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**THRU THE GREEN**  
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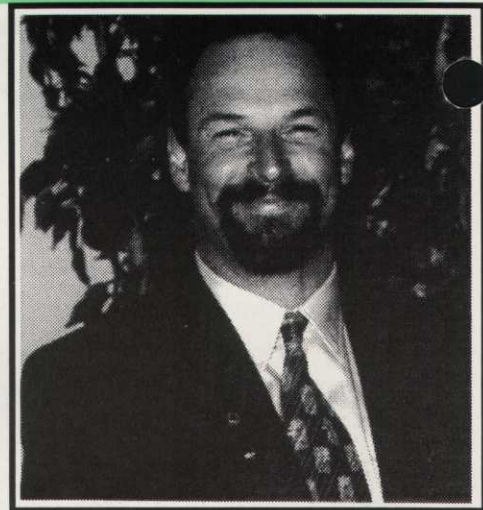
## THRU THE GREEN

### From The President

The annual meeting has come and gone and the transition to the latest edition of the Board of Directors is complete. Congratulations to Terry Grasso, Ken Williams, CGCS and Craig Kilcoyne for their commitment to our Association. The remaining one year Director term vacated by Forrest Arthur has been appointed to Mike Nunemacher. Mike will continue to chair the Membership Committee. The remaining committee assignments will be published after our first board meeting. The Board is very enthusiastic about the coming year. I know they will be working hard to find members willing to give of their time to help with our direction and programs.

Involvement is a word that will be used over and over this year. It is nothing new, it does not reappear with El Niño, but it is the cornerstone to any successful volunteer effort. Our Association has no paid employees. We contract with one company for most of our business operation and the rest of the work is done by members that have stepped forward to be part of the solutions. In 65 years we have initiated some wonderful programs such as the scholarship and research programs. They may not have been original ideas but someone started them within this group. The anniversary meeting at Fort Ord last August touched on how much we remain creatures of habit. We still complain about meeting prices and golf pairings yet we continue to want more and we maintain a very low average of participation.

With the help of this Board, I hope to generate more enthusiasm about what we do as an organization. Our 600 members each have their own sources of information, perspectives and experiences. Our industry is very close knit, we should be working together in some way to make our industry and profession better for everyone. The



### Dave Davies, CGCS

effort does not have to be monumental but a small effort by everyone will go a long way. We are faced with very real problems in this industry. Pesticide regulation, emission controls, noise regulations, customer expectation and public perception continue to influence everything we do. One united voice from this group will be more easily heard than a quiet side-bar from a few individuals.

Thank you, Craig Bestrom, from the San Jose Mercury News, for your column in the Golf Extra on April 9. Craig was able to join us at Castlewood and spoke with a number of the attendees on the latest industry trends. He is always looking for information for his weekly column. Maintenance issues, human interest stories from your facility, anyone have a local qualifier pursuing a spot in the Open?

Enough preaching for this month. I have 11 more opportunities. I am committed to finding the directions and solutions that this membership wants. Enjoy the drier weather as we work toward summer and remember to keep that sense of humor . . . . it's critical.

### Did You Know

**Gasoline-powered leaf blowers** would be regulated by the State of California under S.B. 1651. All blowers sold and those in use for commercial purposes after January 1, 2000, could not exceed set maximum noise levels. The bill would establish a trade-in program for blowers that do not meeting the state standards. Violation of the law would result in fines ranging from \$100 to \$500 for each infraction.

## Office Notes

By Barbara Mikel

Maybe by the time this newsletter is out to the membership, some golf has begun to be played in the Norcal region. I can't believe this year! Snow on April 13 at the office?

Hope you have taken the opportunity during this dismal weather to get on the Internet and see the CGCS web site ([www.gcsaa.org/cgcsa](http://www.gcsaa.org/cgcsa)). Bob Tillema, CGCS and all involved are to be congratulated on a "job well" done. Next, you will hopefully be seeing that the various chapter information built into the site. I was impressed with the "links" available from that page. I am sure the Board is open to suggestions regarding info you would like to see there. Why not give a call to let us know what you think should go on the page. Membership applications, meeting schedules, reservations, job notices equipment for sale wants and discards? The possibilities are limitless.

Since we have members coming into the Association all year, it is a good time to review meeting reservations, registration, and payment. We mail meeting notices and reservation forms to you so they can be processed before the meeting providing receipts and depositing funds for meeting expenses. On the reservation form is a courtesy listing for "Confirmed Foursome." We ask each member to provide a reservation for the meeting including payment for himself and guest if any. We also ask the "confirmed foursome" box be completed with index and name of players you have "confirmed" are coming to the meeting. It gets extremely time consuming for me and the golf chairman to try to decipher people placed in the foursome box if we don't have the reservation for that person. Please do not use that box for "I want to play with Joe if he is coming". Call him and make sure that you are all going to play or leave the foursome area blank. The golf Chairman will pair you if you do not fill in the section.

## Supporter Listing

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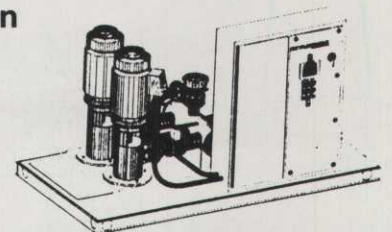
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## Membership Surpasses The 600 Mark

Membership Chairman, Mike Nunemacher reported the current GCSANC membership has eclipsed 600, reportedly the largest in the country. In spite of the growing number of members, Mike took the opportunity to publicly convey his concern over a lack of member involvement. He pointed out the attendance at the annual meeting as evidence, noting a mere 38 voting members present.

## Membership as of 1/98

Class A	169	Retired Voting	10
Class A Life	22	Retired Not Voting	14
Class B	34	A Inactive	1
Class C	83	Honorary	5
Associate	27	Student	14
Affiliate	186	Advisory/Mailing	30

## Students Receive Awards

Five Turfgrass students were recognized as recipients of GCSANC scholarships. Wayne Lindelof, CGCS, made the presentations to: Lindsey James, presently attending Cal Poly SLO. Lindsey has worked at Mariner's Point Golf Course and Daniel Warne, employed with Pebble Beach Co. and current student in the Rutgers program. Not in attendance were Lester Morales, Rutgers, Robert Fry, Cal Poly SLO and Bobby Buelli Cal Poly SLO.



**Newly Elected 1998-1999 Board of Directors.** Pictured left to right: Bob Costa, CGCS, Director; David Davies, CGCS, President; Mike Nunemacher, Director; Craig Kilcoyne, Affiliate Representative; Blake Swint, Past President; Jim Karrick, Affiliate Representative; Gary Carls, CGCS, Vice President; Kenneth Williams, CGCS, Director; Terry Grasso, Director. Not pictured Forrest Arthur, Secretary Treasurer



**1998 Scholarship Recipients.** Pictured left to right: Daniel S. Warne, Rutgers Turf Program; Lindsey James, California Polytechnic, SLO; David Davies, CGCS, President.

## Scholarship Recipients

Lester Morales	Rutgers Turf Program	\$1,250.00
Daniel S. Warne	Rutgers Turf Program	\$ 750.00
Lindsey James	California Polytechnic SLO	\$1,000.00
Robert Fry	California Polytechnic SLO	\$1,000.00
Bobby Buelli	California Polytechnic SLO	\$1,000.00

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- ★ Repairs the soil rather than impacting the water
- ★ Similar to aeration but on a microscopic level
- ★ Is driven down to compacted or layered area by water
- ★ Creates pore spaces and agglomerates clay and organic fines

## HOW DO YOU USE IT?

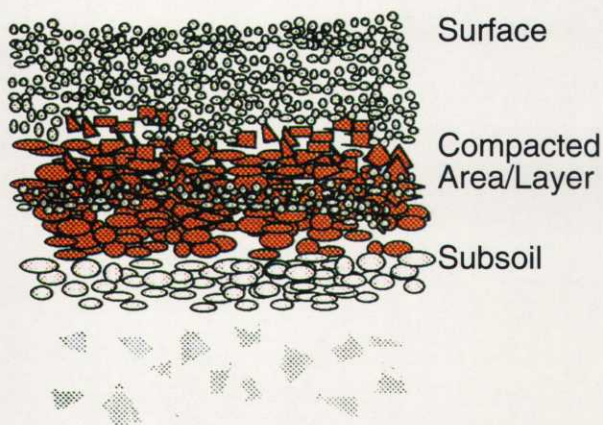
- ★ Apply Invigorate™ Soil Conditioner in a spray solution of 1 gallon Invigorate™ in 50 gallons of water per acre
- ★ Product may be applied almost any time, but ideal spraying conditions are:
  - Right after a mechanical aeration (core, slit, spike)
  - When the soil moisture is below field capacity but above the wilt point
  - Followed quickly by irrigation or watering in of sprayed areas
- ★ For very compacted soils two treatments, 14 days apart are recommended
- ★ Repeat application as symptoms appear or as a routine treatment in the Spring and Fall
- ★ Product will begin working immediately and results will be seen in turf quality and overall soil condition in four to six weeks
- ★ Do not apply when the ground is frozen or saturated
- ★ Do not allow mixed solution to sit overnight - spray as soon as possible after mixing



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# PROBLEM-POOR DRAINAGE/SOIL STRUCTURE

## UNTREATED



### **SYMPTOMS:**

- ★ Standing water / Mushy surface
- ★ Slow draining water after rain or irrigation
- ★ Thinning surface or bare ground
- ★ Hard surface "feel"

### **CAUSES:**

- ★ Compaction of the soil - no areas for root growth and no macropores for the water to move through the soil
  - Foot and equipment traffic
- ★ Breakdown of larger particles into fines provides layering of clay/silt and organic fines in the soil - perched water tables, black layer, etc.
  - Loss of macropores available for holding air and moving water through the soil
  - Buildup of clay, silt and organic fines

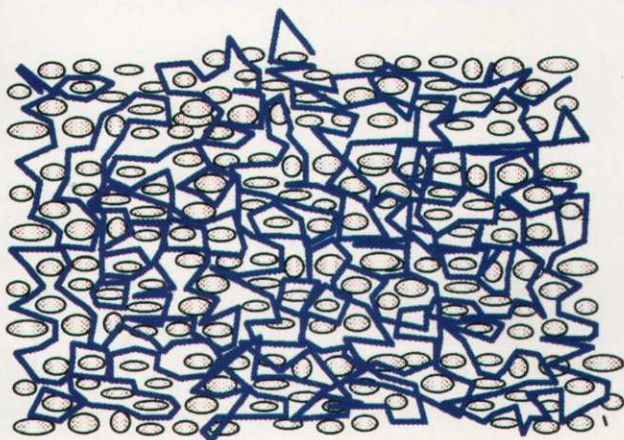


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### **RESULTS:**

- ★ Agglomeration of fines creates new macropores
- ★ Breaking into and through layers allows water flow to increase
- ★ Downward movement of water draws air into the soil restoring balance of water to air
- ★ Brings aerobic condition to anaerobic layers
- ★ Healthy environment for turf growth

## Naumann's NorCal News

**David Peterson** is the new Superintendent at Adobe Creek GC in Petaluma. He is replacing **Pete Dempsey** who is now a Del Rio CC in Modesto . . . **Mike Higuera** has left Mountain Shadows GC in Rohnert Park to become the Superintendent again at Seascape GC in Aptos. Both facilities are run by American Golf Corp. Replacing Mike at Mountain Shadows is **Tom Brower**. Tom was a Superintendent for American Golf in Washington prior to his move here . . . Rooster Run GC, in Petaluma, is opening this month and Superintendent **David Saly** is running around like a chicken to get things ready. Rooster Run is a new golf course designed by Fred Bliss . . . **Tony Schuster**, who left Carmel Valley Ranch Golf Resort a few months ago, is the Tournament Coordinator for the Sprint International Golf Tournament at Castle Pines in Colorado . . . **Stephen Leas** is the new Superintendent at San Geronimo Golf Course in San Geronimo. Stephen is replacing **Brett Wolf** who has moved to Oklahoma. Stephen was the assistant prior to his promotion.

## Thank You GCSANC

It was a great honor to receive the GCSANC 1997 Superintendent of the Year Award at the April 6th meeting at Castlewood C C. Needless to say, the award came as a great shock to me and I was truly honored to be recognized by my peers. I feel I need to acknowledge some people I may not have properly recognized on that day.

Thank you to the GCSANC and its members for allowing me the opportunity to represent you. Thank you to my two GMs, Bob McGrath at San Jose Municipal GC and Jim McGrath at Santa Teresa Golf Club, for allowing me the opportunity to commit the time necessary to be involved with the GCSANC Board of Directors. Thank you to Dave Noel, my assistant at Santa Teresa, for your hard work and dedication. Thanks to the crews at Santa Teresa and San Jose Muni. A very special thanks to Joe Vallaire, Superintendent at San Jose Municipal GC for your hard work and dedication since 1992. Your assistance as my assistant at San Jose and now during your tenure as Superintendent have allowed me the opportunity to be involved in the many activities with GCSANC and GCSAA that made an award such as this possible.

Once again, let me state what an honor it was to receive this award and I look forward to many continued years of service on behalf of the GCSANC and its members.

Gary Carls, CGCS

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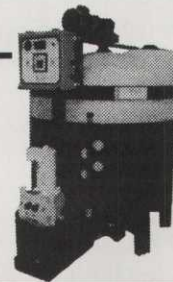
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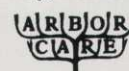
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## Adventures in Earthworm Control

By: Pat Gross, Director, Southwest Region, USGA Green Section

I recently returned from the USGA Regional Green Section Conference in Portland, Oregon where Dr. Tom Cook of Oregon State University gave an excellent presentation on the biology and history of control of earthworms. I thought this was an especially interesting topic for the Southwest due to the persistent rain and heavy earthworm activity in recent months. The following is a summary of the information he presented during the conference.

Earthworms are beneficial soil invertebrates that serve several important functions in the soil/turfgrass system:

- Earthworms reduce soil acidity by bringing soil from deep within the soil profile to mix with the more acidic thatch and soil layers near the surface.
- Improvement of soil structure.
- Improvement of the soil infiltration rate.
- Initiate thatch breakdown by mixing soil within the thatch layer.

Dr. Cook related some interesting facts concerning the biology and life cycle of earthworms. Earthworms have a life span of 1.5 to 9 years. They reach sexual maturity in less than one year and obtain their maximum size within three years. Earthworm cocoons hatch in the spring, and juvenile earthworms generally dominate most soils. Earthworms will make permanent burrows, up to six feet deep, unless the soil is cultivated or disturbed in some manner. There are many different species of earthworms, but the following three species dominate in most turfgrass soils:

*Apporectodea tonga*, *A. caliginosa*, and *lumbricus terrestris* (the most common species).

Although earthworms provide many

benefits, the main problem encountered in golf turf is heavy deposits of earthworm casts. The casts are deposited on the surface of the turf, and mowing and other operations spread the casts over the surface of the turf, similar to spreading peanut butter on the grass. The glue-like casts shade and suffocate the turf causing thinning and bare areas. Earthworm activity and cast deposits are favored by the following conditions:

- Soil pH greater than 5.0
- Fine-textured soil.
- Vigorous grass growth.
- Earthworms actually have feeding preferences, and prefer perennial ryegrass to other turf species.
- Regular irrigation and adequate soil moisture.
- Adequate soil nitrogen.
- Modest amounts of thatch.

The presence of earthworms is a sign of a healthy soil, and earthworms are commonly used as "poster children" for the environmental movement. Given this fact, several scientists have studied the effects of fertilizers and pesticides on earthworm activity in turfgrass soils. These studies indicated that most commonly used herbicides had little or no effect on earthworm populations, however, the fungicide benomyl and the insecticides ethoprop, carbaryl, fonofos, and bendiocarb at labeled rates reduced earthworm populations by 60% to 99%. Dr. Cook also summarized the history of earthworm control from WWII to the present noting the use of such products as bandane, calcium arsenate, potassium permanganate, chlordane, and the mercury fungicides, which are no longer allowed by law.

It is important to note that since 1980, there are **NO** registered chemicals for the control of earthworms. Dr. Cook discussed various cultural control practices that helped discourage earthworm activity. These included:

- Earthworms are less of a problem on sandy soils, since earthworms do not like to ingest sand. After several years of fairway topdressing, earthworm activity appears to have diminished in several locations.
- Maintain moderate to low nitrogen levels.
- Increase soil acidity by spoon feeding with ammonium sulfate or other sulfur containing fertilizers.
- Try to remove turfgrass clippings to reduce the organic matter source for worm feeding.

Dr. Cook just completed the first year of a multi-year project to study the biology and cultural control programs to reduce earthworm activity. The goal of the project is to learn more about worms and the various species that inhabit turfgrass soils and develop a set of integrated cultural control programs. One of the more interesting control methods being studied is the use of hot mustard drenches to discourage earthworm activity. Currently, the mustard causes phytotoxicity on some grass species, and more work must be done on proper rates and timing. This research is being supported by the Pacific Northwest Golf Association, which includes the support of the Oregon and Washington Superintendents Associations. Field research is currently being conducted on four golf courses in Washington and Oregon. While deliberately killing earthworms is illegal and politically incorrect, it is hoped that the research at Oregon State University will help reduce the problems associated with excessive earthworm casting on turf during the winter season.

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## Holmquist Lindelof End Directors Term

Affiliate Representative, John Holmquist and Director Wayne Lindelof, CGCS were paid tribute as they closed out their respective terms on the GCSANC Board. Lindelof, who served for three years, "was a quiet but productive voice," said outgoing President, Blake Swint. Swint paid tribute to Lindelof's contributions as the Chair of the Membership and Scholarship Committees. One of GCSANC's most respected members, Cliff Wagoner, CGCS, spoke highly of Wayne as well, and publicly commended him for his service.

The dapper and ever professional Holmquist, was instrumental in guiding one of the most successful Scholarship Tournaments last year. "His dedication and commitment earned him the respect of his fellow board members," said Bob Costa, CGCS. I had the pleasure of working closely with John in the development of the sponsorship program, and was pleased when he accepted an invitation to continue his service and participate on this years Education Committee. John's a real pro, he and Wayne will both be missed," said Costa.

### Quick Quote

Even a fool knows  
that you can't touch the stars,  
but it doesn't stop  
a wise man from trying.

— Harry Anderson —

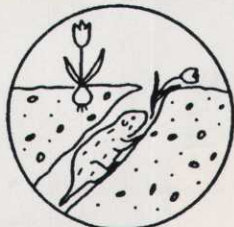


*Pete Bibber (left) receives Distinguished Service Award from Cliff Wagoner.*



*Wayne Lindelof, CGCS, (left) is recognized for Board Service. Gary Carls (right) receives Superintendent of the Year.*

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