under-applying pesticides and fertilizers. This will result in either too much product applied and, therefore, a waste of precious budget dollars, or too little product applied, which may result in a less than satisfactory job.

Your equipment should be calibrated on a frequent basis and preferably before each application. During the late winter months is an ideal time to recalibrate each piece of equipment. In a Nebraska study application, equipment at 53 golf courses was evaluated. Researchers found that the average application error was 26%. The ranges given were from 0.1% to 177%. Over-application was made on average at a rate of 19%. Think of that percentage in terms of your pesticide budget! Eighty-four percent of the ap-

plicators were spraying within equipment guidelines. The remaining 16% were either wasting money or doing a poor job or both. Since many New Jersey golf courses contain ponds or streams, accidental over-application could have pretty serious consequences.

A good calibration review should include measuring and adjusting the system's pressure, ground speed and nozzle discharge. Remember to select the appropriate nozzle for the job. You can't tell if a piece of equipment is calibrated properly unless you measure for it. Visual inspection won't detect errors until they approach a 50% rate.

There are a number of sources for help on the "how to's" of pesticide application equipment calibration. The manufacturer's manual, county agricultural agent and other experienced applicators are all good sources.

For additional information regarding calibration of Knapsack sprayers and handguns, ask your local cooperative extension service for Fact Sheet 178. For calibration of granular application equipment, ask for Fact Sheet 177.

ILONA GRAY



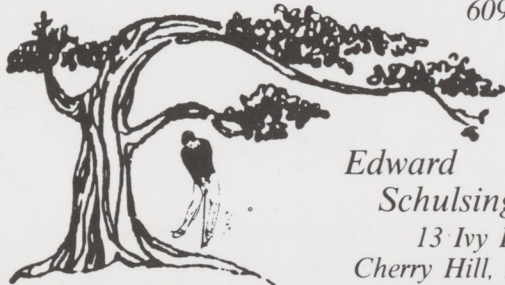
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Gypsy moth problem increasing

After enjoying several years of declining populations, the gypsy moths are again returning in full force. Defoliation in 1988 occurred on only 7,400 acres, but in 1990, it jumped to 137,000 acres and it could easily exceed 200,000 acres in 1990.

Based on recently completed egg mass surveys by the New Jersey Department of Agriculture, the heaviest concentrations of the pest are expected to occur in Hunterdon, Warren, Morris, Sussex, Somerset, Union and Essex Counties.

If you suspect a gypsy moth problem on your golf course, you can easily check for it by counting egg masses on your trees. You simply set up a 1/40th acre plot (18.5 foot radius) and count the number of egg masses on the bole and the undersides on the limbs on the trees within the plot radius. If there are more than 13 egg masses in this sample, you can expect heavy gypsy moth feeding next spring. Establish at least 10 plots in as close to a natural, undisturbed setting as possible.

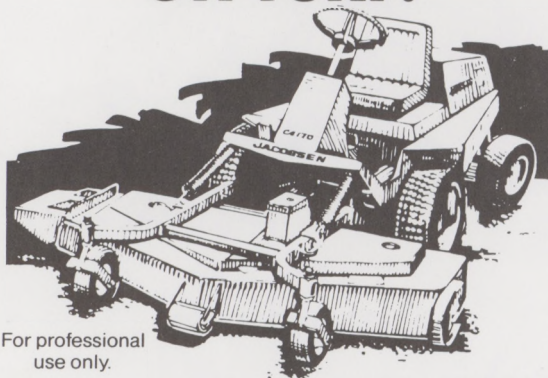
If you need to spray, you have a choice of both biological and chemical spray options. The biological option is *Bacillus thuringiensis*, or *B.t.* Aqueous formulations of either Foray 48B or Dipel 8AF seem to work the best. It should be applied to early instars (when larvae are generally under 1/2 inch long) and

thorough coverage of tree is essential. Normally, the best application time is in mid-May in north-central New Jersey. A second spray in late May when larvae migration occurs will probably not work since large caterpillars can eat material without dying. *B.t.* kills only lepidopterous larvae feeding at that time and does not impact other insects on wildlife.

An effective chemical option that is highly selective to leaf eating insects is called Dimilin (diflubenzuron). This insecticide is an insect growth regulator which prevents the gypsy moth from molting to its next instar. It does not kill beneficial wasps (including honeybees), beetles and parasitic flies. Dimilin does not readily wash off and is effective throughout the entire larval feeding season of the gypsy moth. However, since it takes several days to work, spraying it on large fifth instar larvae will eventually kill the insect but feeding might continue for several days. Therefore, the spray window for best effectiveness is between May 7 to May 21. As with any insecticide, follow the label carefully since this material is highly toxic to crab, shrimp and other aquatic invertebrates and, therefore, should not be applied directly to water or wetlands.

JOHN D. KEGG, CHIEF, BUREAU OF PLANT PEST AND DISEASE CONTROL

JACOBSEN. TOUGHEST CATS ON TURF.



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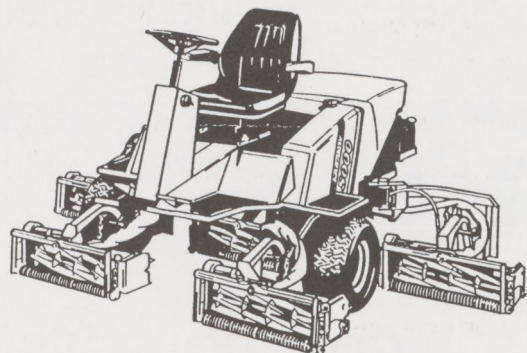
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Top dressing

(Continued from page 8)

- g) is a natural product
- h) has low pH (typical range 4.8 to 5.6)
- i) has low soluble salts

Disadvantages

- a) harvested in the wetlands and, therefore, is regulated
- b) costly to remove
- c) difficult to remove during a wet season

MUSHROOM SOIL

Advantages

- a) available at the present time
- b) inexpensive to obtain/cheap

Disadvantages

- a) typically high in silt and clay
- b) may have a high pH
- c) may have high soluble salts
- d) is a by-product

SEWAGE SLUDGE

Advantages

- a) inexpensive to obtain/cheap
- b) available at the present time

Disadvantages

- a) content unpredictable
- b) DER, Penn State Univ., Cornell Univ., Rutgers Univ. Texas A & M Univ., and Agri-Systems of Texas do not recommend sewage sludge for a green house soil amendment or as a soil amendment for high traffic areas
- c) is a by-product

SAWDUST

Advantages

- a) normally available
- b) inexpensive to obtain/cheap

Disadvantages

- a) varies according to wood type (i.e. oak sawdust removes available nitrogen from the soil)
- b) poor cation exchange capacity (CEC)
- c) poor buffering material
- d) poor soil amendment for plants
- e) not recommended by universities or laboratories

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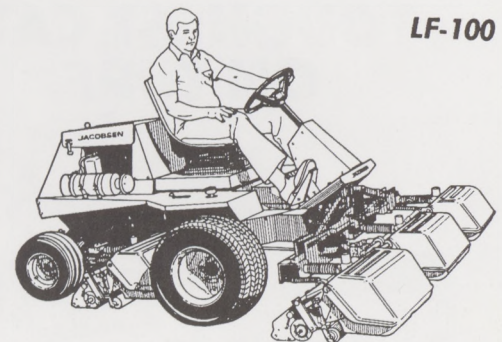


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President's Message

(Continued from page 3)

and *Dave Mayer* - Runs the golf tournaments at the monthly meetings.

Sweaters, Shirts and Jackets: *Dave Mayer* and *John Carpinelli* - Responsible for selling apparel with GCSANJ logo.

Field Day: *Len Forlenza* and *John Carpinelli* - Responsible for all aspects of Field Day.

Newsletter: *Bruce Peebles* - Monitors newsletter and is liaison between Editor and Executive Committee.

Meetings and Speakers: *Tom Grimac* and *Bruce Peebles* - Establishes locations for monthly meetings.

Public Relations: *Marty Mantell* - Disseminates information on GCSANJ activities to the press and the public.

Association Relations: *Dave Pease*, *Bruce Cad-enelli* and *Dick LaFlamme* - Represents GCSANJ with the LPGA, MGA and the Alliance for Environmental Concerns.

National Liaison: *Steve Malikowski* - Liaison between GCSANJ and GCSAA. Represents our Association as a voting delegate.

Finance Committee: *Chris Carson* - New committee formed to monitor our budget and keep our Association in the black.

Commercial Representatives: *Shaun Barry* and *Steve Chirip* - Liaison between commercial members and Executive Board.

One final note, special congratulations to *Ilna* for the "Best cover for newsletter 16 pages and over" award given by the GCSAA.

Have a good season!

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Hazardous Waste Management - Disposal of Pesticides 609-292-8341

NJ Department of Health - Questions about health effects of pesticides 609-633-2043

NJ Poison Information & Education System - Emergency Situations 1-800-962-1253

Pesticide Control Program - Complaints, Questions 609-530-4132

Pesticide Control Program - Test Sign-Up 609-530-4133

Pesticide Control Program - Public Outreach 609-530-5070

WE'VE GOT YOU COVERED

One easy way to support the great work done by the Golf Course Superintendents Association of New

Jersey is to purchase GCSANJ clothing. Place your order for hats, shirts and sweaters today. See the order form appearing in this issue of the "Greener-side."

USGA PROMOTES JIM SNOW

Jim Snow has recently been promoted to national director of the Green Section of the United States Golf Association. He is taking over for William Bengeyfield who is retiring.

On behalf of the "Greener-side" and the GCSANJ, we would like to extend our sincere congratulations and good wishes to Jim Snow.

NEW EXTENSION SPECIALIST IN SOILS

Dr. Joseph R. Heckman joined the Rutgers University Extension faculty as of January 1. This position was previously held by Dr. Roy Flannery who retired. Dr. Heckman earned his MS degree in agronomy from the University of Maryland and his Ph.D. in soil science from North Carolina State University. Prior to joining the Rutgers Extension faculty, he worked for the USDA at the Beltsville, Maryland station.

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GCSANJ Clothing Order Form

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Please make checks payable to the Golf Course Superintendents Association of New Jersey, 66 Morris Ave., Springfield, NJ 07081

Low maintenance landscaping

Low maintenance landscapes begin by matching landscape plants with their appropriate site requirements. Sun and soil, wet versus dry are major considerations.

THE SUN

Full sun exposure is essential for many of our major shade trees. The oaks and ashes are typical examples. All major conifers, except hemlocks and yews, (the spruces, pines, true cedars and junipers, for example) require full sun.

In contrast, broadleaf evergreens (rhododendron, holly, ivy) will scorch, bud blast or die with late afternoon winter sun exposure.

SOIL CONDITIONS

Very few plants thrive under wet site conditions. The roots of white pines and yews are especially sensitive to root decay. In fact, in order to provide screen plantings of conifers in poorly drained sites, they have to be grown on berms or in raised planters.

Some plants are especially sensitive to drought. Rhododendrons, azaleas and dogwoods suffer root damage during extended dry spells which makes them vulnerable to winter injury. Doublefile viburnum, which wilts severely under drought stress, can serve as an indicator plant. When it calls out for water, it is also time to water rhododendrons and dogwoods.

Many of our cultivated flowering dogwoods are so pampered they can only grow under optimum soil moisture conditions. Dr. Elwin Orton's new *C. kousa* x *C. florida* hybrids exhibit more hybrid vigor and site tolerance than either parent. They will soon be on the market under the names of 'Gallaxy,' 'Constellation' and 'Ruth Ellen.'

AVOID MONOCULTURE

It is always a good idea to avoid landscape plants which are prone to fatal or disfiguring disease and insect attacks; but plagues can be difficult to predict. One way to avoid potential problems is not to overplant a single species. Creating a banquet condition for insect pests and diseases has caused the demise of the American Elm, the Honey Locust, and the Austrian Pine and still we haven't learned this lesson: East coast communities are frantically overplanting Gallery Pear cultivars. Likewise, fast-growing, weak-wooded trees should be avoided or eliminated from high visibility areas. Silver maples, mulberries, Lombardy poplars and Tree of Heaven all cause various maintenance problems.

MULCHES AND ALTERNATIVE GROUND COVERS

Eliminate turf where it won't grow or is difficult to maintain. Shade-tolerant ground covers, organic

mulches and gravel underlaid with black plastic can reduce mowing time and lawnmower blight on low branched trees and shrub masses. Shade-tolerant ground covers can be planted into beds of wood chips which will reduce water loss and weed control during the three years required for establishment. Once these ground covers are flourishing, they are nearly maintenance free.

ESTABLISH A MAINTENANCE PROGRAM WITH PRIORITIES

High visibility areas such as arrival spaces, outdoor dining areas or views from the building should receive the most attention. Changing displays of bulbs for spring, annuals for summer and chrysanthemums for winter can be massed for visual impact and ease of maintenance. Low maintenance masses of herbaceous perennials and ornamental grasses are also growing in popularity. Portable planters can be effectively employed where solid pavement prohibits in-ground plantings.

Low visibility or infrequently used areas can have the appearance of manicured maintenance through the use of bold, simple, curving bed lines. Mowing strips, berms and bollards can also be employed to achieve a sharp definition between turf and more naturalistic low-maintenance areas. Low maintenance, however, does not mean no maintenance. Undesirable native and alien invaders (poison ivy, greenbriar and multiflora rose, Hall's honeysuckle) will require annual control.

Programming the entire property on a calendar basis is the name of the game. Scheduled preventive maintenance in the long run produces a low-maintenance landscape.

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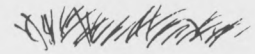
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