

Connecticut Clippings

Volume 41, No 4

December 2007

2007 ANNUAL MEETING

The 2007 Annual Meeting was held on November 5 at the Club at River Oaks in Sherman, CT. The well run meeting saw the passing of changes to the By-laws and a \$10.00 dues increase. The bylaw changes in Article II, Section 2, Initiation Fee, Dues, Assessments now makes the date of dues payment January 31 of the dues year, not December 31 of the previous year, and there is a reduction in the fee for late payment from 10% monthly to 1 1/2% monthly. In Article III, Section I, Nonpayment of Dues or Assessments, the addition

of assessments a member has incurred (meeting fees from previous year not paid, for example) along with dues for that year being paid are required to be in good standing with the association.

The Board of Directors was elected as presented. Pictured here from Left to Right in the front row are Kimberly Heyl, Fenwick GC, Vice President, Scott Ramsay, CGCS, The Course at Yale, Government Relations, Paul Bonini, CGCS, Watertown GC, Scholarship & Research, Mark Mansur, Win-

tonbury Hills GC, Secretary, Christian Mauro, Highfield CC, President, John Garcia, The Patterson Club, Treasurer, Scott Lund, Ridgeway CC, Class C Rep to the Board. In the back row from Left to right are Charles Babcock, Tunxis Plantation CC, Social & Welfare, Eric Morrison, Shennecossett GC, Golf, Michael Donahue, Turflinks, Commercial Rep to the Board, Donald Beck, Fishers Island Club, Education, Sean Flynn, Great River GC, Membership, Keith Angilly, Mill River CC, Past President.



IN THIS ISSUE...

President's Message.....	2
Annual Meeting Results.....	3
The McLoughlin Trophy.....	3
Times Have Changed.....	4
GCSAA Selects Award Winners..	5
UConn Hires Turfgrass Tech.....	5
Grasscatcher.....	6
September & October Results.....	8
Mona to Leave GCSAA.....	9
Annual Bluegrass Weevil.....	10-11



Keith Angilly, President

The President's Message

become a better Superintendent in the process.

Our Association remains very healthy, thanks to the efforts of the many committee chairs with whom I have served. Our meetings have been well attended and reasonably priced, thanks to the many fine Superintendents who have stepped up and provided their facilities for our use. Many thanks go out to Mary Jo Kennedy for all of her efforts. She

made my tenure an easy one. I hope that my legacy has improved relations with our Allied Associations here in CT, and will continue do whatever is necessary to keep that going. It is very important to how we are perceived in our day-to-day positions. Once again, thanks to all members, past and present, who have contributed to the success of our Association.

Good luck,
Keith Angilly

Well, how time flies. As my term as your President is nearly complete, this will be my last President's message. It has been an honor to serve this fine Association for the last seven years. Board service is something that I highly recommend all members try at some point in their career. I have had the opportunity to meet many people along the way, become comfortable with public speaking, and most importantly



*The Board of Directors of CAGCS
would like to wish all members and
their families a happy, healthy
and safe holiday season!*



Connecticut Clippings is an official publication of the Cois an official publication of the Connecticut Association of Golf Course Superintendents

Newsletter Editor
Bob Chalifour, CGCS (Ret.)
Co-Editor
Heather Garvin

Newsletter Committee
David Basconi, John Garcia,
Edward Goodhouse, Ron Holcomb,
Mike Mooney and Jud W. Smith

The *Clippings* is open to all commentary.

Please send your comments to:
Bob Chalifour, Newsletter Editor,
39 First Street
Groton, CT 06340

NORTHERN NURSERIES, INC.

Wholesale Horticultural Distribution Centers

Winfield Division
1320 Mountain Rd.
P.O. Box M
West Suffield, CT 06093



TERRY MISH
Manager

Phone: (860) 668-5225
Fax: (860) 668-5714

Mike Krudwig
A.S. Plant Science

Regional Sales
Representative

WINDING BROOK TURF FARM, INC.



800-243-0232
Fax (860) 529-6807
Cell (860) 883 0475
Email: kruds@comcast.net
www.windingbrookturf.com

240 Griswold Road
Wethersfield, CT 06109
and
1554 Alfred Road
Lyman, ME 04002

ANNUAL MEETING RESULTS

THE CLUB AT RIVER OAKS

Monday, November 5, 2007 | 9-Hole ABCD Scramble

1st Low Gross

Chris Mauro, Highfield CC
 Marc Maxim, Candlewood Valley CC
 Al La Prise, Allens Seed Store
 Jay Anderson, BISCO

1st Low Net

Eric Morrison, Shennecossett GC
 Kevin Balocca, LESCO
 Jon Case, Airways Golf Course

2nd Low Net

Sean Flynn, Great River GC
 James Stafstrom, Club Car
 Bruce Morse, Norwich GC
 Melissa Gugliotti, Syngenta

3rd Low Net

John Callahan, The Cardinals
 Scott Ramsay, The Course at Yale
 Patrick Nunn, Great River GC

Closest to the line

Mark Mansur, Wintonbury Hills GC

Closest to the pin

James Stafstrom, Club Car

Closest to the pin

Sean Flynn, Great River GC

Long Drive

Sean Flynn, Great River GC

Long Putt

Keith Angilly, Mill River CC



For more about...

Pegasus™ L, Pegasus DF, Firebird® GC, Vital®, Kestrel®, Lucid™, Current™, Knighthawk® & Symmetry™

Contact: Rick Grant at 317-776-9983
or visit www.phoenixenvcare.com

Pegasus, Knighthawk, Current and Symmetry are trademarks of Phoenix Environmental Care LLC. Vital is a registered trademark of Luxemourg-Pamol, Inc. Lucid is a trademark of Rotam USA. Firebird and Kestrel are registered trademarks of Phoenix Environmental Care LLC. Firebird GC is a Restricted Use Pesticide. Always read and follow label directions.

THE McLOUGHLIN TROPHY

From Dick Cook

The McLoughlin Trophy was donated in 1951 by Old Lyme CC Pro/Superintendent Roy McLoughlin, as he wanted to make a contribution to the local Greenskeeper Association. The trophy was first won at Shuttle Meadow CC or Wampanoag CC. Listed below are the names as they appear on the trophy.

1951	J. Whitehead	1980	T. Fletcher
1952	H.T. Lindenmuth	1981	G. Wojcik
1953	C. Baskin	1982	A. LeSage
1954	E. C. Anderson	1983	D. Cook
1955	E. C. Anderson	1984	D. Roule
1956	M. Ovia	1985	B. Phipps
1957	E. C. Anderson	1986	D. Stimson
1958	B. Kowalski	1987	T. Watroba
1959	B. Kowalski	1988	M. Wallace
1960	L. Kowalski	1989	T. Watroba
1961	D. Cook	1990	G. Wojcik
1962	B. Kristoff	1991	E. Lamphier
1963	H. Meusel	1992	J. Rogers
1964	D. Cook	1993	P. Wollenberg
1965	D. Cook	1994	D. Cook
1966	R. Viera	1995	R. Douglas
1967	D. Cook	1996	M. Decker
1968	G. Christie	1997	S. Moran
1969	H. Meusel	1998	P. Sabino
1970	P. Coste	1999	J. Stahl
1971	R. Barrett	2000	B. Skelly
1972	G. Bryant	2001	W. Urban
1973	G. Bryant	2002	W. Weichert
1974	D. Parsons	2003	M. Griswold
1975	A. Bachand	2004	C. Mauro
1976	R. Viera	2005	R. Goglia
1977	D. Cook	2006	W. Weichert
1978	R. Tosh	2007	S. Slevin
1979	P. Rappoccio		



Leggette, Brashears & Graham, Inc.

Professional Ground-Water and Environmental Engineering Services

A Tradition of Excellence Since 1944

There's no substitute for experience

LBG is backed by over 60 years of experience, with a proven track record on golf course projects.

- Irrigation and potable water-supply development
- Hydrogeologic testing and evaluations
- Water diversion permitting
- Stormwater runoff management and drainage design
- Pond design and permitting
- Site engineering and construction oversight
- Wash water treatment-system design and permitting
- Contamination assessment and remediation

Contact Rob Good at: (860) 678-0404 | (203) 929-8555

www.lbgweb.com

Member Since 2001

TIMES HAVE CHANGED

In the golf industry "times are changing" is no longer accurate – "times have changed!"

Most clubs have not shifted with the change in demands. There are approximately thirty (30) million golfers in the United States and only five (5) million have USGA Handicaps. There has been no spike in ten years. This means that there are 25,000,000 golfers that do not belong to organized golf clubs.

The good news is that we have the potential to attract many of these golfers as new members. Why are these golfers not joining your club?

If you belong to a country club with all the amenities and your membership has the "steam" to pay for these services, then you can continue to operate as you have in the past. These top-tier clubs continue to prosper and many clubs in this category have full waiting lists and their future seems insured.

This is not the case for many other private clubs that are experiencing a decrease in membership and no waiting lists. These clubs lose money annually in their "full-service restaurant". They seem to be in a downward spiral of losing money in the house because they are losing members, so they must raise dues, which causes them to lose more members. Today's golfer does not have the time or desire to support the clubhouse as members have done in the past. The best manager and/or the greatest chef will not change this cycle. There is just too much competition from numerous fine-eating establishments. The social operations of most private clubs do not match the demands of today's lifestyle.

Daily fee courses have actually grown in membership and rounds per year. These clubs are benefiting from the golfers that resign from their private clubs. They are playing fewer rounds

than they would have in the past, but they are only paying for what they use and this is very attractive.

Private clubs need to supply the amenities that current membership demands, otherwise they will spend less time at the club and that means less revenue. If a golfer plays 20 rounds per year at an upscale daily fee course for \$150 per round – he/she spends \$3,000 per year and if a private club is asking \$7,000 a year in dues and fees after an initiation fee, it is not a contest on what that golfer will do. Once you lose a dues-paying club member it could signal the beginning of the end.

The avid golfer does not want to grow the game. This member is doing no favor for the club. It is hard to convince this golfer that he should share his course with more players. But this is short sighted and is driving up the cost of membership. We need to reach out to women, minorities and other golfers that are currently not participating in organized golf. The impact will be a bigger golfing middle class, which will help the private-club culture.

Many ideas need to be explored. The members that are the biggest supporters of your club are usually down south for the winter. Some clubs have said this is 50 or 60 per cent of their membership. Should these clubs be open in the off-season? You may retain your key employees by rewarding them with this time-off. Other clubs do not serve dinners, but concentrate on lunch and casual dining after golf. Still other clubs have leased their kitchens

out to caterers or restaurateurs, which seems to be the best solution if the deal is constructed right for both parties.

Clubs may want to offer memberships for off-peak playing times. Some clubs have really stepped-up their drives for younger golfers by offering greatly discounted dues for golfers aged 18 to 35. No initiation fees or food or cart minimums, but full playing privileges. Other clubs are building back their membership by offering packages of non-equity memberships, weekday only memberships and a two-year trail membership. No initiation fee or bond, but after two years they must decide to remain a member.

Reciprocal agreements between clubs should be formalized. Players that are members of clubs A or B or C are allowed to play either of the other two courses during off-peak times. The players agree to use carts or caddies and support the restaurant each time they play. This could be an attractive marketing plan.

Public clubs and Men and Women's clubs must also shift with the times. Reach out to leagues and offer handicap-only memberships for the players that want USGA Handicaps, but do not have the time or desire to participate in a heavy tournament schedule.

If your club has other ideas we would love to hear them and spread the word. Please feel free to email anyone on the CSGA staff at <http://www.csgalinks.org/staff.asp>.

Your aerification and drainage solution!

Serving NY, CT and Western MA

- Dryject Aeration
- Deep Tine Aeration
- Core Aeration
- FloWick Drainage Systems



37 Oneonta Road • Carmel, NY 10512 • (914) 672-6029

GCSAA SELECTS MENDENHALL & MACCURRACH AWARD WINNERS

The Golf Course Superintendents Association of America (GCSAA) has awarded scholarship money to 16 college students as part of the Scholars Program administered by the GCSAA's philanthropic organization, the Environmental Institute for Golf.

The first-place winner, David Golembeski, will receive a \$6,000 scholarship as the Mendenhall Award Winner. The second-place winner, William Overly, receives a \$5,000 award and is designated as the recipient of the MacCurrach Award. The MacCurrach Award is funded by the PGA Tour.

Golembeski, of New Milford, Conn., is a senior majoring in turfgrass and soil science at the University of Connecticut. Overly, who hails from Louisburg, Kan., is a senior majoring in golf course management at Kansas State University. Both of them will also receive an all-expense-paid trip to the GCSAA Education Conference (January 28-February 2) and Golf Industry Show (January 31-February 2) in Orlando.

UConn HIRES TURFGRASS TECHNICIAN

Kyle Knox recently joined the staff at the Plant Science Research and Education Facility as a Lead Agricultural Worker. This new position will provide key support for the rapidly expanding turfgrass science program at UConn. As the new Turfgrass Technician, Kyle will assist the turfgrass faculty with all aspects of maintaining the more than 14 acres of turfgrass research plots in Storrs. "This is a key addition to the turf team at the University of Connecticut. We expect Kyle to make great contributions to all aspects of the program," said John Kaminski, Assistant Professor of Turfgrass Pathology.

Kyle brings with him over 12 years of golf course experience as an Assistant Superintendent at two area courses. In addition to his experience with golf course turf, Kyle worked for Championship Turf Services, which maintains Rentschler Field. Kyle earned his Bachelor of Science from the University of Connecticut in 1995 and completed the UMASS Winter School in 1997. He has extensive knowledge of various turfgrass species and pests, irrigation systems, and turf maintenance equipment and practices. Kyle resides in Manchester with his wife, Kristen, who is also a graduate from UConn's College of Agriculture and Natural Resources.



STAHL HOLDINGS L.L.C.



- Rye Golf Club
- Farmington Woods
- Redding C.C.
- Glen Arbor C.C.
- Quaker Ridge C.C.
- Great Rock C.C.
- C.C. of York
- Fenway G.C.
- Tuxedo Club
- Fishers Island
- Round Hill Club
- Hudson Hills
- Trump National
- Rock Ridge

Jeff J. Stahl 203-858-4136

ESD

Waste 2 Water

- Wash Water Recycle Systems
- Equipment Wash Water Treatment
- Bulk Chemical Mix and Load
- Chemical Storage Buildings
- Roll Over Chemical Mix Pads
- Chemical Containment

2007 Installations

- Piping Rock
- Wheatley Hills
- Nassau C.C.
- Marthas Vineyard
- Old Oaks C.C.
- Palmerton C.C.
- Tamarack C.C.
- Rolling Hills C.C.
- Sebonic G.C.
- Century G.C.
- Bonnie Briar
- Westchester Hills
- Sunningdale
- Hollowbrook

STAHL HOLDINGS L.L.C.
64 Barnabas Road Newtown CT 06470

Grass Catcher

CONNECTICUT
ASSOCIATION OF
GOLF COURSE
SUPERINTENDENTS

New Members

Christopher Guilmette, Class SM
Willow Brook Golf Course

Matthew Guilmette, Class SM
Cedar Ridge Golf Course

Christopher T. Ignazio, Class A
Chantclair Golf Course

Gordon Kauffman, III., Ph.D.,
Class Commercial
Grigg Brothers Foliar Fertilizers

Jay Martin, Class C
Woodbridge, Country Club

Alexander Simpson, Class C
Sharon Country Club

News

Class C Election will be held at the Winter Seminar January 15, 2008.

FOR SALE
2003 TORO HYDROJECT 3000
Only used 12 hours. Ready to go \$10,000.00
Contact:
Bob Silva
Hawks Landing CC
Home Phone 860/658-6370
Cell 860/490-6641



Condolences

On the passing of James F. Shay, Hartford Educator on 10/22/07, he was the father of Daniel Shay, GCS Wilbrham CC.

Congratulations

Dr. Nathaniel and Sara Mitowski Turf Pathologist URI on the birth of their daughter Sadie.

Eric Morrison on winning a Bayer award to attend the Golf Industry Show in Orlando FL.

To Steve Mona CEO of GCSAA on his new position with the World Golf Foundation.

2007 Pin Recipients will be in next issue.



CAGCS WINS MET TEAM CHAMPIONSHIP

Pictured left to right: Eric Morrison, Mike Dukette, Paul Bonini, Eric DeStefano, Peter Bacon, Chris Mauro, Les Kennedy Jr. Sean Flynn



Serving The New York Tri-State Area

64 Barnabas Road Suite 5 Newtown, CT 06470

Jeff Stahl

Mobil: 203-858-4136

Office: 203-426-7055

Fax: 203-426-2078

Thepondconnection.com



Fountains
Aerators
Grass Carp



Biologicals
Algae Controls
Colorants



Holliston Sand Company Inc.

P.O. Box 1168, Slatersville, Rhode Island, 02876

NATURAL SAND & STONE

Washed, Dried, Blended & Packaged
USGA Recommended Sands
Top Dressing, Rootzone
Bunker Mix & Pea Stone

www.hollistonsand.com

Bob Chalifour, CGCS (Ret)

Plant (401) 766-5010

Fax (401) 762-4976

Mobile (860) 908-7414

COMMERCIAL INDUSTRIAL SPECIALTY

CAGCS BOARD OF DIRECTORS
 President – Christian P. Mauro
 Vice President – Kimberly J. Heyl
 Secretary – Mark B. Mansur
 Treasurer – John Garcia
 Past President – Keith A. Angilly

COMMITTEE CHAIRPERSONS
 Education – Donald Beck
 Golf – Eric Morrison
 Membership – Sean Flynn
 Scholarship & Research
 Paul Bonini, CGCS
 Social & Welfare – Charles Babcock
 Government Relations
 Scott Ramsay, CGCS
 Commercial Rep to Board
 Michael Donahue
 Class C Rep to the Board
 Scott Lund



EarthWorks

The Soil Restoration Specialists
 An Affiliate of R.F. Morse & Son, Inc.

Carl Wallace
 Ph: 800-815-1113
 Cell: 860-558-6968
 Office Fax: 508-295-8187
 Home Fax: 860-571-9212
 PO Box 99 | Cranberry Hwy
 W. Wareham, MA 02576

Flexible Scheduling. Unparalleled Service.

Tight Budget?



Maximize your budget with Harrell's Fall Programs.

A little advance planning now can pay you big dividends in next year's budget.

Harrell's Turf Specialties is the trusted name for quality. Custom fertilizers, chemicals and expert advice to maintain Connecticut's Premier Golf Properties.

Trust our team of experts to deliver even more value with Harrell's early order fall program.

Jim Wierzbicki
 860.424.7250
jwierzbicki@harrells.com

Mike Dukette
 860-930-8888
mdukette@harrells.com

Joe Stahl
 203.209.6952
jstahl@harrells.com

POLYON

syngenta

BACKED
 by **BAYER**

Harrell's
 Harrell's Turf Specialty

harrells.com

PARTAC®
 GOLF COURSE
 TOP-DRESSINGS

America's Premium

HEAT TREATED Top-Dressings

800-247-2326

www.PARTAC.com

Fax 908-637-8421



AQUATROLS®

Bringing Water and Resource
 Saving Technologies To The
 Golf Industry for More
 Than 50 Years

Kevin P. Collins
 Northeast Territory Manager

37 Oneonta Road • Carmel, NY 10512

845-225-1761 Tel
 845-228-1728 Fax
 609-841-2077 Mobile

kevin.collins@aquatrols.com

CAGCS SEPTEMBER GOLF RESULTS

GILLETTE RIDGE GOLF CLUB

SEPTEMBER 4, 2007

1st Gross:

Jim Staszowski, Turf Products
Peter Bacon, CGCS, Wyantenuck CC

2nd Gross:

Ward Weischet, CGCS, Lesco
Eric Morrison, Shennecossett GC

1st Net:

Andy Drohen, Agrium Advanced Technologies
Erick Holm, CGCS, Hop Meadow CC

2nd Net:

Tom Watroba, Golf Irrigation Services, Inc.
John Fleming, Water Specialists, LLC

3rd Net:

John Kaminski, UCONN
Shawn Donovan, Turf Products

Kickers:

- Joe Malay, Hopbrook GC/Chris Kipp, Grassy Hill CC
- Rob Larson, Tom Irwin/Todd Farland
- John Wynne, Green Solutions, llc/Jeff Houde, Tom Irwin
- Kevin D'Amico, Westwoods GC/Charlie Luke
- Al Adaskaveg, Rockledge CC/Anthony Grosso,
Mohegan Golf, llc

Long Drive:

Mike Dukette, HTS

Closest to Pin #8: 8'5":

Matt Guilmette, Cedar Ridge GC

Long Putt #9:

Chris Guilmette, Willow Brook GC

Closest to Pin #11: 7'6":

Michael Dukette, HTS

Long Putt #17:

John Fleming, Water Specialists, llc

Closest to Line #18:

Bruce Morse, Norwich GC



OCTOBER MEETING RESULTS

WATERTOWN GOLF CLUB

OCTOBER 9, 2007

Superintendent/Assistant

Best Ball of 2 - 90% hdcp
Presidents Club/McLaughlin Trophy

SUPERINTENDENT/ASSISTANT

1st Gross: Keith Angilly / Walt Wozniak, Mill River CC

2nd Gross: Chris Mauro / Joe Caselli, Highfield GC

1st Net: Bruce Morse / Eric Kundahl, Norwich GC

2nd Net: John LaBrie / Gary Burns, Gillette Ridge GC

3rd Net: Paul Bonini / Doug Cooper, Watertown GC

BEST BALL OF 2 - 90% HDCP

1st Gross: Gordon Kaufman, Grigg Brothers Foliar Fertilizers
Heather Garvin, Chas. C. Hart Seed Company

2nd Gross: Jim Staszowski, Turf Products Corp.
John Wynne, Green Solutions

1st Net: Mark Fuller, Connecticut GC
Bob Welch, Connecticut GC

2nd Net: Erick Holm, Hop Meadow CC
John Kaminski, UCONN

3rd Net: Mark Osborn, Steven Willand, Inc.
Jim Stafstrom, Club Car, Inc.

Closest to line: Mike Pieri, Glastonbury Hills CC

Closest to the pin #4: John Motycka, Skungamaug River GC

Closest to the pin #15: Jim Staszowski, Turf Products Corp.

Long Putt #13: Pete Tyrell, The Care of Trees

Long Putt #6: Jim Staszowski, Turf Products Corp.

Long Drive: John Wynne, Green Solutions

Skins:

John Wynne, Green Solutions - #1

Sean Flynn, Great River GC - #3

John Wynne, Green Solutions - #4

Jim Stafstrom, Club Car - #8

Gordon Kaufman, Grigg Brothers Foliar Fertilizers #11

Brian Pope, Turf Products Corp. - #16

Kevin DeVaux, Stanley GC - #17

Kickers:

Mike Streckfus / Donna Ahern - Rolling Hills GC

William Stevens / Mike Pieri - Glastonbury Hills CC

Brian Pope, Turf Products Corp. / Gary DeVaux, Topstone GC

Est. 1975

GOLF CART ASPHALT PAVING

Low impact paving
FAHAN PAVING, LLC

Chris Fahan

Box 1181

Redding, CT 06875

(203) 938-3735

CT Lic# 00554746

See the difference with...

M & M HYDROSEEDING, LLC

Quality Work with a Personal Touch

Commercial • Residential • Municipal

Mike Mooney - Owner

20 Years in the Turf Industry

www.MMseeding.com

Free Consultation

Fully Insured

Free Estimates

860-376-8155

860-608-7924 (cell)

MONA TO LEAVE GCSAA

By Tim O'Neill, CGCS

On September 26, PGA Tour commissioner Tim Finchem announced that Steve Mona had accepted the newly-created Chief Executive Officer position of the World Golf Foundation. Mona has served as the CEO of the GCSAA since 1993. As CEO of the World Golf Foundation his responsibilities will include overall management of the Foundation, as well as overseeing the Foundation's industry relationships and ongoing global focus, plus it's newly created anti-doping administration office.

Regularly ranked amongst the world's most powerful and influential people in golf, Steve's talents and accomplishments are numerous and he was tapped by many organizations and groups in and out of the golf industry that include:

President of the International Association of Golf Administrators (1990), First Tee Advisory Committee (1998-present), World Golf Hall of Fame Advisory and Selection Board (1998-present), National Golf Foundation Board of Directors (1999-present), Golf 20:20 Executive Board (1999-present), National Minority Golf Foundation Board of Directors (2000-2001), Lawrence Cham-

ber of Commerce Board of Directors (2002-2004), American Society of Association Executives Board of Directors (2004-present), The Environmental Institute for Golf Board of Trustees (2003-present), LPGA Commissioner's Advisory Council (2006-present)

Steve is credited with numerous advancements within the GCSAA including:

- * The development of Member Standards
- * The evolution and maturation of the Environmental Institute for Golf and its Advisory Council currently chaired by Greg Norman and includes industry giants such as:

Herb Kohler, Pres. Kohler Co.
Pete Dye, Architect
Vijay Singh, Pro Golfer
Bob Wood, Pres. Nike Golf
David Pillsbury, Pres. of PGA Tour Properties
Jaime Ortiz Patino, Owner/Pres. Valderamma GC, Spain
Ken Melrose, Retired Chairman/Ceo of the Toro Company
Sergio Garcia, Pro Golfer
Tom Crow, Founder Cobra Golf

- * Revamping of the Educational programs.
- * Increasing the recognition of the profession and the superintendent.
- * The creation of Sponsor Programs.
- * Improving relations between GCSAA and other allied organizations as well as the industry as a whole.

- * The launch of the Golf Industry Show.
- * The strengthening of Chapters.
- * The development and mature of an association governance system currently in place.

No doubt the GCSAA Board has a difficult task ahead in finding a replacement for Steve. A search process is currently in process and a hiring firm has been identified for the assignment. At this time the goal is to have a new CEO introduced at the upcoming Golf Industry show in Orlando.

Golf course superintendent's, the association as well as the entire golf industry has benefited by the work that Steve has accomplished as the leader of GCSAA. His new position at the World Golf Foundation is a reflection of that hard work and the impact he has made. His appointment is also a positive reflection on GCSAA that our CEO would be considered for such a lofty position.

My congratulation's and best wishes go out to Steve and his wife Cyndi for all they have done for this profession. I look forward to seeing the great things that will undoubtedly develop at the World Golf Foundation.

steven WILLAND inc. Quality Turf Equipment

JACOBSEN

CUSHMAN

RYAN

STEINER

4 PRODUCTION DRIVE
BROOKFIELD, CT 06804
(203) 775-5757

800 CENTRAL STREET
NORTH SMITHFIELD, RI 02896
(401) 766-2124

TOLL FREE PARTS
866-435-1380



Mark Ericson
203-775-5757

George Corgan
914-213-3622

Brett Armstrong
203-240-1064



John Ferruccio
203-470-8107

Mark Osborn
203-470-1178

George Wise
508-274-7445

NEW INSIGHTS INTO BIOLOGY AND MANAGEMENT OF ANNUAL BLUEGRASS WEEVIL

Richard S. Cowles, Conn Agric Expt
Station, Valley Lab
Richard.cowles@po.state.ct.us

Over the past few years, annual bluegrass weevil (ABW) has become one of the most challenging insect pests on golf courses to manage. For approximately the previous ten years, superintendents concerned about this pest could be assured that a well-timed pyrethroid spray in the spring would prevent damage for the remainder of the season. The strategy was to apply a pyrethroid spray to the perimeter of fairways (or to the entire fairway and greens) at the time that forsythia reached the half-green half-gold stage of bloom. Weevils commencing their maturation feeding at that time would encounter a lethal residual dose of insecticide, and the life cycle would be interrupted. The situation has changed, so that this approach no longer works on many courses. I will explain the underlying causes for control failures and ways in which superintendents may be able to effectively respond to this challenge. I will also present superintendents with some unanswered questions for which a collaborative effort between yourselves and researchers will be necessary to address these issues.

As its name implies, annual bluegrass weevil (formerly called *Hyperodes*, but now assigned to the genus *Listronotus*) principally feeds as larvae on annual bluegrass, *Poa annua*. With about 3 generations per year, this weevil can build to astonishing populations of up to 800 larvae per square foot that can stress or kill annual bluegrass in greens and fairways. Where *Poa annua* is considered a weed as it invades other grasses, ABW feeding is beneficial, and the weevil is a welcome biological control agent. Unfortunately, older courses have extensive populations of *Poa annua* in greens and fairways, and so the *Poa* has to be maintained in order to provide an acceptable playing surface. Furthermore, as with most biology, the story is not quite so simple. There are reliable reports of ABW larvae feeding on bentgrass and other species of grass. New host races could evolve and become pests even where *Poa annua* is not present.

Recent data generated by myself and Darryl Ramoutar, a Ph.D. student working with Dr. Steven Alm at University of Rhode Island, have demonstrated that there are dramatic differences in the susceptibility of ABW populations found in CT to pyrethroid insecticides. Whereas the most susceptible weevils succumb when exposed to 0.8 ng (nanogram, one billionth of a gram) of the active ingredients of Talstar or Scimitar, weevils from courses that have experienced intensive prior use of

pyrethroids require a dosage 30 – 100-fold greater to achieve the same kill. These results point to the evolution of resistance to pesticides, a problem that you have probably already encountered through the use of fungicides. Repeatedly challenging a pest population with an effective pesticide selects for survivors with genetic traits that allow them to withstand that pesticide. Their offspring, in turn, will be more difficult to kill than the previous generation, which had many more susceptible individuals.

In the case of ABW, the selection with pyrethroids has left many courses with adult weevils that are now virtually impossible to kill with any pyrethroid. What has occurred is "cross-resistance," in which selection with one product allows the insect to withstand another, usually closely related insecticide. More disturbing were results suggesting that these weevils are also more difficult to kill with certain other insecticides, one of which (an experimental product) they had never previously been exposed to, and which had a different mode of action than the pyrethroids. Development of cross-resistance to unrelated chemistry is an unusual outcome. However, the reason for these results soon became apparent when I conducted laboratory tests with the adult weevils. The principal mechanism for resistance involves metabolism by cytochrome p450 enzymes, which have a general ability to

RAIN BIRD.

BISCO

Keeping you on course!



Sales

Jay Anderson - 203-494-5217
Andrew Langlois - 508-868-6996
Jeff Brown - 508-868-8495
Dan Fuller - 508-789-2323

Service

Chris Russo - 203-494-2845
Greg Hennessey - 978-877-0875

www.biscoirrigation.com

detoxify many chemicals. The result is that the insecticide active ingredient no longer has the chance to travel from the cuticle (the outside skeleton of the insect) to the nervous system, which is its target. Thus, the intensive selection with pyrethroids has jeopardized our ability to kill these weevils with virtually any insecticide.

Not all hope is lost, though, for chemical control. The specific mechanism for resistance I have found in ABW can be counteracted with a synergist that blocks the cytochrome p450 enzymes. A synergist is a chemical that is not itself toxic, but enhances the toxicity of something else. This chemical, piperonyl butoxide (PB), is commonly found in household insecticide sprays containing shorter-residual pyrethroids, like resmethrin. When ABW adults are exposed to PB, their susceptibility to pyrethroids is restored. Two PB products are registered in CT, Prentox PBO-8 (Prentiss Chemical) and Exponent (MGK Co.) for mixing with insecticides. The Exponent product has a very clearly written label, whereas the Prentox PBO-8 product is difficult to interpret for use on golf courses. The labels for both products suggest mixing the product so that a certain ratio (1:1 to 10:1 of PB : insecticide active ingredient) is achieved. Calculating these ratios is unnecessary; field tests with agricultural pests indicate that using 4 – 8 fluid ounces per acre of either product will block the insects' detoxification enzyme and will give maximum potential benefit. A third product, Kicker (Bayer) is already labeled for use on turf against ABW and includes pyrethrin along with the PB. There has been no laboratory or field trial with Kicker to see how it will perform relative to the other PB-containing products. I can anticipate that not only pyrethroids, but other insecticides deactivated by the cytochrome p450 system, will benefit when combined with PB.

Humans also have cytochrome p450 enzymes, variously found in the small intestines and in the liver. Several drugs have precautions against consuming grapefruit, because it contains chemicals that block the p450 enzymes in the small intestines, thereby either inactivating or making the pharmaceuticals more toxic. Exposure to PB should be expected to interfere with the normal function of these enzymes, which then could affect metabolism. Therefore, even though PB is relatively non-toxic to humans, applicators should follow label directions and avoid contact with the spray. Good chemical hygiene by golfers could be important as well. For example, the practice of golfers licking the golf ball to clean it could theoretically cause unfortunate drug interactions if PB is present.

However, the continued use of pyrethroids, even when combined with PB, should be approached with caution. Like the adage "there is more than one way to skin the cat," there are also more mechanisms that could allow ABW to circumvent our insecticides. The most important mechanism (besides metabolic degradation, which is currently taking place) is target site modification. Pyrethroids bind to sodium channels of nerves, which is their "target site". This can be pictured as a key (the pyrethroid molecule) fitting into a lock (the channel). If the shape of the lock changes so that the key no longer fits, then the insect gains virtually absolute resistance to that class of insecticide. I anticipate that a few years of intensive selection with pyrethroid + PB combinations could result in a target site modification form of resistance occurring, which would make pyrethroids ineffective against ABW adults.

Another approach to managing resistance is to use insecticides in combinations with each other. A well-known principle is that insecticides affecting different functions of nerves will synergize each other. Essentially, it is like hooking up two amplifiers in series: each poison causes the nerves to fire more often, and so the combination of two poisons will multiply their effects. Two companies are introducing insecticides containing a pyrethroid (bifenthrin) in combination with a neonicotinoid. Aloft (Arysta) combines clothianidin with bifenthrin, while Allectus (Bayer) combines imidacloprid with bifenthrin. Neither clothianidin nor imidacloprid by themselves have good activity against ABW; however, they do work together with bifenthrin to provide better effect. I would caution superintendents to combine either of these products with PB if they have previously detected or suspect pyrethroid resistance. There is no reason why superintendents shouldn't be able to tank mix individual insecticides in synergistic combinations (e.g., Arena plus Talstar, vs. Aloft) for the purpose of combating resistance; this will be an active area of my research in 2008. Especially intriguing will be combinations that lack pyrethroids.

The basis for intelligent decisions for pest management is accurate information. Each superintendent can easily determine whether an ABW population is susceptible or resistant to pyrethroids with a test kit, which I freely provide (contact me at my e-mail address). The test kit will also determine whether the p450 enzyme system is responsible for the resistance. All that is required to run the test is about 24 or more adult weevils, which can be obtained with a soapy irritant drench or can be picked directly off the turf. Weevils are placed

into Petri dishes in a cool location, and the number and pattern of weevils that die determine the results.

Probably the most effective way to counteract insecticide resistance is to rely more on biological control and less on insecticides. Predators and pathogens make the perfect countermeasure to insecticide resistance because they will kill the survivors of insecticide treatments. The problem is that pyrethroids are more toxic to predators and parasitic insects than to weevils. To make better use of predators, we need to find an insecticide that selectively targets the weevils. Environmentally less disruptive ingredients, such as spinosad (Conserve SC), may have the right characteristics and, therefore, will probably gain in importance for managing ABW.

Another approach will be to target treatments to only those areas where damage is observed, rather than to kill the adults. This may reduce the total area treated and the proportion of the weevil population being selected with insecticides. Currently, Conserve and Dylox are options for targeting ABW larvae. Ironically, pyrethroids also appear to be effective against ABW larvae, and so perhaps this class of insecticide will retain its usefulness as a larvicide, rather than for killing the adults.

Here are some unanswered questions that will require the concerted efforts of researchers studying resistant weevils (Pat Vittum from UMass, Darryl Ramoutar and Steve Alm from URI, and myself) and superintendents to address:

1. Will combinations of pyrethroids and PB effectively counteract pyrethroid resistance?
2. Are perimeter sprays (with synergists) adequate for managing ABW?
3. Will PB synergize other insecticides, like Conserve?
4. Can pyrethroids be relied upon as larvicides for ABW?
5. Can we determine the underlying causes for variation in sensitivity to pyrethroids?

Please let me know if you are willing to allow us to conduct research trials at your course, so that we can provide better information to all superintendents for managing ABW.

A-OK Turf Equipment

Articulator Dealer, Garden, TyCrop, Blec
Wiedenmann, Therrien
Coventry, RI 02816/Michael Cornicelli
(401) 826-2584 - Fax (401) 826-3749

Allens Seed

Seed, Fertilizer, Turf Supplies
Exeter, RI 02822
Al LaPrise
(401) 741-4444 - (800) 527-3898

Anderson Turf Irrigation, Inc.

5 Crank Road
Plainville, CT 06062
(860) 747-9911
Jesse J. Anderson, Jr.

Aquatrols Corp. of America

Innovative Products for Effective
Resource Management
Kevin P. Collins, N.E. Territory Mgr.
(609) 841-2077

A. T. Sales Associates

Premium Sod for Golf Courses
Lincoln, RI 02865
Owen J. Regan
(401) 465-8066 - cell

Bartlett Tree Experts

66 Wooster Heights
Danbury, CT 06810
Matt Flanagan, Arborist / Rep.
(203) 744-1400 x 17

Bayer Environmental Science

Dave Sylvester (860) 828-8905
Servicing & Fairfield County
Serving Eastern Connecticut

BISCO

Irrigation Supply
60 Stergis Avenue, Dedham MA 02026
(800) 225-8006
J. Anderson, III

C.R.I.S., LLC

Golf Course Irrigation
P.O. Box 6194
Wolcott, CT 06716
Chris Carney (203) 879-2362

The Cardinals, Inc.

Complete Distributor of Golf Course
Accessories & Turf Maintenance Supplies
John Callahan
(860) 673-3699

Championship Turf Services

Precision Laser Leveling
Custom Aerification - Overseeding
Sisis Turf Equipment
Michael Flowers (800) 562-5860

DGM Systems

Specialty Products Distributor For Golf & Sports Turf
Servicing Your Needs www.dgmsystems.com
Office (401) 647-0550 or (877) DGM Products
Manny (401) 524-8999 - David (401) 742-1177

D & S - Floratine

The Best Value for
Plant and Soil Strength
Dave Basconi
(860) 349-1291

Dryject N.E./TurfPounders

Aerification & Drainage Services
Kevin Collins (609) 841-2077 -cell
Home Office: (914) 672-6029
Service CT, NY & Western MA

Earth Works, Inc.

Custom Deep Aerification Service
West Wareham, MA 02576
Carl Wallace
(800) 815-1113

Egypt Farms, Inc.

Sterilized Topdressing, Greensmix
Bagged Topdressing & Divot Mix
Dean Snyder
(800) 899-7645 FAX (410) 335-0164

Glenmore Landscape Service

Glenn S. Moore
P.O. Box 890
South Salem, NY 10590
(914) 533-5554

Greenacres Company

Dave Pijenburg
75 Codfish Hill Rd.
Bethel, CT 06801
(203) 748-0558

Harrell's Turf Specialty (HTS)

Jim Wierzbicki (860) 424-7250
Joe Stahl (203) 209-6951
Mike Dukette (860) 930-8888
Customer Service (800) 228-6656

The Chas C. Hart Seed Co.

Wethersfield, CT - Roy Sibley,
P. Bednarczyk, Heather Garvin
(860) 529-2537 or (800) 326-4278
Quality Since 1892

James Carriere & Son, Inc.

Bill Carriere (914) 937-2136
Trap Sand Partac Top Dressing
Const Mixes
Decorative Stone

Leggette, Brashears & Graham, Inc.

Professional Ground-Water and
Environmental Engineering Services
Office in Shelton & Farmington
Rob Good (860) 678-0404

LESCO, Inc.

Cleveland, Ohio 44114-1882
(800) 321-5325
(856) 692-8217

Metro Turf Specialists

Customers, Our TOP Priority for 40 years
Dennis Petruzzelli, CGCS (203) 948-4941
Shawn O'Sullivan (516) 216-0731
Danbury office (203) 748-Golf (4653)

Partac Golf Course Top-Dressing

(800) 247-2326 Fax (908) 637-8421
Bill Carriere (914) 937-2136
Joe Bidwell (860) 651-8555
Jim Wierzbicki (860) 424-7250

R. F. Morse & Sons, Inc.

ParEx Fertilizer - Power Equipment West Wareham,
MA 02576
Carl Wallace (800) 815-1113

Shawnmark Industries, Inc.

Specialty Products & Service
Warwick, RI 02888
Matt Howland (24 hours a day)
(401) 295-1673 - www.shawnmark.com

Sodco, Inc.

P.O. Box 2
Slocum, RI 02877
Sean Moran
(800) 341-6900 - sodco.net

Steven Willand, Inc.

4 Production Drive
Brookfield, CT 06804
Mark Osborn - Brett Armstrong
(203) 775-5757

Syngenta Professional Products

Fairfield County - Dennis DeSanctis
(732) 580-5514 - email- dennis.desanctis@syngenta.com
All other CT Counties - Melissa Gugliotti
(860) 221-5712 - melissa.gugliotti@syngenta.com

Tee & Green Sod

5/32" bentgrass, 1/2" bluegrass sod
rough, tee & fairway sod; installation
Jon Burgess (888) 638-4657
Dave Wallace (401) 641-0306

Terre Co.

206 Delawanne Ave. Clifton NJ
(973) 473-3393 FAX (973) 473-4402
Byron Johnson
Home (203) 748-5069

Tom Irwin, Inc.

Turf Management Products
Knowledge & Experience You Can Trust
Rob Larson (508) 789-0059
Jeff Houde (203) 731-1776 office (800) 582-5959

Tuckahoe Turf Farms, Inc.

www.tuckahoeturf.com
Golf Course Turfgrass
Skip Deubel (860) 306-8883
(800) 243-7582

Turf Products Corporation

157 Moody Rd., P.O. Box 1200
Enfield, CT 06083
John Ferry - Mark Loper
(800) 243-4355

The Turf & Pond Connection

Joe Stahl (203) 209-6951
Jeff Stahl (203) 858-4136
Scott Tretera (914) 262-8638
www.theturfconnect.com

Westchester Turf Supply, Inc.

"Servicing Golf Courses for over 30 years"
Bob Lippman (914) 447-6257
Dave Lippman (914) 447-5192
Office (845) 621-5067 - westturf@comcast.net