

THE GREENERSIDE

Official Publication of the
Golf Course Superintendents Association of New Jersey

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Integrated Pest Management and the Golf Course

The Golf Course Superintendents Association has released the following report on Integrated Pest Management. Our readers should note that superintendents are increasingly relying on IPM techniques and thus are minimizing their reliance on chemicals. Please note that our own IPM specialist, Chris Casey, a frequent contributor to "The Greenerside," is quoted in this report.

FINDINGS

Golf courses are increasingly using Integrated Pest Management (IPM) to control pests through a variety of carefully planned methods. This trend will increase in order to meet industry concerns over reliance on chemical pest control strategies. IPM has proven effective in a variety of contexts and represents an environmentally sound means by which golf course superintendents can harmonize course requirements with nature.

DEFINITION OF IPM

According to Dr. Victor A. Gibeault of the University of California at Riverside, "IPM is defined as multiple tactics used in a compatible manner in order to maintain pest populations below levels that cause economic or unacceptable aesthetic injury without posing a hazard to humans, domestic animals, or to other nontarget life forms. Integrated means that a broad interdisciplinary approach is taken, using scientific principles of plant protection, to fuse into a single system a variety of

management strategies and tactics."¹

Fulfilling this definition requires the pest manager to establish measurable
(Please turn to page 6)



25th GCSANJ
Annual Turfgrass
Equipment,
Irrigation & Supplies
Field Day

Rutgers Stadium &
Golf Course
October 3, 1989

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THE GREENERSIDE

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Ilona Gray, *Editor*

Bruce Peeples, *GCSANJ Newsletter Liaison*

Glenn Miller, *Business Editor*

Bruce Cadenelli, Jim Gilligan,

Paul Powondra

Contributing Writers

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

For Ad Placement: Glenn Miller, (201)528-6775, P.O. Box 241, Brielle, NJ 08730.

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66 Morris Ave., Springfield,
New Jersey 07081

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EDITORIALS

"Extra Effort"

Extra effort makes the difference between just getting by and reaching the level of achievement and quality that is today's standard for a Golf Course Superintendent. This extra effort appears in many areas. The first place to look is on the golf course itself. Here in New Jersey that extra effort will bring four major USGA competitions for 1990 to our state. These include some pretty prestigious tournaments: the Senior Open at the Ridgewood CC (Ed Walsch); Curtis Cup at Somerset Hills CC (Les Stout); Women's Amateur at Canoe Brook CC (Skip Cameron); and Girl's Junior at Manasquan River Golf Club (Glenn Miller).

Extra effort also can be seen in the GCSANJ as well. Woody Allen once said that "80% of success is just showing up." Individuals who belong to GCSANJ and take advantage of any of its benefits reach that 80% level real fast. A lot of our members make that extra effort to insure a 100% score. Whether it's monthly meetings and tournaments or this year's boat trip, the GCSANJ runs on individuals who give that little bit extra that ensures success. Here at "The Greenerside" we have our share of individuals who put out that extra effort as well. Recently, "The Greenerside" has been getting a lot of positive comments from our advertisers and from other Golf Course Superintendent magazines and newsletters. It's the great stories and features that are attracting all the attention.

Where do we get all these great stories? Inquiring editors from other Golf Course Superintendent magazines really want to know! We get them from our readers. It's no secret. We think our readers provide us the best copy in the country! Sometimes it's an inside interview by the wife of superintendent. Or the contribution from the world-famous faculty of

Rutgers University. A lot of time our stories come from individual superintendents who want to give that little bit extra to make sure that the event or tournament is covered the way they think other superintendents would like.

To all those who make the extra effort, this issue is for you!

ILONA GRAY

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PRESIDENT'S MESSAGE



Steve Finamore,
CGCS
President GCSANJ

Dear Members:

Your association is looking for your support again. We have a commitment to the Patch Research Project at Rutgers University to raise \$25,000. We thank those clubs, golf courses, individuals, and suppliers who contributed last year, but we are asking for your support again this year. We must realize that the government is not going to support these projects and that the beneficiaries will have to come up with the funds. We all have benefitted from this research and should all contribute.

Another commitment we're looking to you, our members for, is your attendance at our Field Day on October 3. Monies from our Field Day help to defray our operating costs. Without this event, your dues would be substantially higher. Golf course superintendents' attendance has been down in recent years. Your support would put our Field Day in a much stronger position, not to mention the benefit of keeping you current in our ever-changing industry.

See you at the Field Day.

Steve Finamore, CGCS
President, GCSANJ



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CALENDAR

- October 3** **25th Annual Turfgrass Equipment, Irrigation and Supplies Field Day,** Rutgers Stadium and Golf Course, Piscataway. Contact: Dr. Henry Indyk (201) 932-9453 and Len Forlenza, (609) 871-2055
- October 5** **GCSANJ Championship,** Shackamaxon Golf and Country Club, Westfield, Contact: Jack Martin (201) 233-3608
- October 6** **NJSGA Annual Meeting Golf and Dinner,** Upper Montclair Country Club, Clifton. Contact: Robert Dickison (201) 779-7508
- October 12** **The MET Area Superintendent Association Team Championship,** Meadow Brook Club, Jericho, NY. Contact: Charles Cross (516) 935-6505
- November 6** **GCSAA Seminar: Golf Course Safety, Security & Risk Management,** East Brunswick. Contact: GCSAA (800) 472-7878
- November 7-10** **NY State Turfgrass Association: Turf and Grounds Exposition,** Rochester Riverside Convention Center, Rochester, NY. Contact: NYSTA (800) 873-TURF
- November 16** **GCSANJ Annual Meeting,** Hollywood Golf Club, Deal. Contact: Bruce Cadenelli (201) 531-3609
- November 21** **Alliance for Environmental Concerns Annual Meeting,** Jamesburg. Contact: Ilona Gray (201) 595-7172
- December 4-7** **NJ Turfgrass Expo,** Resorts International, Atlantic City. Contact: Dr. Henry Indyk (201) 932-9453
- February 19-26** **GCSAA International Golf Course Conference and Show,** Orlando, FL. Contact: GCSAA (800) 472-7878



GCSANJ NEWS

SCRAMBLE AT BOWLING GREEN

Warm weather and sunny skies marked the setting for June's meeting at Bowling Green Golf Club. Although heavy rains earlier that week provided wet, soggy conditions, the scramble format was a great success. Teams consisting of four players from flights A, B, C, and D tested the narrow track located in the scenic mountains of North Jersey.

After an enjoyable outdoor barbecue, Sean Reilly of Reilly Land & Environmental Inc. gave an interesting talk on the wetlands issues. Following this presentation, Shaun Barry and Steve Chirip presented the winners with their prizes. All in all, everyone left with a smile.

First prize in the scramble tournament with a score of 65 were Shaun Barry, Tony Bolcoto, and Jonathan Snore. Two teams tied for second place with a score of 67: Harry Harsin, Jeff Theibault, Bob Calabro, and Joe Connors formed one team, and Steve Finamore, Kent Caldwell, Ron Hitzel, and Rich Gilmore formed the second team. Larry Dodge made the longest drive and also achieved the closest to the pin on the #3 hole with a shot that came in within 23 feet. Dennis Smalldone made it closest to the pin on the #16 hole with a drive that came within 15 feet, 2 inches, accord-

ing to Shaun Barry, "The Greenerside's" official reporter for this event.

DAVE MAYER AND SHAUN BARRY

COLONIA MEETING - ONLY FOR THE DIEHARDS

Talk about the three H's! If it wasn't for the fact that I was hosting the superintendents meeting on July 27th, you wouldn't have found me on a golf course that day. The Pythium was running, brown patch was waiting in the wings, the temperature and humidity were both at 98, but 60 brave souls ventured out into the hot box. Despite these conditions, I think everyone enjoyed themselves and there was some excellent golf played through the haze.

First place, with a 64 in the two man best ball low net, went to Harry Harsin and Jeff Theibault on a match of cards. Second place, also with a 64, went to Dave Lerner and Bill Brewer on a match of cards with third place winners Paul Granger and Jeff Montecalvo. Longest drive went to Les Stout (again!!) and closest to the pin went to John O'Keef on the second and to Godfrey Drake on the sixth. Skins were as follows: Roy Griffiths on the first; Dave Mayer on the seventh; Dennis Wrede on the eighth; Dick LaFlamme on the eleventh; Chris Gaynor on the fifteenth; and Jim Sheridan on the seventeenth.

Great going winners! And our thanks to Shaun Barry, Dick LaFlamme and Steve Chirip for another job well done.

After some excellent hors d'oeuvres and a fine dinner, Doug Dekker gave a talk and slide presentation on the Enviro-Caster, an environmentally sensitive disease predictor. This computerized device tracks all conditions from soil moisture to wind velocity and helps in predicting the potential for disease. Doug told us to contact Paul Granger at Storr Tractor for additional information on this product.

CHRIS GAYNOR, SUPERINTENDENT

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FEATURES:

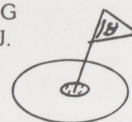
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Field Day support needed



Representing Rockland Chemical Co. at the 1988 Field Day is Steve Stys (r) and Joseph Tokoly.



"Manning" the Jonathan Green display were Anthony "Rip" Rippel (r) and Ed Barbano.



Standing at the W.A. Cleary Chemical table are Bron Zienkiewicz (l), Shaun Barry (c), and Russ Ward.



Enjoying last year's Annual Turfgrass Equipment, Irrigation and Supplies Field Day are John Wantz, Superintendent of North Jersey CC and holding the rake Sky Bergen of Vaughan's Seed Co.



Showing the Koonz Sprinkler Supply Equipment are William Koonz (l), Joe Schiazz (c), and Matt Ledwith.



Standing in front of Aqua-Flo, Inc.'s display is Jerry Purcell.

As you should already know, October 3 is GCSANJ's 25th Annual Field Day. What you may not realize is the importance of this event.

This is the only source of income outside of dues that we have. It is also an opportunity to help the commercial people who support us in many ways throughout the year.

Your help is needed in the way of attendance and "PROMOTION." That's right, promote Field Day to all

the people you know in landscaping, lawncare, garden centers, cemeteries, sports field maintenance, etc. Announcements will be sent to all members. Use them and, if needed, additional copies can be obtained by calling **Len Florenza** at (609) 871-2055 or **Dr. Henry Indyk** at (201) 932-9453. We also could use some help on the committee. If you would like to help, call me at the above phone number.

We'll see you October 3rd.

LEN FLORENZA

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Integrated pest management

(Continued from page 1)

tolerance levels for pest populations, monitor turf areas for pest incidence, maintain accurate records of monitoring data, and select appropriate actions in response to changing pest populations.

The range of tactics available in an IPM system include the following:

- Regulatory: Quarantines, seed certification, pesticide laws;
- Physical: Trapping, screening, hand destruction, harassment;
- Chemical: Attractants, repellents, sterilants, growth inhibitors, soaps, synthetic pesticides;
- Cultural: Water management, sanitation, aerification, thatch control, fertilization, mowing height;
- Biological: Use of resistant varieties, natural enemies, propagation of pest diseases/parasites, release of sterile pests.²

In addition to these control strategies, construction techniques which utilize proper drainage, birthing, plant selection and so forth are important contributors to effective IPM.

One of the objectives of IPM is to use chemicals only when necessary, but it is a misconception that IPM programs always replace chemical control. Rather, IPM encourages the pest manager to use chemicals wisely, which can mean less often.

EFFECTIVENESS OF IPM

IPM has proven effective in a wide variety of contexts. In a study of tree care reported by Dr. Michael J. Raupp, an entomologist at the University of Maryland, pesticide use was reduced by more than 90% when IPM was utilized.³ Dr. Don Short, extension entomologist at the University of Florida, recently reported that in a three-year study in south and central Florida, spot treatment with pesticides and weekly monitoring of the turf resulted in good control of cinch bugs and webworms. "This is primarily due to the fact that we are not killing off beneficial organisms that may be providing more control than pesticides," Dr. Short concluded.⁴ As **Christine Casey**, an IPM agent notes: "Landscape IPM programs have shown great potential, having reduced pesticide usage up to 70% while improving plant quality. When monitoring costs are included, this corresponds to a cost reduction of 20-30%.⁵

An IPM plan that could serve as a model for other courses was recently adopted by the Sherman Hollow golf course in Vermont after negotiations between the Sherman Hollow management and the Environmental Protection Agency. The plan provides for the monitoring of the course by a turfgrass expert, the limited use of chemicals when necessary, and the keeping of precise records.⁶

Another IPM method that has proven effective is the use of pests to control pests—biological agents that

attack pests and that are more effective than chemical agents.⁷ This method can be as simple as building bird houses on golf courses that will attract insect-eating bird species.⁸ Computers are also being used at a number of golf courses to monitor pests, predict future infestations, and arrive at balanced solutions to pest problems.⁹

ROLE OF GCSAA

In addition to the training required under federal and state laws, GCSAA sponsors an extensive education program to assure that professional golf course superintendents are well-trained in safe pesticide application techniques. While these techniques have not always been understood as part of an IPM approach, many existing practices are easily assimilated within IPM.

GCSAA supports IPM at another level through funding for basic research on turfgrass. The joint USGA/GCSAA research project on turfgrass stress is designed to develop hardier plant materials capable of withstanding pests and stresses with lesser maintenance.

CONCLUSION

Golf courses increasingly are relying upon IPM in their operations. In fact, many IPM techniques have been used for years without explicitly being labelled IPM. Integrated Pest Management is a proven method that can help minimize reliance on chemicals while effectively controlling harmful plant and animal pests.

¹Victor Al. Bieault, et. al., "Integrated Pest Management for Turf," California Turfgrass Culture, Spring 1981, p. 13.

²Zachary Grant, "What Is Integrated Pest Management?" Golf Course Management, Nov. 1987, p. 12.

³Michael J. Raupp, et. al., "The Concept of Key Plants In Integrated Pest Management for Landscapes," Journal of Arboriculture, Nov. 1985, p. 317.

⁴Zachary Grant, "Why IPM? Some Advantages to Consider," Golf Course Management, Nov. 1987, p. 81.

⁵Christine Casey, "IPM And The Golf Course Superintendent," N.J. GCSA "The Greenerside," March-April 1988, p. 8.

⁶Zachary Grant, "IPM Update: The Sherman Hollow Story," Golf Course Management, Nov. 1987, p. 6.

⁷Scott S. Warren, "Controlling Nature with Nature," USAIR, Sept. 1987, p. 10.

⁸"Working With Nature's Own to Achieve Insect Control," Golf Course Management, April 1987, p. 28.

⁹Jeff Chaltas, "Of Growing Interest: IPM Usage Today," Golf Course Management, Feb. 1987, p. 94.

Copies of this report are available from GCSAA at (800) 472-7878.

LETTER TO THE EDITOR

Dear Editor:

I always enjoy reading Bruce Cadenelli's very well thought out columns and articles in "The Greener-side." I particularly wanted to compliment you on his article in the July-August edition, entitled "Water for the Future."

The use of effluent water for golf courses has also been on my mind for a long time, probably first dating from the USGA/GCSAA/NGF wastewater irrigation conference held in Chicago back in the 1979-1980 timeframe. But I have found that promoting the idea of effluent use in the Northeast is still a very tough sell. Most of the engineer types that I talk with scoff at the idea or, if they have an open mind, ask what to do with the effluent in the Winter. Regrettably, we continue to see new golf courses, particularly municipals, that think nothing of hooking into the local water supply as their irrigation source. Sadly, here in Massachusetts, the state authorities do not even allow spray irrigation of effluent on golf courses. They haven't accepted the technology!

In reading "The Greener-side" over the past several years, I have a good sense as to how water shortages and droughts have impacted the golf and turf industry in New Jersey. GCSANJ has been on the leading edge, in not only gauging the impact on the golf industry, but in working with the various agencies to come up with viable solutions. While it's true that it will be physically impossible to connect effluent sources to many of our golf facilities in the Northeast, I am convinced that the reason effluent is not considered more often is the perception that there are still sources of potable water readily available and that this will always be so. As we both realize, it is this kind of thinking that must be buried before effluent and other water efficiency programs will be the norm.

I applaud Bruce Cadenelli and "The Greener-side's" efforts to encourage the GCSANJ Turfgrass Research Foundation to tackle these issues. It is a research and educational goal that is long overdue in the Northeast!

Sincerely,
GRA NORTHEAST

John La Point
Vice President

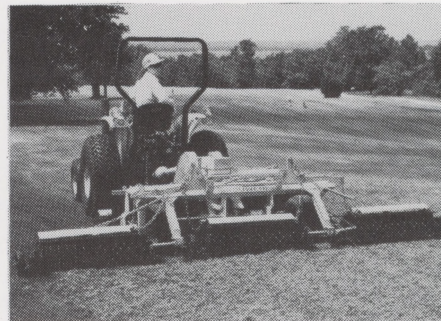
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by C. Richard Skogley

OSU STUDIES

The one agricultural crop that most Americans enjoy growing right up to the front door is turf.

Are you aware that turf and conventional crops have much in common? They both need soil as an anchor to provide water and nutrients for growth. And they both manufacture food from carbon dioxide in the soil, air, and water by photosynthesis, through the energy provided by sunlight.

Establishment and care of turfgrass is economically important to our state and the nation. Five years ago, it was estimated that more than 43 million dollars was expended annually on turfgrass in Rhode Island. In addition, commercial sod production acreage here exceeds 3,000 acres, making it our second largest agricultural commodity. This production adds \$15 million to the state's economy.

Turfgrass means many things to different people. It may be grown to produce a cushiony living carpet with physical and aesthetic appeal for sports and recreation, home lawns, and soil conservation. It is just about the best soil improving crop we can grow.

Some folks take a keen interest in working to develop an area of beauty; others find it a chore. It may provide exercise to some, a challenge to others. We do know that turfgrass holds the soil and prevents erosion. It can change a bare, dusty, or muddy soil surface into a playground. A good lawn invariably increases property value of a home.

Grasses, during photosynthesis, utilize carbon dioxide from the air, and release pure oxygen. A grass surface absorbs heat from the sun and helps cool our environment on hot days. Turfgrasses help cleanse our environment by absorbing dust and impurities from the air. With all of the benefits of turfgrass, it would seem worth the effort and expense to continue our general fondness for the product.

In recent years (and with increasing frequency), we hear cries that the fertilizers and pesticides used in the culture of this crop are harming our environment. It is unfortunate that this concern has often been the focus of the news media in their efforts to sensationalize—not factualize.

It's true that excessive use of mostly anything can be harmful. With rare exceptions, however, no proof exists that the fertilizers and pesticides used to help develop good stands of grass have harmed our environment—or anybody in it. Without a reasonable knowledge of soil science, microbiology and chemistry, no one can fashion himself an authority on the subject of environmental pollution.

Studies have been in progress for many years to determine the fate of chemicals when applied to plant foliage and soils. Investigations conducted at Ohio State University more than 10 years ago have shown that lawn grasses and the soil under them are effective filters.

Water running out of drains underlying test fields covered by Kentucky bluegrass showed that only three-tenths of one pound of nitrogen had leached into the subsoil annually on each acre. Twenty times as much was recorded for fields planted with cultivated crops, such as corn. Even when the bluegrass turf was heavily fertilized, no more than six-tenths of a pound got into underground water. These amounts of nitrogen filtering through sod are far less than those occurring in natural rainfall. Rainwater measured 16 pounds of nitrogen for each acre.

Where grass is present, most of the nitrogen in rainwater is picked up by the grass and the rich soil they help create. No need to fear water pollution because you fertilize your lawn. Instead, think of it this way: vigorous grass helps diminish pollution.

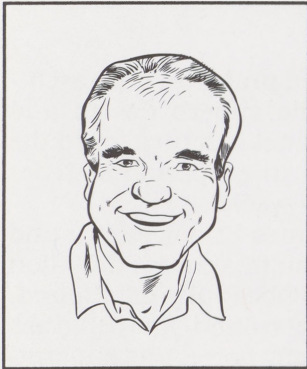
URI STUDIES

More recent studies at the Rhode Island Agricultural Experiment Station and elsewhere have clearly shown similar results—very little runoff or infiltration. This is also the case with the usual weed control chemicals, the insecticides, and the fungicides that are available for our use. Properly used, they are not "poisons" except to the weed, insect or disease. As a rule, these pesticides are held in the soil surface where they are quickly broken down to their constituent elements by the microflora and microfauna in our dynamic soil environments.

Good, acceptable stands of grass can be developed with moderate use of chemicals. In New England, some of those products will be needed each year, however, to develop and maintain a stand of grass that will provide all the good things we expect and desire of turf grasses.

C. Richard Skogley is the turfgrass management specialist for URI Cooperative Extension. He directs the University's turfgrass research facility on Plains Road in Kingston.

Reprinted with permission from the "In Touch" Bulletin of the University of Rhode Island Cooperative Extension.



Jim Gilligan's Column

What happened anyway?

(Continued from previous issue)

It continued to rain through the Summer. June had more than average, July had record rainfall, and August showed some normalcy early on, but as the month progressed, the rains returned. We are still pushing water while mowing, but the nights are cooler and the threat of last year's disaster is diminishing.

Rain has a way of creating a false sense of security. Knowing you can't do much in the rain except apply insecticides, your thoughts turn to all the mowing facing you when it clears and forgetting the problems of disease, wet wilt, and algae that are camouflaged by the lush growth. These are serious problems, but the one that can be the most damaging is the short intense hot spell that bakes the saturated grass. Boom! You can't believe the grass could expire so quickly. The other problem is the clear, cool, dry spell following the rain that wilts the grass on a pleasant Sunday afternoon.

With all the rain we have had this year and after our experiences last year, we should be getting good at handling adverse weather conditions.

One thing we learned this year is knowing what to do with the crews on rainy days. You know you can't send them home, so you become creative. You cross sweep the barn, but the barn floor is wearing then because of all the sweepings. We've swept our barn floor so many times we now know what color it is.

Another thought is to work in the rain. If you get the crews out first thing in the morning with rain gear, you have a fighting chance to have them work all day or maybe up until lunch. You just can't let them sit in the barn because you'll never get them out. Even when they work in the rain fully protected, there are complaints of sore throats, headaches, and fevers.

Another rain ritual is the decision to allow golf carts out. The course is saturated from an all-night rain and the first decision you are faced with in the morning is whether to let the golf carts on the course. Being a traditionalist, you disdain carts anyhow and your inclination is to say no! But you know about mid-morning, the weather will clear and pressure will mount to change your earlier decision, so to make your life easier you allow the carts out in the morning and all you hear all day is, "Why did you let carts out when the course is so wet?" This comes from some golfer who has just driven through a large visible wet area. Of course,

your last words are, "Keep the carts in the rough!" This year, with all the rain, the course is so wet, everyone seems to be cooperating and the damage is minimal.

Has anyone fertilized normally this year? I know the nutrients are depleted but the clippings continue to mount. The last reserves of a long-ago Urea-form application is finally being utilized and soon there will be no more Nitrogen. But the grass continues to grow overnight. One missed mowing and it looks like the fairways haven't mowed in a week. The continual mowing on poorly drained greens has to be taking a toll on the conditions. Soggy surfaces are susceptible to mower injury, ball marks don't heal, old cup plugs are rearing out of the ground to be scalped by the mowers, and the greens are still slow.

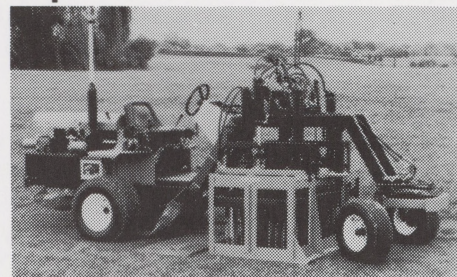
Without sounding like the proverbial "old timer," "this is the wettest summer I've seen in New Jersey golf in my 30 years working on the greens." This saga may: continue into the Fall; signal the beginning of an extended drought period like the early sixties, maybe this year has been a nightmare; perhaps I'll awake on a clear cool morning with a light dew, the greens will have been mowed and the forgotten Stimpmeter will measure an easy "ten." I'll then rush to post the number on the board for all to see.

As I write this, I wonder what **Willet Wilt** thinks of all this rain. Goodnight, Willet, wherever you are!

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GCSAA NEWS

1989-90 SCHOLARSHIP COMPETITION

Turfgrass management students interested in competing for a 1989-90 GCSAA scholarship award may now submit their applications to the Scholarship & Research Office at GCSAA Headquarters.

The applications are contained in packets that were distributed in April to more than 100 educational institutions with programs in turfgrass management or related fields.

Applicants are considered for leadership potential, scholastic capabilities, character, communication and social skills, and commitment to a career in golf course or turfgrass management. Candidates must have completed the first year of a two-year program that emphasizes turf management. Qualified graduate students are also eligible.

Interested students should contact their school's turfgrass management department or the GCSAA Scholarship & Research Office, 1617 St. Andrews Drive, Lawrence, KS 66047; (800) 472-7878.

TOURNAMENT BENEFITS ROBERT TRENT JONES ENDOWMENT FUND

The inaugural Robert Trent Jones Invitational, a golf event benefitting the Golf Course Superintendents Association of America's endowment fund named for the legendary architect, raised a record \$27,000 to support university scholarships.

The midsummer tournament was held at the **Metedeconk National Golf Club, Jackson, N.J.** — Jones' most recent New Jersey design. Teams made up of club superintendents, officials and members, representing 15 selected golf clubs from the Northeast, contributed \$1,500 each to support the Jones Endowment Fund. Metedeconk members made additional contributions to bring the total to \$27,000—the largest contribution to GCSAA's scholarship efforts ever by a single club.

Stephen G. Cadenelli, CGCS, GCSAA's secretary/treasurer and Metedeconk's coordinator for the event, described the Jones Invitational as "a very meaningful way in which to recognize the unique relationship between the golf course architect and the golf course superintendent, as well as an excellent opportunity to support the development of future golf course managers and the game of golf while enjoying a great day of golf and camaraderie."

Richard Sambol, who along with his son, Herbert, conceived and developed Metedeconk National, expressed optimism that the event would have a prosperous future. He also thanked manufacturers and distributors who donated hole sponsorships, saying the event "couldn't have happened" without their support.

Tournament players lavished praise on both architect and superintendent for the superb design and conditioning of the course. Cadenelli, in turn, cited the tremendous efforts of his crew in preparing Metedeconk during the previous soggy weeks.

The GCSAA Robert Trent Jones Endowment Fund was established in 1987 with a substantial donation from the New Jersey architect. Once fully capitalized, the fund will help pay college tuition for turfgrass management students considering careers as superintendents.

1988 TURFGRASS RESEARCH SUMMARY

Recently the 1988 Turfgrass Research Summary was released jointly by the Golf Course Superintendents Association of America and the United States Golf Association Green Section.

The 35-page report outlines various research projects being supported financially by the two organizations.

To obtain a copy of this report, contact the GCSAA office at (913) 841-2240.



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NEW GCSAA HEADQUARTERS SCHEDULED FOR COMPLETION IN 1991

The Golf Course Superintendents Association of America will break ground in early 1990 to begin construction of a \$4 million headquarters complex one mile from the groups' current Lawrence, KS site. GCSAA President Dennis D. Lyon, CGCS, said that the association's officers approved schematic plans for the project during a meeting at the U.S. Open in Rochester, NY.

"GCSAA's growth has mirrored that of the rest of the golf industry," Lyon said. "We now have more than 8,600 members and the association offers more services to them than ever before. This new building will allow us to keep meeting the needs of our growing membership and the golf community at large."

The new site is just west of the current GCSAA building, which has been located on the Alvamar Golf & Country Club since the association moved to Lawrence in 1974. Despite the relocation, the new headquarters will still overlook an Alvamar course: a new 18-hole championship layout being designed by architect Ken Kavanaugh and developed by Alvamar owner Robert Billings. Construction of the course is set to

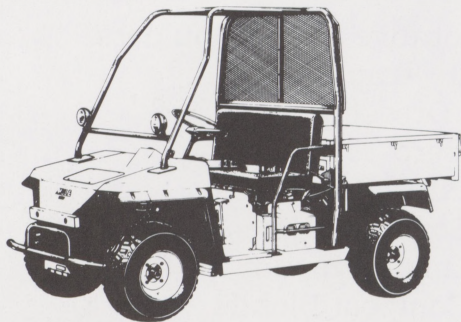
start early next year and both building and course should be complete and open in 1991.

"We plan to have the building finished and the staff moved by summer of 1991," said John M. Schilling, GCSAA's executive director. Schilling added that the building could be ready for occupancy by spring of 1991, "if the Kansas weather cooperates."

Planned for 35,000 square feet, the new building will nearly triple the space available for GCSAA's 42-member professional staff and still leave room for projected growth. In addition to the four-story headquarters building, the new complex will feature an attached 70-seat classroom and meeting facility. The entire design, which is being completed by the Lawrence architectural firm of Peters, Kubota & Glenn, P.A., will "make superintendents who visit feel proud to be members of GCSAA," according to Lyon.

Since 1926, GCSAA has been the national professional association for the men and women who "keep golf green." By providing a wide range of opportunities for education and professional development for superintendents, the association has played an ongoing role in improving golf conditions both in America and abroad.

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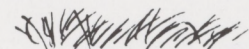
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So why can't the greens die?

A member once asked me what was wrong with the greens. I said they were sick with a bad disease. Well! I'll tell you, that just wasn't acceptable.

Why isn't it acceptable? Grass plants are living things that are subject to as many maladies as human beings. We had several members pass away because of heart attacks, one had a quadruple bypass and many have had the flu. Almost everyone goes on vacation to give their body rest and relaxation. All of the above are fully accepted by our society as things that happen to people.

So, why can't greens die of stress and disease without all the ballyhoo. I wonder how many doctors would guarantee that all the babies they deliver will be happy and healthy for the next 25 years. Would a lawyer guarantee he will never lose a case? But, dare you let the grass on the greens die, they're guaranteed!

We have huge amounts of research that indicate that older people should scale down their activities as they grow older. There are many greens that would qualify for senior citizen status that are asked to run a marathon everyday! We all know of golf courses that are playing 120,000 rounds of golf on very old compacted greens. Superintendents are constantly beat upon as to WHY these old greens are not holding up under this tremendous stress. A better question would be: "Why is

there any grass on these greens at all?"

WHERE DOES THE GOLFING PUBLIC OBTAIN THEIR UNREALISTIC EXPECTATIONS?

One major contributor is the weekly televised golf tournament showing a different course, week after week, at its peak.

Current expectations must be tempered with reality. Grass plants are not going to take unlimited abuse. Playing conditions are directly proportional to the limitations of growing conditions and budgets.

Comparisons between courses in different climates, and even within the same city, are generally unfair. We will always lose grass when the plants' stress limitations are exceeded.

This is a great industry. It presents many marvelous opportunities. But, there are some expectations on the part of the golfing public that simply cannot be met with the turfgrasses we have to manage. Current expectations must be lowered to a more realistic level.

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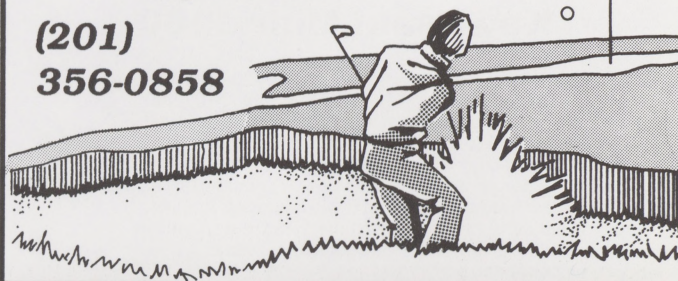
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All you need to know about the landscape in one easy lesson?

In past articles, I have written to you about plants and their well being and that was fine. But it recently hit me, like "one of Ed Walsh's golf balls from the first tee," I was putting the golfer before the cart.

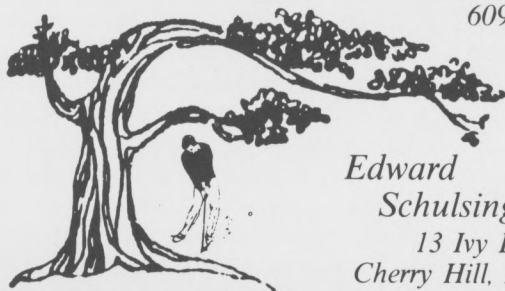
Understanding the health and well-being of plants in the landscape is fine and definitely needed. But we must first try to understand, as much as possible, the landscape itself. As a whole, we must ask questions every time we come across a landscape structure; and by asking some simple questions, we can come up with some pretty interesting answers. Some questions might be: Why is this structure (plant) put into this landscape? Will this structure outgrow its situation in the landscape? Will this structure deteriorate with age and is this deterioration rate acceptable financially and aesthetically? What about long-term maintenance in the landscape? Will the landscape improve with age? Are these plants going to survive the exposure in which they are planted? What this all boils down to is, are your reasons valid enough for using these structures in the landscape?

I was taught that when working with a natural landscape (which is the most common of landscapes), we try to recreate nature; and this is a contradiction because "man" cannot recreate nature. But the way a natural landscape should appear is as though everything fell into place by accident, rather than on pur-

pose. In nature, plants don't grow in straight lines; so when we plant, we try to avoid such things whenever possible. In a natural setting, trees are not all the same size; so when we plant, we might want to alternate the size of plant material. Nature has some very strict rules to follow, but sometimes we can bend these rules if we can see far enough in the future. Nature is perfect—so by observing nature in undisturbed areas in the landscape, I can always learn so much—it never really ceases to amaze me.

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SUPERINTENDENT PROFILE

KENNETH B. THOMPSON

I had the distinct impression of being on a challenging, well manicured golf course, perhaps somewhere in the Carolinas, with the pines, the sand, the heat and humidity lending themselves to the image. Yet, I was only 30 miles south of Atlantic City at Stone Harbor Golf Club, touring and discussing the course with Superintendent Ken Thompson.

Originally from Seattle, Ken moved around quite a bit before coming to New Jersey, his father being a forester and paper mill manager who was transferred through 14 states. Ken first got involved in turf management in 1979 while on the grounds crew at the Country Club of Paducah in Kentucky, and upon starting the Penn State two-year turf program in 1979, he began working at Toftrees Resort in State College, Pennsylvania. In 1980, he went to Merion Golf Club under Richard Valentine, helping to prepare the East course for the 1981 U.S. Open, and later being involved in the renovation of the West course in the capacity of Assistant. In 1981, Ken finished his studies at Penn State, and by 1982 had moved on to Sands Country Club in Somers Point, NJ, as Superintendent. While there, he involved himself in course and renovation projects.

Construction of the new Stone Harbor Golf Club began in July 1987 on the site previously occupied by a public golf course of the same name. When Ken arrived as Superintendent in March 1988, only four greens had been seeded and the fairways had a 25% cover, on average. By June of that year, he had the course ready for play, albeit with tender, immature turf. Consequently, all golf car traffic remains restricted to the cart paths, and two rangers are on constant patrol. Ken pointed out that considerable "construction problem solving" remains to be done, which includes drainage work and revamping the irrigation system. He also must deal with the designer's high tees, trademark bunkers, and undulating fairways and roughs, calling

for a crew of nearly 26 people to take care of it all. The sand greens call for light, weekly topdressing, as well as rather frequent feedings at the rate of about one quarter pound per thousand.

Ken said that he's cut down on his hours this season—only about 70 per week compared with nearly 80 last season. He told me he'll be speaking about his experiences at Stone Harbor at the GCSAA Conference in February 1990 in Orlando, discussing the correct and not so correct ways to go about building and growing in a golf course. Judging by what he's accomplished at Stone Harbor, I'm sure his talk will be of interest to many.

Apparently Ken does manage to find some spare time, limited though it might be, helping wife Kathy take care of their new baby, Stephanie, in the 130-year old house they're restoring. As Kathy works nights as a medical technologist, Ken gets to stay up until midnight with the baby, then he's going again at 5 a.m. to take care of the course. I hope he's started to prepare his talk in Orlando by now, or he might not be able to squeeze it in. Beautiful course, Ken, but how did you train those 'skeeters to make a meal of me and not bother you?

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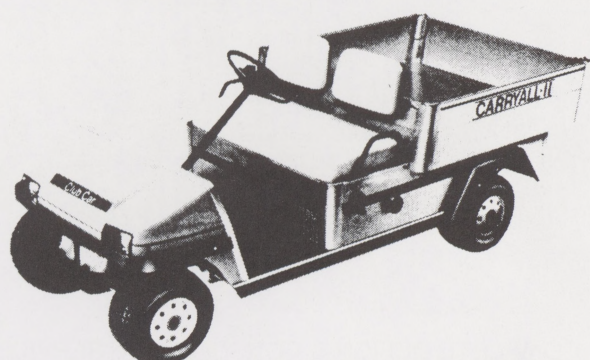
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IPM recommendations

GYPSY MOTHS

Gypsy moths laid their eggs this past July. While removal of egg masses is never a bad idea, there are several reasons why you may want to wait until this Winter, according to a report from the Rutgers Cooperative Extension.

- Egg masses are easier to spot when leaves are off the trees;
- Winter mortality will aid in control;
- Egg mass removal can function as a survey to assess next year's control needs;
- More free time in which to do a more thorough job.

Remember to soak egg masses in alcohol when you remove them to ensure that the eggs are killed. If they are left on the ground, they will be sheltered by leaves or snow and could survive.

SPRUCE GALL ADELGIDS

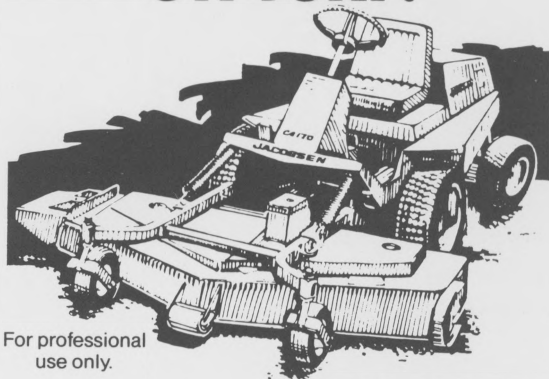
Many types of galls have been observed on trees and shrubs this year. Most of these are harmless, but a few can seriously affect a plant's health or appearance. Galls can be caused by insects, mites, nematodes, or diseases. Common galls caused by adelgids are the Cooley spruce gall adelgid and the Eastern spruce gall adelgid. These two closely related adelgids

produce the familiar pineapple-shaped galls on Colorado spruce and Norway spruce respectively. These galls are formed in the spring when emerging nymphs enter the base of swelling buds to feed. The developing nymphs are inside the galls from this point until the gall dries and opens, during which time the insect is protected from all harmful agents such as predators or pesticides. The only effective control during this period is hand removal. The most effective control times for pesticides are in the Spring (dormant oil), when overwintering females emerge to lay eggs which will hatch into this season's gall makers, in mid-Summer (Cooley) and late Summer (Eastern) when the galls open and the nymphs emerge (registered pesticide), or in the Fall, after the next generation of nymphs has settled to overwinter (dormant oil). While these pests do not kill a tree, they can greatly reduce its aesthetic value or render it unsalable as a Christmas tree.

The Cooley spruce gall adelgid has moved to its alternate host of Douglas fir by mid-Summer. While galls are not formed on this plant, feeding by the nymphs, which are black and covered by a white wooly material, causes needles to bend and become discolored. Trees will outgrow small amounts of feeding damage.

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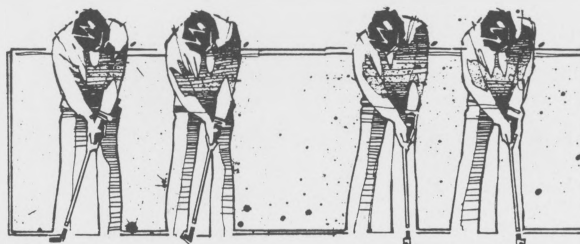
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- Trees are a cost effective means of reducing atmospheric CO₂. Improving auto emissions has been estimated to cost 10 cents per pound of CO₂, while tree planting would cost one cent per pound of CO₂;
- Trees not only help remove CO₂, air pollutants and dust from our atmosphere, they provide economic, climatic and aesthetic benefits, as well.

NATIONAL TREE DESIGNATION SOUGHT

Harry J. Banker, chairman of the ISA National Tree Committee, is leading an effort to designate a national tree. Submissions can be sent to Banker at ISA National Tree Committee, P.O. Box 333, West Orange, NJ 07052.

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SEARCH HEATS UP FOR LONG-TERM SOLUTION TO CONTROLLING DISEASE

The Oregon seed industry has won a reprieve from frightening legislation to ban field-burning, and researchers have recharged efforts to find long-term answers to the issue.

"It's status quo for 1989," said Dr. William C. Young, Extension agronomist at Oregon State University.

The Oregon House voted 34-26 against a bill that would reduce the number of seed-producing acreage that could be burned. Field-burning is the basic means the state's 800 seed growers use to purge their fields of weeds and disease and prepare the land for the next crop.

The case is crucial to the nation's golf courses because Oregon's 70 seed companies provide all U.S.-produced ryegrass, bentgrass, Chewings and creeping red fescues seed, half the U.S.-grown tall fescue seed, and about one-fourth its bluegrass seed.

Growers have burned their fields for decades, and in 1971 the legislature enacted a bill that would phase out the burning. But the lawmakers in 1979 stopped the phase out at 250,000 acres. A renewed move to ban the burning altogether was galvanized last year when one farmer was burning a field and the wind changed

direction, blowing smoke onto a major highway and causing a seven-death 37-car pileup.

Reprinted in part with permission from the Volume 1, Number 6, August 1989 issue of "Golf Course News."

NEW BROCHURE ON MASTER PLANNING OFFERED

"Master Planning: The Vital First Steps in Golf Course Construction," which has been developed for those planning to remodel a golf course as well as those planning a new one, is now available from the American Society of Golf Course Architects.

This new brochure contains information on tees, fairways, bunkers, ponds, irrigation systems, greens, and landscape treatments.

It also includes guidelines on how to budget a golf course project, as well as the services included in a master plan. For those interested in renovation, the brochure demonstrates how various parts of the plan can be phased in over a period of years as funds become available.

To obtain a free copy of this master planning brochure, write the American Society of Golf Course Architects, 221 N. LaSalle St., Chicago, IL 60601.

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There is nothing trivial about the Open

That may be the case, but someone somewhere has been compiling trivia on the U.S. Open, and "The Greenerside" can't hold back on this hot news. So here it is:

If you're over 29.7 years of age, you have missed the average age of the 88 champions who won the Open. But don't panic! The oldest U.S. Open winner was Raymond Floyd who achieved fame at the tender age of 43 years, 9 months, and 11 days. If you haven't reached that average age don't despair. Johnny McDermott won the first of his two consecutive Open victories when he was 19 years, 10 months, and 14 days. Each of these men was clean shaven at the time. More to follow on this point.

Honors for the lowest U.S. Open 18-hole score is shared by Johnny Miller, Tom Weiskopf, and Jack Nicklaus (at Baltusrol). Jack Nicklaus also holds the lowest score for

a 72-hole with a 272. All of these men were clean shaven at the time. More to follow on this point.

Our neighbor to the north, New York, must have something good for golf in its water. More Open Champions come from New York than anyplace else: Walter Hagen (Rochester), Jerome Travers (New York City), Craig Wood (Lake Placid), and Ed Furgol (New York Mills). This special water must somehow be connected to the two cities that have produced three champions each, St. Andrews, Scotland and San Diego, California. No wonder there is so much concern over groundwater!

Statistics prove (nothing) but bear this one in mind: Only two of the 88 winners sported a mustache, Scott Simpson and Lloyd Mangrum. If you want to win the U.S. Open, you've got to be prepared to shave it off, shave it all off, baby.

A. VELVA

State ranked sixth in environment care

New Jersey ranked sixth among the 50 states in forest management, solid waste recycling, drinking water protection, food safety and growth management, says a report released by a national group as reported in a recent issue of the "Asbury Park Press."

Although the Garden State's program for solid

waste recycling, drinking water protection, and growth management ranked high, its forest management and food safety programs left something to be desired, according to the "State of the States" report.

"New Jersey tied with Iowa for sixth place overall," according to the report. "California, Oregon, Minnesota, Massachusetts, and Wisconsin topped the list, says the report by Renew America, a Washington-based group that ranks state and local programs to protect the environment.

"New Jersey officials said they hadn't seen the report, but questioned its conclusions on food safety and forest management.

"We have not seen any data that would suggest . . . that food safety is low here," said Carol Shipp, a spokeswoman for the state Department of Agriculture.

"A state Department of Environmental Protection forester said the state does much to protect forests.

"The Renew America report is the third and last in a series of reports examining environmental protection efforts by the states. Renew America is a non-profit, educational group 'working towards a sustainable future by promoting a safe and healthy environment,' the report says.

"In the 1988 report, New Jersey tied with California for third place overall behind Massachusetts and Wisconsin, which tied for first place. The report examined states' programs on surface water protection, reducing pesticide contamination, land-use planning, eliminating indoor pollution, highway safety and energy pollution control. New Jersey's indoor pollution program was ranked the best.

"The 1987 State of the States report ranked New Jersey third overall behind Wisconsin and California in the areas of air pollution reduction, soil conservation, solid waste and recycling, hazardous waste management, ground water protection and renewable energy and conservation."



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