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THE GREENERSIDE

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Official Publication of the
Golf Course Superintendents Association of New Jersey

THE GREENERSIDE

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EDITORIALS

"...AND THANKS FOR YOUR SUPPORT"

Twice in the past 6 weeks I have talked on the telephone with Bruce Clarke in his office at 10:00 pm on Friday evening. Among the conclusions we have reached is that maintaining grass in boiling water is unnatural and can be chancy (good scrabble word).

Anyway what I'm attempting here is to say "Thank You" to all those at Rutgers who lend the benefit of their expertise and experience to our members continually. They will come into the field if their schedule permits; they look at literally truckloads of samples without complaint; they give rapid turnaround time and follow-up to see if the problem was corrected; they will refer you if they cannot provide assistance; and they work long hours themselves both promoting the green industry in New Jersey and tending to their research and teaching loads as well as extension. Additionally our county agents are virtual storehouses of information on just about any subject.

The $350,000,000 Jobs, Education and Competitiveness Bond Issue (flyer enclosed with this newsletter) will provide $27,000,000 for the redevelopment of the plant science complex at Cook College. This program is essential to the implementation of the Cook College New Jersey Agricultural Experiment Station Turfgrass master plan. It will also provide money for additional county extension employees who could provide local disease diagnosis and other agronomic services as well as staffing the non-credit courses (20 week winter turf) the extension service offers. Support for this bond issue will enable Cook to regain its preeminence in the fields of agricultural and environmental sciences. Successful state university research programs are matched at between 10 & 15 to 1 by their state legislatures. The New Jersey legislature in the past 20 years has matched Rutgers research funds at about 3 to 1 so this is an opportunity to improve that ratio.

A vote for this bond issue on November 8 is a vote for your future and an appropriate way to return the support we have received from the New Jersey Agricultural Experiment Station. Vote yes on November 8 and encourage others to do so.

G.B.F.

"LATE SUMMER WRAP-UP 1988 STYLE"

The September/October Greenerside covers several topics which became critical during these past summer months.

Let's start first with "Alienation of Affection." This occurs almost immediately. As any golf course "widow" can tell you, superintendents cannot be counted upon to be at any family function at this time of year. You can also forget about planning a family vacation. We are fortunate to have among our readers a woman who will give us the much familiar lament of the spouse of a golf course superintendent. Please share this article with your spouse.

For many of you, this summer has produced a wide variety of patch diseases. Doctors Peter Landschoot and Bruce B. Clarke have written an article for this issue which should help us further understand these poorly understood turf grass diseases. Research never comes without cost. Ed Walsh and Gerald Fountain explain why the GCSANJ should financially support research on Patch diseases at Rutgers University.

"Attack of the killer Nematodes" is not the latest cult movie, but a real problem in turf management. Jack K. Springer, an extension specialist in plant pathology has provided for us an explanation of the nematode population explosion experienced on many New Jersey golf courses this summer.

The summer ends and fall begins and election time arrives. This November take time to vote. One important state issue on the ballot is the 350 Million dollar Jobs, Education and Competitiveness Bond Issue. Please read the inserted fact sheet prepared by Cook College that explains the impact of this funding. This will help you make a better education ballot choice this November. If you are not registered to vote, please remember that in this country you still can! See you at the polls!

I.F.G.

President's Message

I know I mentioned this topic before so this message is going to sound repetitious. Since the beginning of the year you have heard me discuss at meetings or through this newsletter and/or mailings, the patch disease research program. We asked for your support. We tried to provide you with enough information to make your job easier. We even went as far as to provide receipts. I think your Board of Directors has done as much as they possibly can. Now it is your turn to show financial support of the research program.

To date (8/17/88) we have received checks from 10 member clubs. It is disappointing to have to say that the majority of our support has come from allied golf/turf associations. I must ask; "Why haven't our members rallied behind this program"? We have certainly experienced a difficult year. A year where all diseases and particularly the patch diseases have been prominent on our courses. When we look at recommendations for patch disease control, isn't $500 a small price to pay for information that may help reduce these exorbitant costs.

Your Board of Directors has taken some bold steps in the last two years. The development of the club survey, the club relations committee, improvements in education, and support of patch disease research are all positive steps in our progress. We, as a Board, can only introduce new ideas. To make them work you, the members, must show support. Let me hope that this message will hit closer to home than any of my previous communiques. Let me hope that this message will awaken the sleeping giant. We cannot do it without you.■

ED WALSH, CGCS, PRESIDENT

Willet Wilt says:

Believe It Or Not

Some things are so absurd that it is hard to believe they actually happen, but some of the following incidents prove once again that truth is stranger than fiction.

A Golf Course Superintendent looked out one heavily dewed morning to see a crew member hanging on to one end of a one inch hose being pulled by another crew member in a Cushman. Would you believe he was "dew skiing" down the fairway?

Then there was a Superintendent who saw a jeep riding continuously around a tee with a rotary tied behind it. When asked why, the worker replied that he was "tired of walking around the tee behind the rotary mower."

A greens crew member was told to make sure the hole he dug around the fairway sprinkler was level with the rest of the fairway when he was done fitting the sprinkler. This he did—only he dug another hole in the fairway to get the dirt to level the first hole.

On a municipal golf course, the crew was told that the Golf Course Superintendent was to play golf with the Mayor and the Parks Director, so he wanted action —he wanted to see only butt ends and elbows. What the Mayor, the Parks Director, and the Superintendent got to see was the entire crew shooting them moons as they edged the traps.

On the same municipal golf course, the town Road Dept. was told by the Golf Course Superintendent to install the snow fence in the rough. The Supt. returned later to find the Road Dept. crew on their hands and knees feeling the ground between the fairway and the rough. When asked by the Golf Course Superintendent what they were doing, they said they were "feeling the grass in order to figure out the rough from the smooth!"

If you have any more anecdotes for a future "Believe It or Not" column, please tell them to Willet Wilt, a.k.a. Ken Kubik.■

GCSANJ NEWS

MET AREA TEAM CHAMPIONSHIP

The following members will be the GCSANJ Representatives at the MET Area Team Championship which will be played at Middle Bay Country Club, Oceanside, New York on October 5, 1988: **Bob Prickett**—148, **Tom Grimac**—152, **Shaun Barry**— 152, **Terry Stanley**—154, **Forrest Arthur**—157, **Ed Walsh**—158. The alternates are: **Matt Ceplo**—159, **John Waniak**—159, **Harry Harsin**—161.

Team members were determined by averaging the two lowest scores entered at our 1988 monthly meetings. We wish our team the very best at Middle Bay.■

RSVP

The power and phone lines are down here in West Trenton as a result of a tornado last evening. My inability to make phone calls reminds me how quickly and inconveniently the weather can rearrange our schedules and lives. So it is with managing turf. The bottom fell out here on Saturday morning July 30. Some of you may still have your bottoms intact but most everyone had some sort of trouble related to recent unrelenting weather. Long range weather forecasting predicts progressively hotter summers and milder winters caused by depletion of the earth's protective ozone layer known as the "greenhouse effect". This is only going to provide more aggravation for our spleens.

To minimize this we need to direct our resources toward hardier plants, improved cultural practices and optimum pesticide usage. The Summer Patch Research Program at Rutgers addresses the last two areas directly and provides the vehicle by which the clubs themselves can become directly involved in improved management practices. The Summer Patch Fund raising effort is currently below our anticipated level of participation. It is expected that many clubs will be interested in this program after the summer. To those individuals and clubs who have already contributed "Thank You".

Understandably it is a hard time of year to shake money out of your budget for a research contribution but it is also the perfect time to illustrate to your committee how a contribution now will be a good investment for the future.

If you have not yet approached your organization for a contribution consider doing so now. If you feel your club will contribute some time this year please take a moment to send in the pledge form you recently received in the mail which will help us to project total contributions for the year. Also remember to include this program in your budget proposal for next year and send in your 1989 pledge form before our annual meeting in November. If you have some objection to this program and have no intention of supporting the fund raising effort it would be helpful to know why.

Thank you for your cooperation and I will look forward to hearing from each of you in the near future.■

Gerald B. Fountain

GCSAA NEWS

The GCSAA will hold its 60th International Golf Course Conference and Trade Show the week of February 6–13, 1989, at the Anaheim Convention Center, Anaheim, California.

"This will assuredly be the largest show in the history of the association," said John A. Segui, CGCS, president of GCSAA.■

Management Failures or How to Develop Unlimited Incapabilities

by Gary Grigg, CGCS,
Cedar Creek Properties, Education Chairman, Heart of America GCSA

1. If a worker makes a mistake, chew him out real good, preferably in front of others.

2. Never accept responsibility for a decision if you can possibly avoid it.

3. Develop an ability to pass the buck.

4. Keep your nose to the grindstone; don't expose yourself to new ideas.

5. If a superior gives you advice, endear yourself to him forever by quickly letting him know you really don't need advice.

6. Keep your finger on every little detail of your job—both past and present—that way, you'll never have time to look ahead to future problems.

7. Never consult with others over problems.

8. Never teach a younger employee your job.

9. Never check up on your health, or if you do, pay no attention to your doctor's advice.

10. Be so impatient for advancement that you fail to learn your present job.

11. Be sparing of praise for a job well done.

12. Be sure to get involved in gripe sessions with your subordinates.

13. Always cover up your errors; it teaches your employees to do the same.

14. Get involved in company politics; if there aren't any, start some.

15. Develop a good management image to your employees. Always talk, but never listen.■

Credit: Three Rivers Green—June-July 1988

Director's Corner

GCSAA

It's hard to imagine that the time has arrived to start planning for GCSAA's 1989 Conference and Show, but indeed it is time, especially for those looking to play in the golf championship held in conjunction with the conference. This year's tournament, to be held in Palm Springs, promises to be well attended. So if you plan to play, be sure to register *immediately*! Conference attendance itself does not require the same immediacy, however, good planning will insure a successful conference experience.

GCSAA's Board of Directors and Senior Staff recently completed a very successful Long Range Planning Meeting where goals and objectives for the next several years were established on a preliminary basis. Such a planning process requires those involved to thoroughly review previous planning, current status and short term goals all with the objective of developing a specific long range plan. Such planning provides those charged with the administration of the Association direction as well as a means by which to measure success. Hopefully, such planning becomes a guide for continued growth & development.

Keep an eye out for flyers announcing regional seminars to be held within the Northeast during the next several months. These seminars provide an excellent opportunity for superintendents, assistants, as well as key staff members to stay abreast of current topics within our profession.

Thanks.■

Steve Cadenelli

Patch Disease Research at Rutgers

by Drs. Peter Landschoot and Bruce B. Clarke

Patch diseases caused by root and crown-infecting fungi are among the most controversial and least understood of all turfgrass diseases. After more than 20 years of intensive research by several turfgrass pathologists we are only beginning to understand the causes of these complex disorders. Patch diseases are also among the most difficult diseases to diagnose and control, thus, increasing the potential for severe damage on golf course greens and fairways.

The Fusarium Blight Syndrome

Following several years of research, Dr. Richard Smiley (formerly of Cornell University) and Melissa Craven-Fowler implicated two new disorders which had previously been grouped into the category known as the "Fusarium blight syndrome." This was an important discovery since both diseases, necrotic ringspot and summer patch, occur under different environmental conditions and often do not respond to the same chemical and cultural control measures.

Necrotic ringspot is primarily a cool weather disease caused by the fungus *Leptosphaeria korrae.* It is particularly troublesome on Kentucky bluegrass turf, although bentgrass and fine fescue can also be affected. Summer patch, however, is a warm weather disease favored by excessive soil moisture and high humidity. This disease was originally reported to be caused by *Phialophora graminicola* but is now known to be induced by the fungus *Magnaporthe poae.* Currently, up to 50 percent of the golf courses in New Jersey have reported this disease on greens, tees or fairways.

Summer Patch

Although summer patch is primarily a disease of *Poa annua* and Kentucky bluegrass, it can occur on bentgrass in rare instances. On greens, symptoms typically appear as circular areas of dead or dying turf with bentgrass often colonizing infection centers. Symptoms, however, may also appear in horse-shoe or crescent patterns. In the early stages of development, patches vary from 2 to 3 inches in diameter. As the disease progresses, these areas increase in size from 6 to 8 inches. Patches, however, have been observed as large as two feet in diameter on severely affected turf.

Under higher-cut, symptoms are more irregular in size and shape. On golf course fairways for instance, summer patch is often confused with a number of stress related injuries. As a result, a laboratory analysis is generally recommended before control measures are enacted.

Summer patch typically occurs in July and August following extended periods of hot, humid weather. Symptoms are particularly severe in poorly drained areas following heavy rains or irrigation. While areas receiving excess traffic or wear are most likely to become infected, any situation leading to root stress will increase the susceptibility of the turf.

Current Research

Although our current knowledge of summer patch (as well as other patch diseases) is increasing each year, little is known about its overall development and control. Consequently, Rutgers University and the Golf Course Superintendents Associations of New Jersey and the region have joined forces to fund research on this disease so that more detailed cultural and chemical control measures can be developed for the future.

Research currently underway at Rutgers includes a *field survey* designed to determine the prevalence of individual patch diseases in the region. Information from this survey will help define the type of turf affected, the causal agents involved, pertinent site information (i.e.—air circulation, drainage, compaction, etc.), the influence of soil fertility, organic matter, texture, pH, nematodes, thatch development, mowing height, and other cultural practices affecting disease severity. Controlled environment and greenhouse studies will also be conducted to determine the impact of systemic fungicides, acidifying fertilizers, and stress factors on disease severity. Control measures which appear promising from such work will be evaluated in field trials next year.

Current Recommendations

For now, summer patch management should center on stress avoidance and the application of fungicides (i.e.—Banner, Bayleton, Chipco 26019, Cleary's 3336, Rubigan or Tersan 1991) in sufficient water to reach the root zone. Sprays should commence prior to hot weather and continue throughout the summer at 3 to 4 week intervals. Finally, where greens are concerned, a vigorous aerification program is recommended to relieve compaction and improve rooting.■

Marketing Kentucky Bluegrass Seed

by Jonathan Green, Western Division of Cascade Seed Intervention

There is a difference between marketing and selling that usually goes unnoticed to anyone who is not specifically trained in marketing.

It's one thing to take a commodity and put a brand on it and sell at the lowest price, and quite another to develop special products for certain uses and advertise these, plan inventory, packaging, quality standards, product information and then sell the product into known markets at a fair market value. The first case can be regarded as selling, the second as marketing.

Kentucky bluegrass seed growers and dealers are more and more becoming marketers and less and less dependent on the vagaries of commodity pricing that once characterized this seed market. At least half of the seed of Kentucky bluegrass that is grown now is of improved varieties; "elite types" as they are known.

There is still production of common Kentucky bluegrass from old fields planted to "South Dakota" Kentucky bluegrass, or some other variety not stated, but this is less of a factor as growers are learning how to market their crops.

The one drawback to this new sophistication is that the ability to market seed has helped sustain the high prices that have been prevalent for the last three years. The price trend in this dynamic seed market is not a random happening. It may not be totally logical either, but there is at least a rationale for the recent jump in price to over $170/cwt in wholesale markets for 98/85 common.

Most people agree that the total US production of Kentucky bluegrass in 1987 was at least 55 million pounds. That is about the demand in a normal year, if there were ever such a thing. Spring demand in the US in 1988 has continued brisk by most reports, and there was no extra seed around to force the markets down. Prices are already nearly as high for "new crop" 1988 seed.

There is only a little specific information available on inventories and harvests. One known fact is the increase in demand for US seed in Canadian markets. The Canadians have expanded imports of US grown seed substantially after the failure of the European Crop.

The latest report from Canada shows an increase in usage in fall 1987 from 446,984 kg. to 873,824 kg. by the end of November 1987. Their spring demand will no doubt be strong as well. This increased demand in large part reflects the relatively greater availability of high quality elite types that are accepted into Canadian markets.

Seed consumers seem to have gotten used to these high prices and the market displays a rather "inelastic" demand at this high level. This means the usage changes very little with wide swings in price. By the same token, small changes in supply can have a multiplied impact on price.

There is a further rationale for sustained high prices that goes like this. First is carryover—the seed from 1986 harvest was very scarce, maybe the least ever. Second, harvest in 1987 was difficult for some production areas because of inclement weather.

Seed production in northern Idaho and portions of eastern Washington was plagued by the worst July weather ever. This caused some total failures and otherwise mostly average production with higher than normal clean-out results.

The harvest in Madras and elsewhere in Oregon also experienced the unusual rain, resulting in some losses. But this crop generally weighed in at record per acre levels; the one exception to the lower production trend. There was in excess of 19,279 million pounds produced in Oregon on some 25,680 acres with over 11,000 acres being of certified seed.

In the past, Kentucky bluegrass seed growers have frequently had to holdover a portion of their crop. Even when prices were lower, the usage of seed in the market did not change in the same proportion as the price. So this year enough growers and dealers are willing to hold as much as 10 percent of their crop in an effort to market their production in a timely and orderly fashion.

Quality seed will be available after harvest in 1988 in good quantities, but prices may not decline until after 1989 harvest, assuming seed yields are normal. The sustained higher price is in part the result of marketing seed instead of just selling it.

The total revenue generated from sales of Kentucky bluegrass seed has been at record levels for three years in a row. Because of this, growers and suppliers are well-situated to manage their own destiny and the market price, in their own favor.■

Nematodes on Turf in New Jersey

Nematodes are unsegmented roundworms. They are somewhat higher on the evolutionary tree than Flat Worms, and they are not as highly developed as Segmented Roundworms (common earthworm).

Plant parasitic nematodes are distributed widely in most soils. They generally occur in low number but, under some circumstances, very high population levels develop in small patches. With mono-cultural practices, they can build-up to troublesome level over extensive areas. In this type situation, they can become very troublesome.

Nematodes feed by inserting their Stylet (generally a hollow spear-like structure) into the plant cells and secreting digestive enzymes into the plant. The amount of damage caused by the extraction of nutrients is considered to be minimal; but the predigestive secretion disrupts the normal physiology of the cells, including cells some distance from the ones being fed on.

Nematodes survive the winter as adults, as partially grown larva, and as eggs. Nematode populations are lowest in early spring as a result of winter kill of the active forms. The populations increase during the year and reach their highest level in late fall.

Nematode feeding injury has never been documented to actually kill a plant. The feeding activity can cause severe stress to the plant when population levels are high, and this stress, combined with stresses exerted on the plant by various cultural practices and adverse environmental conditions, frequently result in plant loss.

Visual injury to turf from nematode feeding is very common in the southern counties. Similar injury in northern counties is much less frequent. This results from the generally cooler temperatures and the generally heavier soils in the northern counties. During periods of excessively high temperatures the grass is not actively growing and producing the compounds needed to resist nematode attack. Additionally, the better the water holding capacity of the soil, the better able the plant is to counteract the stresses produced by drought conditions. Thus, grasses in the northern counties experience less stress and less and less nematode injury than those in the southern counties.

Weather conditions in New Jersey during 1988 were more typically of the weather conditions normally occurring in North Carolina. Under these conditions, northern-type turfgrasses are severely stressed. Thus, it was not surprising that nematode populations were extremely high and that nematode injury was very widespread and severe throughout the state.

Symptoms of nematode feeding injury vary, depending on the time of the year the injury occurs. Early in the season, nematode injury typically occurs as small yellow spots, about the size of Dollar Spot. The spots more closely resemble Copper Spot, but they are a more brilliant yellow color. This condition occurs normally from a heavy egg hatch once soil conditions become favorable, and multiple spots occur in an area of about 10–12 sq ft in size. However, on occasions a green may experience 2–4 of these areas, resulting in a sizeable affected area.

The most noticeable symptom of nematode feeding injury occurs in July and August. The symptoms strongly resemble drought injury and is, in fact, drought injury. Patches of grass do not grow as vigorously, and they wilt earlier and earlier each day. When the roots are examined, affected plants will be found to have very shallow root systems (rarely deeper than 1 inch). Roots deeper than 1 inch, when present at all, will be discolored and in various stages of decay.

Nematicide treatments are effective in control and result in more deeply rooted plants within 7 days of treatment. However, nematicides do not persist too long in the soil and they rarely provide more than 85% control. Thus, control of 85% of a very high nematode population will leave too many nematodes to reproduce and build-up a damaging level in a relatively short time. Further, the contact/systemic-type nematicides used today do not control nematodes in the egg stage. Nematicide treatments, when used, should be viewed as a yearly proposition, at least until the population levels are reduced to manageable levels.

Good cultural management practices will often mask the effects of nematode injury, and greens keepers have been doing an excellent job of this for many years. However, when nematode population levels become too high, the increased management practices become far more expensive than a nematicide treatment. Treatments should be applied prior to the time this occurs.

Economic Threshold Levels for all of the economically important nematodes which attack turf have been established for New Jersey. The levels have been established for turf growing under the least desirable conditions, droughty soil and drought conditions. Economic Threshold Levels are developed for each state based on the technique used to extract nematodes from the soil and from a knowledge of the soil types and typical weather patterns. States which process large numbers of samples can afford to purchase the equipment needed to extract the maximum number of nematodes from the soil, while other states use a less sophisticated extraction technique. Thus, the values provided by our Nematode Detection Service are adjusted for our particular geographic area. They are based on the "worst case" scenario and turf managers must relate our recommendation to their own situation.

When given good cultural care, grasses can tolerate very high nematode population levels, the only visible symptom being a shallow rooted condition. Thus, the key to successful management of nematodes is to determine the nematode population levels in early May. If the population suggests that they could build to damaging levels, a nematicide should be applied before June 15. In this way, plants have an opportunity to develop a deep root system, which will provide them an opportunity to survive the stresses produced by summer growing conditions.■

SPRAYER CLEANING

Sprayers need to be cleaned to prevent corrosion, to prevent cross-contamination of pesticides, and to prevent crop injury. Trace amounts of one pesticide can react with another or carry over to the next spraying, causing damage, especially with herbicides. Long exposures with even small amounts of some pesticides can damage sprayer components, including stainless steel tips and fiberglass tanks.

No cleaning method is 100% foolproof. If you want to spray crops that are very susceptible to herbicide injury, such as vegetables, fruits, or ornamentals, it is recommended that two sprayers be used—one for herbicides only and one for all other pesticides. Careful cleaning will usually remove all but insignificant amounts of insecticides and fungicides.

Always try to end the day with an empty tank; mix only what is needed for today's job. Choose the washing area carefully; avoid contamination of water supplies and injury to plants or animals. Don't make puddles that might be accessible to children, pets, farm animals, or wildlife. Always flush with clean water and drain even if you plan to apply the same material the next day. Also rinse the outside of the sprayer. The use of surfactants with pesticides, when compatible with your needs, will provide some cleaning action with the sprayer. Some pesticide combinations (especially if oil is used) may produce a putty-type paste ("buttering out") in the sprayer tank; flushing with water after each load, may prevent an accumulation. If water alone does not dissolve and remove the buildup, add Stoddard solvent, kerosene, or other low flammable solvent; allow paste to dissolve, then agitate and flush. Next, flush with detergent and finally clean with water.

Whenever you change pesticides or prior to storage, sprayers should be given a thorough cleaning with a cleaning solution. The solution used depends on the pesticide to be removed from the sprayer. Check pesticide label for cleaning instructions.

First, flush with water, then add the cleaning solution to the tank and thoroughly agitate before flushing. Always flush with clean water to remove cleaning solution. Remove nozzle tips and screens; clean them in strong detergent solution or kerosene, using a soft brush such as an old toothbrush. Do not create damage by using a wire, knife, or other hard objects that might scratch the orifice or puncture the screen.

Follow safety precautions during cleaning the same as for applications. Use a respirator, rubber gloves, or other protective gear as may be directed by label instructions.■

REPRODUCTIVE POWERS OF INSECTS

Most people have heard of Drosophilia, the pomace flies (fruit flies) that have been studied so much by geneticists. These flies develop rapidly, and under ideal conditions, may produce 25 generations a year. Each female will lay up to 100 eggs, of which about half will hatch into males and half into females. Now, suppose we started with a pair of these flies and allowed them to reproduce under ideal conditions for a year—with the original and each succeeding female laying 100 eggs before she dies, and each egg hatching and the young growing to maturity and reproducing again. The number of flies that would be produced in the twenty-fifth generation is fantastic; if the flies of this generation were packed tightly together, 1000 to a cubic inch, they would form a ball of flies 96 million miles in diameter, or a ball extending nearly from the earth to the sun! *(Borrer & DeLong)*■

Superintendent Profile

Armand H. LeSage

Getting up before dawn is nothing new for Armand H. LeSage, golf course superintendent at White Beeches Golf and Country Club, Haworth. The North Adams, Mass., native started caddying at Taconic Golf Club on the campus of Williams College, Williamstown, Mass., at the age of 12. "I had to get there early," he says, "to ensure I was first out. Then I could get out twice. We each carried two bags in those days and made a whopping $2.50 per bag."

Armand won the Francis Ouimet caddy scholarship and went on to the Turf Management Program at the Stockbridge School of Agriculture, University of Massachusetts. After graduating in 1966, he was drafted into the Army. In 1967 he was sent to Vietnam, where he served for 13 months. While there he was awarded the Soldier Medal for heroism, the Bronze Star, the Army Commendation Medal, and the Air Medal.

When Armand got back home, he resumed his golf course career as the assistant golf course superintendent at Wethersfield Country Club in Wethersfield, Connecticut. He was there until 1975 when he became the assistant at Race Brook Country Club in Orange, Connecticut. Then in 1980 Armand became the superintendent at Race Brook. As superintendent he designed and oversaw the installation of an automated irrigation system, which certainly made his nights a lot easier.

In 1985 Armand made the move out of New England to New Jersey and White Beeches. He has already completed many beautification projects, including bulkheading on several ponds. He currently serves as vice president of the Alliance for Environmental Concerns, Inc.

Armand has some strong feelings about the direction in which golf courses are moving. "I believe that we in the golf course management business try to overmanage our turf. We cut the grass shorter than it was meant to be cut. We starve the grass and expect it to achieve the hardiness to survive all kinds of adverse weather. And then wonder why the darn turf dies during stress periods."

"I firmly believe we have to address this problem from both sides; what conditions the turf will tolerate, and what conditions the members will tolerate. It may be as simple as raising the height of cut slightly and giving up a little putting green speed."

Armand's family includes daughter Margot, 11, who lives in Massachusetts, wife Mary-Justine, and daughter Amanda, 3. They all enjoy the beauty of the golf course, although no one else in the family is a golfer—yet. Armand swears he has Amanda signed up for lessons next summer!■

Mary-Justine Lanyon

Life As A Wife
(Or Why You Can Keep Summer)

Summer—most of my friends love it. To them it means a week or two at the shore, a long weekend in rural Connecticut, family picnics, leisurely Sunday afternoons at the pool.

But I'm the wife of a golf course superintendent. To me summer means endless discussions about the weather—it's too hot, too dry, too wet, too wet *and* too hot. It's the television always tuned to the Weather Channel. It's weekend after weekend of my 3-year-old daughter and me fending for ourselves (thank God for our swim club!).

I think what bothers me most is always having to make excuses. No one understands why we can't go to the picnic or get out on a Saturday evening in the summer or sneak away to the beach. Let's face it—I even have trouble understanding it sometimes. It's irritating, but it goes with the territory. After a while, people stop asking, so I don't have to make any more excuses.

On the other hand, how many husbands or fathers come home for lunch every day? How many are there at lunchtime on a Wednesday for their daughter's birthday party? Armand was quite a sight in his chef's hat at the hot dog cart!

As our daughter starts school, I anticipate that Armand will be one of the new Dads at afternoon school events (are you listening, Dad?). Since he works so close to home, he'll get all the news right away, too. There's a lot to be said for not having to wait for Dad to come home on the late train.

One thing Amanda and I really love is riding around on the golf course after dinner. She delights in spotting all the different animals—raccoons, squirrels, chipmunks, red fox. Chasing after Daddy's golf balls is another favorite pastime.

We're lucky, too, that we get to accompany Armand to the GCSAA golf tournament and convention every year. Not many youngsters have been to as many cities as Amanda already has. As she gets older, it will be an even greater experience for her. I relish the opportunity to meet other wives and talk with them. No one else truly understands or appreciates our lives. I would welcome the chance to meet more New Jersey wives, especially those in Bergen County, where I live.

We wives play an important role. We're the sounding board for ideas and complaints. We're support in the face of adverse weather conditions and not-so-understanding members. There are so many factors over which the golf course superintendent has no control—inaccurate Weather Channel forecasts, workers who don't show up or take off after lunch, vandalism, "surprise" outside events. We even fill in for our husbands on occasion. Amanda and I are old pros at locking up the bathrooms on the course and picking up the pins.

All in all it's a good life, if a little lonely sometimes. If there were only some way to make the summer shorter. . . .■

M.J.L.

★ GCSAA Membership Tops 8,000 ★

The Golf Course Superintendents Association of America's active and visible role in golf—coupled with a vigorous and effective recruitment program—is helping to pay dividends via a dramatic increase in membership. This month, GCSAA's rolls officially exceeded 8,000 for the first time in the association's 62-year history.

Timothy Robert Sever, golf course superintendent at Sugarmill Woods Country Club of Homosassa, Florida, became the 8,000th member.

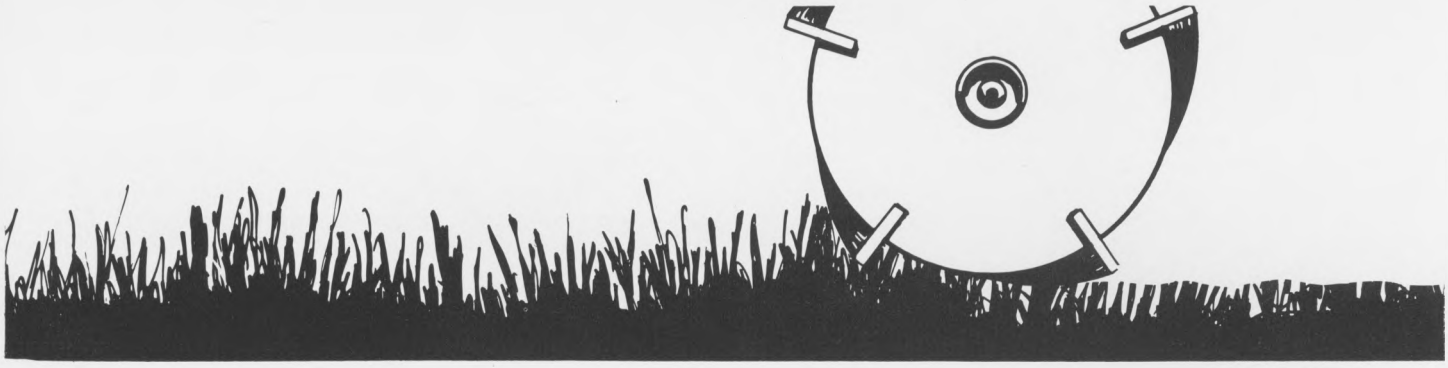
"I believe the association's high visibility within golf is one factor contributing to this growth," says John A. Segui, CGCS, president of GCSAA. "At the same time, our continued increase in membership has also allowed the association to provide more benefits and services—which in turn has steadily attracted still more members.

In 1983 GCSAA had fewer than 5,000 members.

GCSAA is headquartered in Lawrence, Kansas, adjacent to Alvamar Country Club. The association annually hosts the International Golf Course Conference and Trade Show—one of the 200 largest trade shows in the United States—in various major cities across the nation.

The organization also provides nearly 70 educational seminars and offers its members a variety of other services, including insurance programs, employment assistance and referral, an audio-visual lending library and an extensive line of exclusive merchandise. In addition, GCSAA publishes *Golf Course Management* magazine, the leading monthly publication in its professional field.■

For further information, contact Bob Still, GCSAA media relations manager, 1/800-472-7878.



Good News from the NJ Division of Fish, Game and Wildlife

In 1987, the division stocked public waters with more than 600,000 trout, while 50,000 Chinook salmon were released into the Raritan River and 965 tiger muskies were stocked in the Passaic River. The run of 595,000 American shad in the Delaware River was the largest since 1975. Also, the new Monksville Reservoir has been added as a place to fish in New Jersey, stocking smallmouth and largemouth bass, rainbow trout and alewife herring.

Hunters harvested a record number of deer during the 1987 season, taking more than 37,000 deer.

In Sussex County, wild turkeys were live-trapped and relocated to the Naval Weapons Station Earle in Monmouth County. Turkeys were also sent to Ontario, Canada, to restore populations. Wild quail from Illinois were released in Sussex County to re-establish a quail population.

In the spring, personnel tagged 24 black bears. All the bears appeared in good condition with weights ranging from 65 to 520 pounds.

Biologists constructed a new eagle's nest to replace a natural nest that was in danger of collapsing. Eagles used the new nest to raise two eaglets and, overall, 12 eaglets from Manitoba were successfully hatched (reared and released) in 1987 as part of a program to restore New Jersey's eagle population.

The Marine Enforcement Unit received the Atlantic Offshore Fisherman's Association annual award for service to the fishing industry.

Conservation Officers participated in a week-long enforcement effort with other agencies to stem illegal trawling activities in Raritan Bay. The operation resulted in 30 apprehensions.

The Pequest Trout Hatchery and Natural Resource Education Center hosted fishing clinics in cooperation with several fishing organizations, conducted programs on topics such as bird feeding and salmon fishing and completed the Natural Resource Trail.

Moss Helps Acid Rain do Damage to Trees

The Davey Technical Journal—May/June 1988

Those spongy carpets of moss that often cover the forest floor are harming forests by serving as the medium through which acid rain contaminates trees, concludes a researcher at the National Center for Atmospheric Research.

Different mosses inhibit tree growth in different ways. Some mats of moss soak up large amounts of water, saturating the underground soils and cutting off the oxygen to tree roots. Other

mosses acidify the rainwater that passes through them, making toxic aluminum in the soil soluble and available to the tree roots.

Lee Klinger, a researcher at the Center in Boulder, Colorado, has noticed these conditions in every forest region he has observed from southeastern Alaska to the Adirondack Mountains in New York. In every case, very fine feeder tree roots were dead underneath blankets of moss. The moss is also common to destruction of mycorrihiza, a symbiotic relationship between fungi and roots that fixes nitrogen for use by trees.

Acid rain that occurs naturally increases moss growth, he notes, but acid rain caused by industrial pollution tends to carry nitrates that further stimulate that growth. Similarly, while tree death caused by moss in a natural process, Klinger says it is accelerated in some areas because of pollution.

Announcement

Wilfred MacDonald, Inc. is pleased to announce the appointment of Michael S. Moore to the position of Parts and Systems Manager effective September 1, 1988. The addition of Mr. Moore enhances MacDonald's ongoing commitment to better SERVICE.

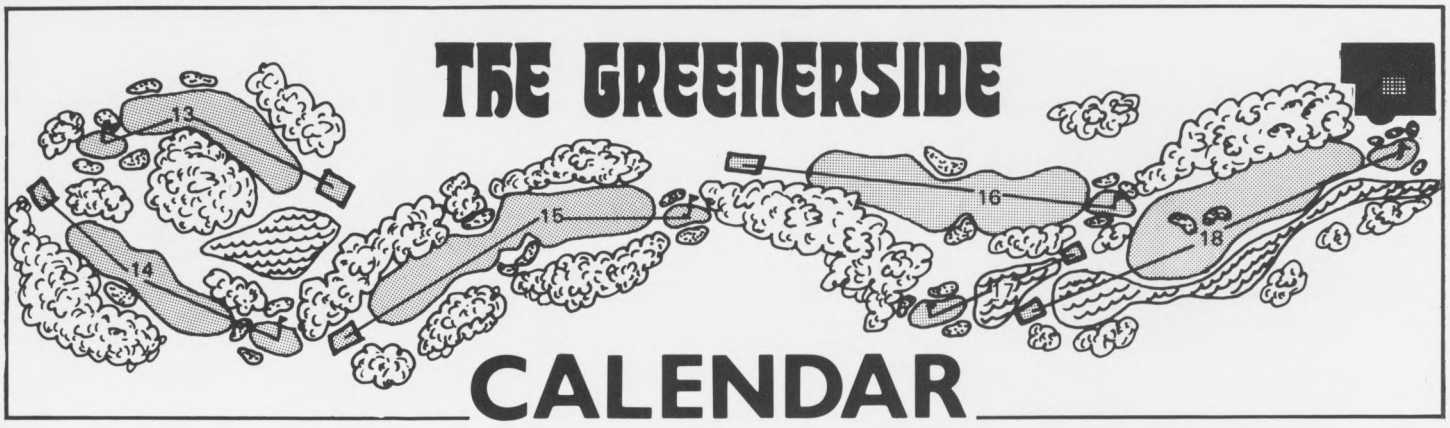
Mike brings a wide variety of skills to his new position having been previously employed (12 years) at the Mountain Ridge Country Club as their Maintenance and Communications Engineer and the Equipment Manager.

Worker Protection Standards for Agricultural Pesticides

The proposed rules covering worker protection standards for pesticides published by the EPA are detailed in a 51 page notice appearing in the July 8th Federal Register. Some good news: golf courses along with certain other nonagricultural use areas are specifically excluded from the proposed rules. These rules were developed in a series of public meetings dating back to 1985. With or without federal rules, pesticide safety and worker protection are important issues for every golf course superintendent. Winter safety training will pay off year round.

Our Precious Soil

Most of us don't appreciate just how much soil is lost in these United States every year. Experts estimate that soil erosion destroys the equivalent of three million acres of prime farmland yearly. That's enough land to build a new Rhode Island once every four years. I imagine that larger states take longer. Nature works very slowly in building new soil taking some 500 to 700 years to go from bedrock to topsoil. Quality turf, the kind you see in golf courses helps to reduce the overall soil erosion losses. So if you don't want to rebuild Rhode Island, work hard to prevent soil losses!



Golf Course Superintendents Association of New Jersey

EVENT	DATE	LOCATION	HOST
The Autumn Classic	*September 26–27*	Quechee Golf Club Quechee, VT	Mark Fuller Superintendent
24th Annual Turfgrass Equipment, Supplies Field Day	*October 4*	Rutgers Stadium and Golf Course Piscataway, NJ	Dr. Henry Indyk (201) 932-9453
The MET Area Superintendent Assoc. Team Championship	*October 5*	Middle Bay Country Club Oceanside, Long Island	John Carlone Superintendent
NJSGA Annual Meeting Golf and Dinner	*October 11*	North Jersey Golf Course Wayne, NJ	John Wantz (201) 942-2594
Golf Course Design & Principles	*October 24–25*	Bass River, MA	GCSAA 1-800-472-7878
Plant Nutrition and Fertilizers	*November 10–11*	Natick, MA	GCSAA 1-800-472-7878
GCSANJ Annual Meeting	*November 15*	Hollywood Golf Club Deal, NJ	Bruce Cadenelli 201-531-3609
Alliance for Environmental Concerns Annual Meeting	*November 22*	Forsgate CC Jamesburg, NJ	Ilona Gray 201-595-7172
New Jersey Turfgrass Expo	*December 5–8*	Resorts International Atlantic City, NJ	Henry Indyk 201-932-9453
GCSAA International Golf Course Conference and Show	*February 6–13* *1989*	Anaheim, CA	GCSAA 1-800-472-7878

1989—March 9 & 10, GCSANJ & GCSAA Seminar Insects on Turf, Tree and Shrubs, GCSAA 1-800-472-7878

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