

Sponsors and administrators of the Troll-Dickinson Scholarship Fund - Awarded yearly to deserving Turf Management Students.

December 1997

Charles River C.C. 'polishes the jewel' in restoring its Donald Ross golf course

If you're a superintendent at a Donald Ross-designed golf course (and there are 35 of them in Massachusetts alone), don't look now, a restoration project may be in your future.

Putting the "original" look back into the famed golf architect's tree-lined, bunker-dotted creations has become an eventual way of life for the superintendent trusted with keeping Ross' jewels, well, gem-like. Once they've lost their sparkle it's only a matter of time before club members decide to blow the dust off their course's original blueprints.

At the Charles River Country Club where Scott Reynolds applies his expertise to a Donald Ross layout that recently turned the corner of its 75th birthday, its members doubled up in the facelift department. Not only did they stamp their approval on restoring the golf course to 1921 specs, they tackled the job of renovating the clubhouse.

In this issue . . .

								Po	ige
Calendar of Events				÷			è		2
The Puzzle!	œ			*:	•	*2		•	2
The Super Speaks O	ut		٠	*	*			*	3
Turfgrass Nematode	S	tı	ıd	1,	Po	ırt	1	1	4
Remember When?		٠		*	*0		٠	٠	5
Friend of the Associa	ıti	01	ı I	re	ofi	le	٠		5
GCSAA News				•	•				6
Divot Drift	÷	÷	٠						6
Superintendent Profi									

Obviously, the two-pronged project put a little variety into their golfing lives. "They had to put up with pro shop and clubhouse trailers for a long time," Scott disclosed. "Yes, it was sort of an inconvenience to our members. However, they were determined that the overall operation wasn't going to be a quick-fix thing. They wanted to do it right and go the whole route."

Much of the restoration work centered on Charles River's 70 bunkers. Oddly enough, the bunkers had undergone repair work eight years before. But that in-house, fast-finished project was nothing more than a band-aid applied to a hemorrhaging wound. The bleeding never stopped until the club's long-range committee jumped in with the cure-all remedy.

"The committee started working on this a couple of years ago," Reynolds told. "There were inside meetings, meetings with the Donald Ross Society, and a lot of heated debates before plans were put into place. A lot of thought went into it. That group was strongly focused.

The first step was to hire Ronald Pritchard, a respected architect who has had much experience working on Donald Ross restoration projects. It was also decided to hire the Michael Drake Construction Company for the bunker work. Then it was into studying aerial photos (circa 1938) and gathering information from a succession of superintendents and veteran club members.

That left the first ground thrust schedule to be drafted, and work began in

September 1996, carrying through to the end of June 1997 when the bulk of the work was completed.

There had to be some luck involved, and it surfaced in a wide-open winter of

"Quality comes with a price, and I think our members realize that."

> Scott Reynolds Charles River C.C.

1997 when there was a shortfall of snowstorms. This gave the Drake people a couple of months of bonus time. Reynolds says it was the difference in bringing 80 percent of the job home free at the projected time of completion. However, working under less than ideal conditions had its problems.

"The problem had nothing to do with the Drake input," Reynolds emphasized. "In fact, they were artists in their own right. They were painstaking in their approach to what turned out to be fineline work. They were great. Anyway, the problem had to do with a tractor."

The glitch occurred when 'somehow' the tractor buried itself in a fairway while the Charles River crew staked out new routes (away from the fairways) for cart paths. In the end, it took Scott and his staff two days to straighten out that mess

continued on page 2



PRESIDENT Robert DiRico, CGCS 326 Fuller Street, West Newton, MA 02165 617-527-6968 Fax 617-527-0069 Brae Burn Country Club

VICE PRESIDENT Kevin F. Osgood 14 Inman Lane, Foxborough, MA 02035 617-630-1950 Fax 617-969-8756 Newton Commonwealth Golf Course

SECRETARY
James Fitzroy, CGCS
357 W. Squantum Street, North Quincy, MA 02171
617-328-1776 Fax 617-328-9479
Presidents Golf Course

TREASURER Robert Ruszala 69 Gelinas Drive, Chicopee, MA 01020 413-256-8654 Fax 413-592-0120 Hickory Ridge Country Club

TRUSTEE Michael Nagle, CGCS 51 Lincoln Avenue, Holden, MA 01520 508-853-6574 Fax 508-856-7170 Worcester Country Club

TRUSTEE
David Comee
65 Marquette Street, Gardner, MA 01440
978-297-1223 Fax 978-297-0911
The Winchendon School Country Club

TRUSTEE Arthur Silva, CGCS 35 Pennacook Road, Tewksbury, MA 01701 781-484-5360 Fax 781-484-8321 Belmont Country Club

FINANCE CHAIRMAN James B. Conant, CGCS 639 South Street, Pittsfield, MA 01202 413-447-8506 Fax 413-447-8502 Country Club of Pittsfield

GOLF CHAIRMAN Michael J. Hermanson 100 Eaton Street, Gardner, MA 01440 978-632-2713 Fax 978-632-2029 Gardner Municipal Golf Course

EDUCATION CHAIRMAN Michael V. Iacono, CGCS 42 Newton Street, Weston, MA 02193 781-899-7913 Fax 781-647-0602 Pine Brook Country Club

NEWSLETTER CHAIRMAN Wayne F. LaCroix, CGCS 97 Gould Road, Andover, MA 01810 978-475-6638 Fax 978-475-9488 Andover Country Club

PAST PRESIDENT Edward L. Brearley 189 Matfield Street, West Bridgewater, MA 02379 508-584-6568 Fax 508-583-0978 Dahn Tibbett Professional Golf Services



GCSANE Headquarters - Golf House 190 Park Road, Weston, Ma 02193 (800) 833-4451 Fax (781) 893-6137

Newsletter Editor Wayne LaCroix, CGCS
Contributing Editor Gerry Finn
Business Manager Robert Ruszala

Information contained in this publication may be used freely, in whole or in part, without special permission as long as the true context is maintained. We would appreciate a credit line.

NT P Y H V A Z L K J B S E I H G F D S A P I J N P I J F C R D X E S Z W A Q P P R D X E S Z W A Q P P R D X E S Z W A Q P P R D X E S Z W A Q P P R D X E S Z W A Q P P R D X E S Z W A Q P P R D X E S Z W A Q X E S Z W A Q P R D X E S Z W A Q P R D X E S Z W A Q P R D X E S Z W A Q P R D X E S Z W A Q P R D X E S Z W A Q P R D X E S Z W A Q P R D X E S Z W A Q P R D X E S Z W A Q P R D X E S Z W A Q X E	A L Z X C V B N M Y M N B V C X Z B S K J H G F D S A I D F G H J K L L T T E S S A H O C Q R E W Q Q U E T I E S P I Y R W M B C Z K H F E S O U N F D E E W V A Z O A Z M H Y Y G K O S H A C F L N W C T G L N I U T G F L U C T P W R P M E V E L H B O E D Z T E S O S H A C F L N W C T G L N I O E D Z T E S O S O V A B Q X U D K I U T G F L U T C T P W R P M E V E L H B O E D Z T E S O S O V S O A G A C Q	QMBCZKOORBEN-PCDEVEFRB.
	. M Z U Q N I W R S O X I Z D W O B I ' M X Y A H K P T A U V Y L F E I M Y . N O T Z Y U O Y P T N R K G R U N R . R V R Q L O N G M E A D O W G H J K	• • •

وبيسل بالربيس ويروي والجرين التنقل الربين التساريا والجنار المتران أوراجيان المتران أوراجيان المتران المراجيان المتران المتران المراجيان المتران المراجيان المتران الم

The Puzzle

Look up, down, forward, backward, and diagonally to find each of the following courses that hosted a meeting or tournament this year:

Andover
Blue Hills
Brae Burn
Cohasset
Dean Junior College
Eastward Ho
Juniper Hill
Longmeadow
Pine Brook
Tedesco
Walpole
Willowbend
Winchester

continued from page 1

and repair the damage. But such are the fortunes of restoration.

On-course restoring also had to do with expanding greens and retracing the makeup of several tees. It seems that World War II had a hand in some of the scarring of the Ross original. Because of financial cutbacks and labor shortages during the war, greens were made smaller to facilitate proper maintenance. Expanding greens was another part of the restoration picture.

Charles River members let tolerance and patience be their guides through the heavy restoration period. They played the course without relying on normal conditions, which is to say all bunkers were out of play. They even had the sense to use a special "bunkerless handicap system" to pull them through tournament play while the bunkers were under restorative assault.

"I think one of the key factors in bringing this to a successful conclusion was the great rapport between the club green committee and the membership," Reynolds noted. "They had to be in tune with each other. Also, another comforting factor was the effective working relationship between the Michael Drake Company and my staff. They were always on the same page. Everything had to fall in place and it did."

The results of the project were well-received by the Charles River membership. Many supported the financial outlay because they wanted the "best" when it came to course conditions, appearance, and Donald Ross originality. They had to

bite the financial bullet and continue to do so.

"Keeping the cost down is tough," Reynolds remarked. "With all the improvements to the golf course and around the clubhouse areas, I find that I need two more people to maintain the course and grounds. For example, before restoration it took 130 hours to maintain our bunkers. After restoration, that figure is up to 170. Quality comes with a price and I think our members realize that."

As for Scott, the project has been somewhat of a strain ("my golf game is gone," he moans) because of its enormous impact on his job responsibilities. "I couldn't go home and forget it," he said. "But, it's self-rewarding. I live on the property, so part of the course is my home. Now, if I look real long and hard, I can almost see Donald Ross creating his masterpiece. It happens to every Donald Ross course superintendent, doesn't it?"

GERRY FINN

Calendar

January |4

GCSANE Annual Meeting Woodland Golf Club

Newton, Mass. Supt. - Dave Mucciarone

February 19

GCSANE Monthly Meeting Thorny Lea Golf Club

Whitman, Mass. Supt. - Joseph L. Rybka, CGCS

March 25

GCSANE Monthly Meeting Pleasant Valley Country Club

Sutton, Mass.

Supt. - Randy Kehres, CGCS

The Super Speaks Out

This month's question: How do you handle layoffs and what are your other remedies in maintaining an effective winter staff?

Len Curtin, Lexington Golf Club: "We're a nine-hole club, a close-knit club. We're even a 100-year-old club. We have 250 members, but we don't have enough money to carry a full-time staff year-round.

"Presently, there are three of us on the payroll around the yearly clock, my assistant, mechanic, and myself. The regular crew works out to six people, from mid-March until late in season or when we run out of golfing weather.

"We do have a problem, though. Those three people who work nine months a year are very valuable in that they are returnees with much-needed experience. I can't say enough about being able to get a restart in the spring with a crew that's been here before and can get right into the job of getting the conditioning system going without a break-in period.

"But the problem is that those three people aren't guaranteed to return. Worse yet, this year we had one of them apply for unemployment compensation. It didn't set too well with some of our members, but what's the solution? I want to hire back the semi-full-timers but I can't.

"There are no permanent ways around the problem, but I do have the opportunity to use my snow removal money on the laid off people. That's a help. The funny thing is that there is plenty of work to do here in the wintertime.

"The whole arrangement really puts us in a difficult slot. Besides the six 'almost' full-timers, I also hire two more crew members at the height of the season. Turns out these also are valuable people. I try to keep in touch with them after they're laid off by seeking jobs at other places of business, and I also make sure I bring them back as soon as possible.

"Right now (mid-November) our course work consists of preparing for spring, putting on greens covers (after Thanksgiving) and the horrendous, ongoing job of leaf cleanup. The ideal situation would be a full boatload of experienced help when spring rolls around. Maybe some day?"

Eric Brox, Hickory Hill Golf Course: "I've always concentrated on getting along with my crew and making every effort to see that they enjoy the atmosphere and conditions here. I treat them as well as I can because I go by

the old saying that suggests that a happy crew is an efficient crew.

"We're an 18-hole, daily fee course, and the theme is to get as many people around the course as possible. That also means keeping the course in a condition that attracts the fee-paying players.

"I run between eight and 12 people on the staff during the summer. Then I gradually lay off crew members until we get down to the winter full-time group of my assistant, mechanic, and myself.

"Remember, the downsizing is gradual and I keep as many as I can on the payroll until we run out of golfing weather. That's usually around Christmas. Right now (November) we're still getting play and I'm down to six people. That's not bad when you think of it. However, I like to keep everybody working all of the time.

"Some of the laid off people get unemployment benefits. That is understandable because of the circumstances. But I'm fortunate in a way because so far I've had four laid off workers return in the three years I've been here.

"Overall, I've also been lucky keeping the nucleus of my help. Some of my crew have been here six years. That's the key to conditioning success. It's much easier when we don't have to train new people every year. The more returnees the easier it is on the superintendent and the golf course."

Bob Matthews, Marshfield Country Club: Some of the golf clubs in New England are going with the idea that a core of experienced people is necessary to get the new golf season into swing without a maintenance hitch. We're one of them.

"I'm able to keep seven people working full-time, year-round. That's on a regular 40-hour week basis. The full-timers include myself, my first assistant, second assistant, mechanic, and three grounds men.

"This eliminates getting a staff lined up in time to get the regular maintenance program rolling at high gear around March 15. The only way you can do that is to be assured your experienced workers will be on hand when those vital conditioning times of spring hit the course.

"Oh, there's plenty to do for the seven guys here year-round. The big job of winter is getting the equipment ready for another season. Here, we have the luxury of having people familiar with that equipment when it comes time to steam-clean it and get it ready to be overhauled. On that score I'd like to report that 99 percent of our overhauling work is done in-house. That's a pretty good rate of doing the work yourself.

"The other off-season chores include closing down the irrigation system, covering select greens, and battling the leaves. The latter is an ongoing proposition. There always seem to be leaves that need clearing.

"Our membership likes to keep golf a year-round sport just as much as I like to have year-round help. We accommodate them as best we can, allowing them to use regular greens as long as conditions make that feasible.

"I do offer a few part-time winter jobs, mostly to high school kids who put in three-hour shifts (no overtime scheduled) for shoveling snow and using a small snowthrower. But, as I said before, the key to a successful getaway on the maintenance trail is to have that hard core of experienced workers ready to give it the big push come spring."

GERRY FINN

والمترار أورا ويترار أورا ويترا المطرية والمترار أوا والمترار أورا والمترار أورا والمترار أورا والمترار أوالمترار أورا والمترار والمترار أورا والمترار أورا والمترار أورا والمترار أورا والمترار والمترار أورا والمترار والمترار أورا والمترار أورا والمترار أورا والمترار أورا والمترار والمترار

Research Report

Turfgrass Nematode Studies '96, Part II

by Robert L. Wick,
Department of Microbiology,
University of Massachusetts

(Submitted Jan. 29, 1997)

(Part IV, V, and Conclusion)

IV. Effect of the Plant Growth Supplement, 3D- on Plant Parasitic Nematodes.

Introduction: It is becoming increasingly important to find alternatives to organophosphate nematicides for use in turf. Due to concerns for the environment, and public awareness in general, rates of these nematicides have been reduced. Also, due to the potential risk to the applicator, there is reluctance among some golf course superintendents to apply nematicides. Safer alternative materials that would reduce nematode populations below damaging levels would be of great benefit to the golf industry. The plant growth supplement 3D has been shown to reduce Hoplolaimus nematodes in greenhouse trials. Based on these findings, 3D was trialed in 1995 and again in 1996 on the same plots.

Methods: Quaboag Country Club in Monson, Mass. was selected because of a history of high populations of Tylenchorhynchus (stunt) nematodes, and a moderate population of Hoplolaimus (lance) nematodes. On Green #5, 15 plots were established. Plots were 6'x6' and completely randomized. There were three treatments replicated five times. Treatments consisted of one application of Nemacur, seven applications of 3D, and an untreated (water) control. Nemacur was applied once at the rate of 2.3 lbs./1,000 sq. ft. 3D was applied at the rate of 2.3 oz. a.i./1,000 sq. ft. for each of eight applications. The first application of Nemacur and 3D was on May 31; six subsequent applications of 3D were on June 13 & 28, July 11 & 25, August 8 & 22, and September 15. Stunt, lance, and needle nematodes were monitored, but due to low populations of needle nematodes, only stunt and lance populations are reported here.

On October 3, 1996, root dry weight was assessed for each treatment by removing five 1/4" cores from each plot.

وريس والمراز و

Results and Discussion: Stunt populations started out the season very high; approximately 3,000/100 cc of soil. The control plots had stunt populations of about 3,700 by June 28 while the 3D and Nemacur plots slowly declined during the course of the year. Nemacur resulted in a significant reduction in nematodes compared to the control, but the difference ended by August as the populations declined. Lance nematode populations remained relatively stable over the season except for a dip in the Nemacur treatment on July 28. No conclusions can be drawn from the lance population data because the numbers at the beginning of the season were not equal. The data indicate that Nemacur resulted in a drop in stunt nematodes, but the suppression was short lived.

Root dry weights were significantly greater for the untreated controls than for the Nemacur or 3D treatments. It is likely that five cores per plot is not a statistically valid number of subsamples to carry out a reliable assessment.

V. Effect of the Biocontrol Agent Diterar on Nematodes.

Introduction: Ditera is a biocontrol agent derived from the fungus *Myrothecium*. The product is a fermentation product rather than a living fungus. It has shown very promising results in the field for plant pathogenic nematodes of vegetable crops.

Methods: A putting green in South Hadley, Mass., was chosen for the trial because of a relatively high population of Hoplolaimus. Data was also collected for Tylenchorhynchus, Criconemella and Longidorus. The turf was a mixture of annual bluegrass and bentgrass. The putting green, approximately 70 years old, was built on native clay soil, with an upper layer of 3-4" of sandy soil. Mechanical analysis of the top 4" of soil demonstrate it to be 83.6% sand, 11.9% silt, and 4.5% clay. USDA criteria would classify the soil as a loamy coarse sand based on the sand subfractions. Plots

and completely randomized. The treatments consisted of: (1) no treatment; (2) Nemacur at 2.3 lbs./1,000 sq. ft.; (3) Myrothecium WP at 100 lbs./A; and (4) Myrothecium WP at 50 lbs./A. Applications were made on June 10, 1996. Ten subsamples per plot were taken at each harvest date, bulked, and extracted.

were 6'x6', six replications per treatment.

Ten subsamples per plot were taken at each harvest date, bulked, and extracte Nematodes were recovered by wet sieving/sugar flotation and identified to genus. The data were subjected to a one-way analysis of variance and a test of LSD.

Results and Discussion: Results for *Criconemella* suggest that Ditera and Nemacur showed activity starting about August 1. However, the data should be ignored because ring populations are typically very clumped in distribution to the extent that the number of subsamples taken per plot could not provide a reliable estimation of the population.

For Hoplolaimus, the only significant differences in treatments were between Nemacur and the half rate of Myrothecium on August 1 and August 29. At this time, the half rate of Ditera was significantly greater than the Nemacur treatment. I suspect this was an artifact of uneven nematode distribution rather than a stimulation of the population by the product. The full rate of Ditera appears to have suppressed Hoplolaimus, although the differences were not statistically significant. For Longidorus, the only significant difference occurred on August 29 where Nemacur resulted in a higher population than the other treatments. These numbers (of Longidorus) are rather low, and I was surprised to see a statistical separation. I am inclined to believe it is an artifact. Tylenchorhynchus populations appear to be suppressed by the Nemacur but no statistical differences were seen. This is most likely due to the low numbers and plot to plot variation.

Ditera has promise as a nematicide and should be trialed again. One reason for the lack of significant control may be the fact that the 40-micron particles have difficulties moving into the turf. Next year,

continued on page 5

"Remember when?": Looking at GCSANE's past

وران المرارية والمراج المراج ا

Remember when? looks at significant events and individuals of GCSANE's past.

25 years ago

Waterbury C.C. superintendent and GCSAA official Charles Baskin reports that some headway has been made in effecting an adequate national retirement program for association members.

"We're trying to encourage a plan which includes transferable vested rights," Baskin reported to a GCSANE gathering after an appearance before the House Ways and Means Committee in Washington. "I've heard of many cases where a man left a job with six months left to go on his vested rights requirement. And he wound up losing it all. We have to avoid this, since we are apt to move out of a job three or four times in a career." Baskin added that he'll continue to lobby for transferable vested rights in an attempt to bring security into the overview of the golf course superintendents' profession.

15 years ago

One of the giants of the golf course equipment industry was remembered as a true friend of the superintendent after the death of Orville Clapper at the age of 87.

Clapper, who founded the New England Toro Company in Newton, served the maintenance wing of golf for 53 years, continuing the tradition of his father, John Samuel Clapper, who was founder of the original Toro Manufacturing Company. "I can't ever remember Orville

approaching me with an idea that would not benefit my operation in the end," retired super Phil Cassidy said. "He was interested in our profession, not from just a sales standpoint but from a genuine feeling for and understanding of the many problems we faced. He would have considered himself a close friend even if he'd sold me only one coupling."

Among the winners of November golfing events on the GCSANE agenda were Brian Cowan (low gross), Doug Johnson (low net) and Max Mierzwa (2nd low net) in regular play at Needham, plus Kip Tyler and Billy Ziobro of the Salem Country Club, who waxed the field in the pro-super championship at Brae Burn.

5 years ago

GCSAA president William Roberts, in a letter to GCSANE research chairman Chip Brearley, commended the New England group for being the first national affiliated chapter to commit financial support to the GCSAA study of pesticide exposure.

"If more chapters, corporations, and individuals follow the example you've set, we will be capable of doing tremendous work that will benefit our profession for decades to come," Roberts wrote.

GERRY FINN

Friend of the Association Profile

Meet Irrigation Management & Services

Irrigation Management & Services was established in 1989. Bob Healey entered the irrigation consultant field with 22 years in golf course maintenance and irrigation. He has been an assistant superintendent, a sales/design engineer for a distributor, and an irrigation contractor.

Bob was certified by the Irrigation Association in 1985 for commercial design and in 1986 for golf course irrigation design, and has been a Professional Member of the American Society of Irrigation Consultants (ASIC) since 1986. He has been a Friend and Affiliate Member of the GCSANE since 1989, a member of the GCSAA since 1992, and a member of the Donald Ross Society since 1995.

He received his degree in mechanical engineering in 1974.

IMS specializes in developing irrigation reference manuals and developing strategies for future upgrades and master planning. These manuals, typically 160-180 page reports, note existing conditions, soil intake rates and precipitation rates, locate all heads and valves, and make recommendations and conclusions.

This unique and extensive background of design, education, supplies, construction, maintenance, and operations in the golf and irrigation field enables IMS to offer a rare combination for system evaluation, consulting, and irrigation design to the golf course superintendent.

Turfgrass Nematode Study continued from page 4

I propose to use the EC formulation and inject the material into the root zone.

VI. Concluding Remarks.

- 1. A single application of Nemacur in mid-April was effective in reducing cyst nematodes. The second applications did not result in benefits during 1996. However, the benefits probably will not be known until 1997. These plots will be monitored in 1997, (no additional nematicide will be used).
- 2. The root-knot control studies were not conclusive; however the June

application of Nemacur appeared to suppress the nematode. These plots will be used to evaluate the biocontrol agent Ditera in 1997.

- **3.** Steinernema riobravis, formulated as Vector, did not result in a reduction in nematodes in 1995 or 1996. Nemacur controlled stunt nematodes in these trials.
- 4. Eight applications of the plant growth supplement, 3D did not result in suppression of stunt and lance nematodes. Nemacur suppressed stunt nematodes.
- **5.** The biocontrol agent Ditera showed promising results against stunt nematodes at the higher rate. This product will be

 $_{obstraction}$

trialed again in 1997. The product would probably work better if injected into the turf. It is also possible that several applications would provide better control.

Acknowledgments: I thank the Golf Course Superintendents Association of New England and Abbot Laboratories for financial support. Also, thanks to cooperators Randy Martin, Robert Nielsen, Andy Gay, Dave Bergeron, Mark Williams, Shawn Fernandez, Kevin Killoy, and Jeff Butler. Thanks also to Truth Nissembaum and Nathaniel Mitkowski for helping to collect samples, and for working long hours in the lab extracting and identifying nematodes.

GCSAA News

GCSAA monitors a range of legislative, court, & agency activity

The theory that pesticides cause breast cancer was debunked in an important new study published in the prestigious New England Journal of Medicine. Government action, especially in New York, was prompted in recent years by smaller studies that made a link between breast cancer and pesticides. The author of a study often cited by activists was involved in the latest research. A summary is available on the Internet at www.nejm.org/public/1997/0337/001 8/1303/1.htm.

EPA and state environmental commissioners have agreed to place more emphasis on environmental outcomes than on the level of government activities in evaluating results of their programs. A single set of core performance standards for measuring collective environmental and program progress was agreed on by EPA and the Environmental Council of the States.

Environmental crimes would be easier to prosecute under legislation recently unveiled by the Clinton Administration. The bill would increase penalties

for environmental crimes, provide heavier punishments when an environmental crime causes death or serious injury, and allow prosecution of an entity that attempts an environmental crime but is stopped before the act is committed.

The availability of some organophosphates (OPs) would be jeopardized if the EPS follows the recommendations of the International Life Sciences Institute. The Institute told EPA all 39 OPs should be considered together in one "risk cup" when the "cumulative exposure" risk determination is made during the tolerance review process required under FQPA. Under the law, some product uses would have to be eliminated by manufacturers if the total aggregate risk is too high.

Pesticide manufacturers will pay 35 percent more for annual product registrations with EPA beginning in 1998. The charge for the first registration will go from \$700 to \$950, and subsequent registration fees will rise from \$1,400 to \$1,900, authorized by the 1996 FQPA.

The use of agricultural pesticides has increased slightly while use of pesticides in homes and businesses has decreased, according to the EPA. Pesticide Industry Sales and Usage - 1994 and 1995 Market Estimates is available on EPA's web site at http://www.epa.gov/pesticides.

EPA's widely publicized *Index of*Watershed Indicators is available to the public on the Internet at http://www.epa.
gov/surf/iwi. The site has received much hype by the agency, but contains little useful information. The index has information on water quality assessments and water sources for watersheds nationwide.

The Outdoor Power Equipment
Institute (OPEI) has obtained an exemption under Phase I emission standards
for "replacement" engines to fit used lawn equipment. All small gasoline engines made after Sept. 1, 1997 must be certified for Phase I emission standards. Manufacturers can produce a small number of uncertified replacement engines if they meet conditions set forth by EPA.

DIVOT DRIFT...announcements...educational seminars...job opportunities ...tournament results...and miscellaneous items of interest to the membership.

MEMBERSHIP

Proposed for Membership: Terrance P. Baker, Superintendent, Cohasse C.C.; Kevin P. Congdon, Assistant Superintendent, Cohasse C.C.; Steve Mollieux, Assistant Superintendent, Easton C.C.

Welcome New Members: Geoffery D. Houghton, Superintendent, Agawam Municipal G.C.*; Donald Neil, Superintendent, Hemmingford Golf & C.C.; Donald T. Nunes. Superintendent Chicopee C.C.; Stephen G. Cadenelli, Superintendent, Cape Cod National G.C.; Carl. A. Oliveira, Assistant Superintendent, Andover C.C.; Timothy Hanrahan, Assistant Superintendent, South Shore C.C.; The F.A. Bartlett Tree Expert Co., Friend, Beverly Farms, Mass.; Tom Cottens, Affiliate, Cavicchio Greenhouses; Fred Green, Affiliate, Cavicchio Greenhouses; and Paul Cavicchio, Affiliate, Cavicchio Greenhouses. (* Pending GCSAA dual membership requirements being met.)

MEETING NOTES

Thanks to Richard French for hosting the GCSANE November meeting. He and the staff at Longmeadow C.C. provided us with a wonderful golf course.

Thanks again to Robert DiRico and the staff at Brae Burn C.C. for hosting the GCSANE October meeting.

We Want You! If you would like to host a monthly GCSANE meeting, please call Michael Hermanson at (508) 632-2713. We need member input, participation, and support. We're here to serve all our members, not just a select few. Get involved.

INFORMATION

20% discount. Ann Arbor Press (121 South Main St., Chelsea, MI 48118; Phone: (313) 475-8787; Fax: (313) 475-8852) is offering a 20% discount to our members on the following books: Destructive Turfgrass Insects: Biology, Diagnosis, and Control, by Daniel A. Potter, U. of Kentucky (retail: \$65); Turfgrass Management Information Directory, 2nd edition, edited by Dr. Keith Karnok (retail: \$34 95); IPM Handbook for Golf Courses, by Gail Schumann, Patricia J. Vittum, Monica L. Elliott, and Patricia P. Cobb (retail: \$54.95).

The budget meeting for nine-hole golf courses will be held Jan. 15, 1998, 9 a.m., at Whitinsville G.C. If you plan on attending or want more information contact Paul Wilson at (508) 234-2533.

ورائية والمراب والمراب والمراب والمناز والمراب والمناز والمراب والم

The Pesticide Disclosure Act, Senate Bill 1062, has been changed to Senate Bill 1886.

POSITIONS AVAILABLE

Golf Course Superintendent. Agawam Municipal G.C., Agawam, Mass., is seeking a golf course superintendent. A two or four-year degree in turfgrass management or related field is preferred. Seeking a highly motivated individual with a minimum of three years of experience as assistant or superintendent. Responsible for maintenance of golf course, equipment, capital improvements of course properties, budget, and purchasing. A competitive compensation and benefits package including retirement is available. Mail/fax resume to: Personnel Office, Town of Agawam, 36 Main St., Agawam, MA 01001; Fax: (413) 786-9927. Application deadline Jan. 10, 1998.

Assistant Golf Course Superintendent. Wachusett C.C., West Boylston, Mass., is seeking an assistant superintendent. Applicants must have three to five years golf course maintenance, a two or four-year degree in turf management, and be certified as a pesticide applicator in category 37 (turf). Send resume to: Matthew Marrone, Superintendent, Wachusett C.C., 187 Prospect Street, West Boylston, MA 01583.

Please patronize these FRIENDS of the ASSOCIATION

Advanced Agronomic Services, Inc. 91 Day St., Leominster, MA 01453 Deep-line aerfication, core aerification, overseeding, and irrigation services. Jim Favreau - (978) 840-0432

A-OK Turf Equipment
9 Leuba Road, Coventry, RI 02816
New England Articulator dealer,
Greens Groomer Brush, & used equipment.
Mike Cornicelli - (401) 826-2584

AA Will Materials Corporation 168 Washington St., Stoughton, MA 02072 Top dressing & bunker sand, loam, decorative stone, & landscape materials. Est. 1886. Frank Will, Dan Graziano, Kevin LaPorte 1-800-4-AWILL

Agr-Evo U.S.A. Co. Wilmington, Delaware David Sylvester - (203) 828-8905

Agriturf, Inc. 59 Dwight St., Hatfield, MA 01038 Fertilizer, seed, and chemicals for turf. 1-800-346-5048

Allens Seed Store, Inc. Specializing in quality seed and related golf course maintenance supplies. Gregg Allen - (401) 294-2722 (car phone - (508) 577-1001)

Baker Golf Cars 40 Walker St., Swansea, MA 02777 Steve Founier, Doug Hooper (508) 379-0092

Bartlett Tree Experts 153 Rumford Ave., Newton, MA 02166 Consulting, planning, IPM MoniTor®, pruning, fertilization, & plant appraisal Jack Kelly - (617) 969-5990

Bay State Organic / MWRA 100 First Ave., Charlestown Navy Yard Boston, MA 02129 Manufacturer & supplier of dry organic fertilizers Amy Barad - (617) 241-6261

Bayer Corporation 118 Ellery Ave., Middletown, RI 02842 Baylaton, Merit, Dylox, Tempo, Nemacur. Brad Herman - (401) 846-3515; FAX (401) 846-8012

The Borden Company Maynard, MA Bulk limestone dealer. Jack Borden - (978) 897-2571

Boston Irrigation Company Dedham, MA Distributor, irrigation supplies & accessories. John Ramey, Paul Kenyon, Robert Barbati (781) 461-1560

The Cardinals, Inc. 166 River Rd., P. 0. Box 520 Unionville, CT 06085 Golf course & landscape supplies. John Callahan - (203) 673-3699

Cavicchio Greenhouses, Inc. 110 Codjer Lane, Sudbury, MA 01776 Grower of annuals, perennials, garden mums, & ground covers Darren Young - (978) 443-7177

Cedar Lawn Tree Service, Inc. 32 Nickerson Road, Ashland, MA 01721 Pruning, fertilization, removal, & professional care. William P. Maley - (508) 881-2622

Geoffrey S. Cornish & Brian Silva Golf Course Architects Fiddlers Green, Amherst, MA 01002

Country Club Enterprises, Inc. P. O. Box 820, Cataumet, MA 02534 Club Car golf cars, Carryall utility vehicles. Steve Butler, Dave Farina, Ed Maguire (800) 662-2585 Country Golf, Inc. 4852 Westchester Dr., Traverse City, MI 49684 Golf course construction & reconstruction; specialists in Donald Ross courses. Jerry Deemer - (616) 947-5751

Douglas Equipment Corp. 90 Douglas Pike, Smithfield, RI 02917 John Deere golf & turf equipment dealer Paul T. Surabian, Pres.; Allen Vadala, Sales Rep. (401) 232-3700

Michael Drake Constuction, Inc. 240 Walnut Street, Framingham, MA 01701 Golf course reconstruction; professional shaper. Michael Drake - (508) 875-8247

Elanco Products Company 31 Old Town Trail, Narragansett, RI 02882 Bob Scott - (401) 376-7290

F.D.I., Inc. (Fairway Design Illustration) 55 Railroad Ave., Warren, RI 02885 Custom granite signs & markers. Joseph K. Martin, Robert Page (401) 245-7890 or 1-800-358-8337

Gold Star Wholesale Nursery & Sod Farm Bill Thompson Lexington, MA - (781) 861-1111 Canterbury, NH - (603) 783-4717

The Charles C. Hart Seed Co. P. O. Box 9169, Weathersfield, CT 06109 Roy Sibley, Dick Gurski 1-800-326-HART

Hartney Greymont 433 Chestnut St., Needham, MA 02192 Tree care, landscape consruction, consulting. Mark J. Tobin - (781) 444-1227

International Golf Construction Co. 5 Purcell Rd., Arlington, MA 02174 Golf course construction. Antonios Paganis (617) 648-2351 or (508) 428-3022

Irrigation Management & Services 21 Lakeview Ave., Natick, MA 01760-4252 Irrigation consultation, design & system evaluation. Bob Healey, ASIC, CID - (508) 653-0625

Tom Irwin, Inc. 11B A St., Burlington, MA Jack Petersen, Wayne Ripley, Dennis Friel Paul Skafas, Chris Petersen 1-800-582-5959

Ken Jones Tire Co. Worcester, MA Distributor of tires for lawn & garden, trucks, cars, industrial equipment, and golf carts. Gerry Jones - (508) 755-5255

Landmark Construction
42 Charnock St., Beverly, MA 01915
Tee/bunker shaping & remodeling,
cart path work, drainage, tree planting,
k landscape construction our specialty.
Daniel Champion - (978) 927-5052

Larchmont Eng. & Irrig. Co. Larchmont Lane, Lexington, MA 02173 Keith Savage - (781) 862-2550

Lazaro's Golf Course Accessories dba Hammond Paint & Chem. Co., Inc. 738 Main St., Suite 223, Waltham, MA 02154 Joseph Lazaro - (781) 647-3361

LESCO, Inc. 20005 Lake Rd., Rocky River, OH 44116 Ron Tumiski, Mike Donohue 1-800-321-5325

Loft's Seed 22 Lantern Lane, Exeter, RI 02822 Victoria Wallace - 1-800-648-7333 Lycott Environmental Research, Inc. 600 Charlton St., Southbridge, MA 01550 Environmental consulting services: lake & pond management, wetland studies, site assessments, & laboratory analysis. Lee Lyman, president - 1-800-462-8211

D.L. Maher Co. Box 127, Concord St., N. Reading 01864 Water supply specialists; water wells & pumping equipment. (978) 933-3210

McNulty Construction Corp. 19 Turner Rd., P.O. Box 3218 Framingham, MA 01701 Asphalt paving of cart paths, walkways, and parking areas. John McNulty - (508) 879-8875

Meco Environmental, Inc. 1119 Washington St., Weymouth, MA 02189 Installation of UST/AST, pump/tank upgrades, and oil/water separator installation. Greg Murphy - (781) 331-6446

Modern Aeration Service, Inc. 212 Kendrick St., Newton, MA 02158 Featuring water injection aeration. Kevin Osgood - (617) 630-1950

Modern Tractor & Truck Service, Inc. 400 Pine St., Seekonk, MA 02771 Holliston sand/loam topdressing mixture, 1/2" or 1/8" screened loam, underground tank removal, Convault aboveground fuel tank. Steven S. Howitt - (508) 761-5554

R.F. Morse & Sons, Inc. W. Wareham, MA 02576 Larry Anshewitz, Jack Cronin, Christopher Cowan (508) 295-1553

Nardone Sand & Gravel Co., Inc. 37 Power Rd., Westford, MA 01886 Topdressing sand & mixes, bunker sands, root-zone mixes, loam, cart path materials, drainage stone. Greg Frederick - (978) 692-8221, (781) 648-6222

Novartis Turf & Ornamental 394 Monson Tpk. Road, Ware, MA 01082 Novartis Specialty Products David Ravel - (413) 967-6745

Partac Golf Course Top-Dressing Kelsey Part, Great Meadows, NJ 07838 Heat treated top-dressing, golf hole targets, turf blankets, and other specialty golf supplies. Jim Kelsey - 1-800-247-2326, (908) 637-4191

P.I.E. Supply Co.
For your irrigation needs; dedicated to sales and service of quality irrigation equipment.
Greg Albanese - (617) 964-8533 (phone/fax)

Prescription Turf Services, Inc.
Complete deep-tine and hydro-injection services,
custom fertilizer and pesticide applications,
fairway aeration, and top dressing operations.
Scott McCoy - (978) 777-1663

Pro-Lawn Products, Inc. 24 Johnathan Rd., W. Greenwich, RI 02817 Specializing in turf & ornamental needs. (401) 397-8880

Read Sand & Gravel, Inc. 171 VFW Dr., Rockland, MA 02370 Topdressing, root-zone mixes, bunker sand, 3/4 & 3/8 screened loams, cart path materials, mulch, drainage stone. Joe Farina - 1-800-660-2955

J.P. Roberts Co. Technical resource catalog; survey-weathertesting-measurement & diagnostic equipment. Barbara Piantedosi - (508) 456-6886

Sani-Mate Supply, Inc. 88 Shrewsbury St., Worcester, MA Distributor, Karcher hot high pressure equipment & bulk detregents, sales, service, rentals Barry Hackett - (508) 752-8888

والمتعربين والمتعرب والمتراء والمتعرب والمتران والمتران والمتاب والمتاب والمتاب والمتاب والمتعرب والمتعرب والمتاب والمتعرب والمتع

Sawtelle Bros. 65 Glenn St., Lawrence, MA 01843 Bob Brown, Larry Bunn, Mike Hannigan, Frank Higgins, John Lenhart (978) 682-9296

Scotts Pro-Turf Div. Mike Peterson, Regional Director Randy Hamilton - (508) 528-4642 Richard Fomi - (413) 534-8896

Sodco, Inc. P.O. Box 2, Slocum, RI 02877 Matt Faherty, Pat Hogan Bluegrass/Fescue, Bluegrass/Rye, Bluegrass/Fescue/Rye, Bentgrass 1-800-341-6900

Sports Club Management 104 Wyman Rd., Braintree, MA 02184 Hazcom and right-to-know compliance implementation. Ron Smith - (781) 848-5978

Dahn Tibbett
Professional Golf Services
d/b/a/ Weed & Feed, Inc.
20 Clark Lane, Marshfield, MA 02050
Specialists in golf course construction and irrigation installation. We also offer a wire tracing service.
(781) 837-3503

Tee and Green Sod, Inc. Exeter, RI 02822 Bentgrass, Bluegrass and Blue/Fescue sod. Dave Wallace, Robin Hayes (401) 789-8177

Tuckahoe Turf Farms, Inc. Richmond, RI Chris Beasley - 1-800-556-6985

Turf Enhancement Enterprises Featuring Floratine Products, Precision Small Engine Co. & Trion Lifts. Tom Fox - (508) 865-9150

TurfNet Associates, Inc. 21 Brandywine Road, Skillman, NJ 08558 Communication, information, market intelligence. Peter L. McCormick - 1-800-314-7929

Turf Products Corp.
157 Moody Road, Enfield, CT 06082
Distributors of Toro irrigation and maintenance equipment, lightning detection systems, and other golf-related products.
Irrigation products: Tim Berge & Palmer Whitney, Commercial products: Ed Fallow, Rick Moulton, Mike Turner, & John Winskowicz; (860) 763-3581

Turf Specialty, Inc.
15 Londonderry Rd., Londonderry, NH 03053
Turf & ornamental supplies.
Scott Mackintosh, Kevin Lyons,
Dave Schermerhorn, John Lensing
1.800.228.6656

United Horticultural Supply P.O. Box 7, Sodus, NY 14551 Fertilizer, seed, chemicals, and IPM. Glen Larabee - (508) 223-4931 Bruce Chapman - (401) 885-5245

Varney Bros. Sand, Gravel & Concrete Bellingham, MA Concrete golf cart paths. Kenneth Mooradian - 1-800-441-7373

Winfield Nursery 1320 Mountain Rd., Suffield, CT 06109 Wholesale nursery trees & shrubs. Jeff Rogers

Philip Wogan & George F. Sargent, Jr. Golf Course Architects 17 Walker Rd., Topsfield, MA 01983 (978) 887-3672

Zip Type Service 50 Kent St., Newburyport, MA 01950 Design, printing, mailing, advertising specialties. Sheila Johnson - (978) 462-9358

Host Superintendent Profile

Meet host superintendent Wayne LaCroix, Andover C.C.

والمتران والم

The host superintendent for our meeting in December was Wayne LaCroix of Andover Country Club, Andover, Mass.

Like many superintendents, Wayne began his turf career early in life, playing in the dirt. As a happy toddler, Wayne merrily re-shaped the earth with bucket, shovel, and spoon, little realizing that he was building the foundation for his future.

While still a young boy, he learned that there was more to frolicking in the dirt than just making mudpies. He learned that grass grows in it. This revelation spurred him on to even greater discoveries about the delicate relationships between earth, sun, wind, and water — indeed, the physical world upon which all life depends.

However, his route to becoming a golf course superintendent was not always like skipping down a rose-garden path. Take, for example, his first exposure to golf. He was riding his bike past a golf course, and wondered why all those middle-aged men were rooting through the bushes on the edge of a beautiful field, muttering angry, gutteral, one-syllable words he did not understand. Years later he overcame this initial negative impression, and in fact came to embrace the game of golf. He even

وروس والمراب والمراب والمراب والمساورة والمساورة والمساورة والمناط والمراب وال

learned the language of those middle-aged men, though today he is simply too nice a guy to use it.

Later Wayne had to face the grim reality that if he wanted to continue to play in the dirt as an adult, he would have to seek higher education, study hard, and learn to become a scientist, fortune-teller, engineer, and personnel manager at the same time! He did so, and the rest of the story is still being written in the evolving natural history of Andover Country Club.

In his spare time, Wayne enjoys eating, sleeping, and toiling late into the night as editor of the GCSANE *Newsletter*.

FIRST CLASS

First Class Mail U.S. Postage

P A I D
Mewburyport, Ma
Permit No. 61

Return to: 190 PARK ROAD 190 PARK ROAD

