

THRU THE GREEN

EDITOR

Brian Bagley

PUBLISHER

DJ King
King & Company
7150 Shoreline Dr., #3215
San Diego, CA 92122
619/558-4769
FAX 619/558-7387

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550 Main St., Ste G
PO Box 3360
Diamond Springs, CA 95619
PHONE: 916/626-0931
FAX: 916/626-5132

Thru the Green

Published monthly by the
Golf Course Superinten-
dent's Association of
Northern California.

Writing Contest
Winner Announced

Joe Rodriguez of Rossmoor Golf Course was recently selected the winner of the *Thru the Green* Article award for 1993. Introduced in Sep-

tember, the \$250 cash award was designed as an incentive to get member-written articles.

Joe's very interesting and informative article entitled "No Putting on the Greens" was about the difference he

encountered maintaining greens for lawn bowling. It was published in the October issue.

Will you be the next \$250 winner? Be sure to submit an article to *Thru the Green* this year.

PRESIDENT'S MESSAGE

As governmental regulations become more and more stringent, the golf course superintendent may be put between a rock and a hard place.

An example is hazardous waste removal. On one side is the club which may not be very excited about paying the expensive fees to have hazardous wastes removed in accordance with various governmental regulations.

On the other side are the many government agencies who are increasingly prosecuting violators.

The following happened to a fellow golf course superintendent. Last December, the District Attorney's office filed a complaint against the superintendent who they allege "misled county health inspectors about the previous location and contents of an underground storage tank."

According to the Deputy District Attorney, who is handling the prosecution of the case, law enforcement authorities were notified of the tank's existence by an "undisclosed source." County health inspectors investigated the club for possible hazardous waste violations in February, 1993.

A county hazardous materials specialist who visited the site several times said the investigators located the crushed and emptied tank in a non-hazardous waste dumpster on club property.

Inspectors later discovered that the tank had been dug up, and the resulting hole filled with soil and covered with a parked truck.

The superintendent was charged with a misdemeanor violation of California Health and Safety Code Section 25195(a) for his alleged role in interfering with the work of Department of Toxic Substances Control and law enforcement representatives.

According to the Deputy District Attorney, the superintendent said that the tank was above ground and contained no (hazardous waste fuel), when, in fact, it was an underground tank that was leaking (hazardous waste fuel). The Deputy District Attorney also said he filed the criminal charge against the superintendent to "send a message that county inspectors cannot be lied to."

The lessons to be learned from this incident are that the golf course superintendent has to:

1. Take responsibility for his actions.
2. Know the laws and regulations
3. Document all communications between himself and club officials, in writing
4. Be careful -- when in doubt, you may want to actually talk with government officials before you do something that could get you, the golf course superintendent, in big trouble later.

Before the big spring rush, spend some time reading up on all those new regulations coming your way, as well as the old ones you may not be aware of.

I think the most important point to remember is *not to let yourself be put between governmental regulations and your club*. It just isn't worth the risk.

"The times they are a changin'"

Bob Dylan, 1963

Respectfully submitted by
Brian Bagley
President

Portions of this article excerpted from the *San Jose Post Record*

by Carey Krefft
NSTC/Farmtec

In last month's article, we left off describing the **primary** treatment phase: the separation of large, heavy materials (sand & grit) that settles naturally in a wash pad sump.

We now move on to what's considered the **secondary** treatment phase. If your goal is to treat in order to meet sanitary discharge standards or recycle the stuff, this is the phase for you.

There are as many treatment methods as there are days in a year. Here are a few of the main methods used in the secondary treatment phase:

- ◆ **COALESCING:** gathering oil droplets
- ◆ **FILTRATION:** particle segregation, element type, earth media type
- ◆ **PRECIPITATION:** chemical assisted coagulation, flocculation, and settling
- ◆ **OZONE (O³):** disinfection, gas injection
- ◆ **CHLORINE:** disinfection, addition to ≤5 ppm

Most systems today offer several concurrent technologies all-in-one. In this issue we will cover the first three: Coalescing, Filtration and

Precipitation.

Coalescing

This process is designed to coalesce (gather) the oil droplets that are present in a wastewater. When oil of any quantity is in agitated wastewater, the droplets sizes are anywhere from microscopic to very visible (0.5-1000 microns). Detergent can

ing them to grow large. Once they have grown to sufficient size, they will break free and float to the surface where they will be skimmed off.

Filtration Method

Filtration systems accomplish "particle segregation." That is, they separate particles based on the size in relation to the filter media.

filtration systems will miss these important pollutants.

Filter systems are a practice "pre-treatment" device that contribute to the secondary treatment phase. They prepare a wastewater stream for further processing very nicely. If filtration is the MAIN treatment method, it will produce "grey water," and may not remove all the pollutants you are after, leaving spots when dry.

When considering a filter system, one should consider the filter replacement frequency, the element cost, and spent element disposal costs. Every wastewater treatment/recycling system creates some form of waste that must be disposed of. Filter element crushing may also be required.

Precipitation

This is an interesting chemistry-based technology that was developed in the 1950s. Many improvements in the technology have been made since.

The precipitation method is based on the formation of precipitates of organic matter, suspended solids, and toxic metals, based on the pH of the solution. Generally speak-

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Environmental Compliance

Wastewater Treatment Secondary Phase

greatly contribute to this problem.

Coalescing is a mechanical process that involves streaming an oil-bearing wastewater over a series of plastic media. There are a variety of media types used today: multiple parallel plates, beads, molded mazes, etc. The plastic can attract the oil droplets, forc-

The typical filter systems are capable of particle separation in the range of 1-5 microns. They only trap particles larger than the filter element opening size. Any pollutants that are soluble, or really small, pass through. Toxic metals, when in water, exist in the sub-micron and the soluble form. Therefore,

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FEBRUARY SPEAKERS*Continued from page 1*

Joe consults throughout the U.S. and internationally. He is currently consulting for the largest sod farm in America: Adrian Farms of S. Dakota. In Mexico, with the help of President Salinas, he recently oversaw development of eight new fertilizer plants destined to provide fertilizer with biologicals to the many crops of Mexico. He also works with Nobel Prize winner Dr. Norman Borlog in Obregon, Mexico, at the Ciano Project, the largest wheat breeding facility in the world.

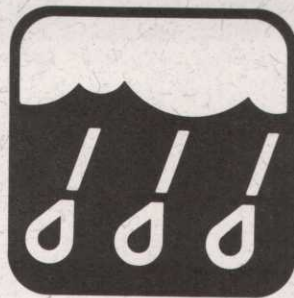
A pioneer in prescription fertilization and fertilizer injection systems, he developed the custom formula BioTurf for Greens and BioTurf for Fairways for Terra Verde and is the formulator for all of Terra Verde's golf course customers.

Lisa Maule started her company, Terra Verde, knowing that turfgrass horticulture was looking for new methods that were more environmentally conscious.

A graduate of the school of diverse interests, she has operated her own marketing, advertising agency, worked with the SFSU Department of

Business to start an internship program there, and spoken frequently on marketing topics at U.C. Berkeley. After ten years in advertising, when she could no longer hype software, extol commercial real estate, and promote twenty dollar bottles of chardonnay, she decided that a change was due.

With a lifetime of interest in horticulture, she began selling turf and wildflower seed. Two years later, and fully dedicated to products that are safe for water, people and turfgrass, she installs fertigation, the practice of liquid injection fertilization for turf. To this end, she distributes a full line of custom formulated liquid fertilizers, injection pumps, soil amendments, seed and sod. She is exclusive distributor of North American Micros turfgrass fertilizer formulations.

**WELCOME TO THE GREEN**

Welcome to the following new GCSANC members:

New Associates - 30 day wait
Patrick Burgess
Asst. Superintendent
Spyglass Hill

John Curtis
Asst. Superintendent
Rancho Socano G.C.

Craig McDonald
Asst. Superintendent
Woodbridge Golf & CC

Mike Snyder
Asst. Superintendent
Oakhurst CC

New Affiliates - 30 day wait

Paul Hanson
Sales Rep
Vermeer

John Holmquist
Sales Manager
Automatic Rain

Ron Saito
Deputy Director
City of Manteca
Parks & Rec.

New Class A Life
Leonard Walsh
retired from Boulder Creek
Golf & CC

Billy Osborn
retired from Mill Valley
Muni GC

Highs and Lows

According to *Golf Triumphs and Trivia*, published in 1988, to reach the highest golf course in the world, players must travel to the Tuctu Golf Club in Morococha, Peru, which is 14,335 feet above sea level.

The lowest course is the Furnace Creek Golf Course in Death Valley, California, at between 178 and 272 feet below sea level.



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ENVIRONMENTAL COMPLIANCE

Continued from page 3

ing, acid creates solubility, and caustic creates precipitates.

In practice, the pH is controlled to a point around 8.5-9.5 pH using caustic soda, the precipitates then form immediately.

A specialized electrically charged chemical or two, called **polymers**, are then added at about the 2-10ppm range and mixed in.

Polymers have many molecular receptacles that are designed to attract and coagulate the microscopic precipitates into visible particles (called *pin floc*) that are increasingly heavier than water. This coagulant (*sludge*) then rapidly settles to the bottom and clear water exist the top.

The precipitate and settling

method is generally considered to be $\geq 99\%$ efficient, so the sludge will contain most of the pollutants present. The resulting treated water is generally *very clean*.

The small quantity of sludge produced is poured out and dried for easy handling and economical disposal. Typically, a sludge is poured into a bag filter and allowed to further dry by gravity.

If you are considering this treatment method, you should consider the cost of treatment chemicals and of sludge disposal. If you are treating a hazardous wastewater (not expected at a typical golf course), then you would also have state permitting requirements.

In next month's article we will cover the rest of the treatment methods: Ozone and Chlorine.

Making a Point About Change

Having trouble persuading your staff that incremental change is worth the effort -- and that change doesn't have to be immediate, dramatic and sweeping?

If so, try this exercise suggested by Richard Ruhe, a consultant with Blanchard Training and Development:

Tell staff members to imagine they've just been told they have won a state lottery and they have one minute to choose between two payment methods:

- ⊗ **\$250,000** a day for 30 days.
- ⊗ **One cent** the first day and double the amount each day for 30 days.

To make it easier for you: The first method totals \$7.5 million, the second method totals, \$10,737,128.23!

Tips from the USGA Know Your Limits

by Paul Vermeulen,
USGA Agronomist

With spring just around the corner it won't be long before the grass starts growing faster than most maintenance crews can cut it. To the delight of many golfers, such miraculous growing conditions make it possible to increase the putting green speed by simply lowering the height of cut below normal limits.

Unfortunately, spring eventually turns into summer. It is at this point in time that a lack of understanding on part of many golfers meets with the Superintendent's reality of working with an uncooperative Mother Nature. The result is one of golf's biggest controversies - Putting Green Speed.

In the midst of controversy many individuals often look for someone to blame. Golfers naturally blame Superintendents, as I have heard on occasion someone say, "*The greens are always faster at the course down the street and they NEVER have problems. I think our Superintendent is just making excuses.*" Superintendents, on the other hand, have a tendency to blame the PGA TOUR or the USGA, as I have also heard on occasion someone tell me where I can shove my Stimpmeter!

Looking for someone to blame, however, will never resolve the issue. It's not the fault of Augusta National that golfers believe the greens are always faster somewhere else. And it's not the fault of the PGA TOUR, nor the USGA that golfers believe greens should roll 10 feet 6 inches.

In an imperfect world the only way to address controversy is by providing all parties with the facts. In other words, we need to educate golfers, so they themselves can appreciate the realities, or rather the limits, of putting green maintenance.

A good education should start with an understanding of the past; the fact is that green speed has increased dramatically since the turn of the century. What evidence is there you ask? First, let us take a look at the equipment. On a tour through the museum at Golf House in Far Hills, New Jersey, golfers can examine putters from each decade and see that the slope of the face has dropped from 10 degrees in the early 1900s to 3 degrees in 1994. Why? Because improvements in mower technology have allowed the height-of-cut on greens to drop from above a 1/4" to below a 1/8".

Second, let us take a look at records kept by William Bengeyfield, former Western Region Director, USGA. On average, the putting green speed across California was below 7 feet in 1977 and 1978 when a survey was taken by

Continued on page 7

FYI

by Barbara Mikel

Annual Dues Renewal Continues

I received quite a few checks with no information sheets last month. I have mailed out a duplicate info sheet to these, please fill them out and return as soon as possible.

Please note: If your renewal and the \$20 late fee are not received in the Association office by **February 28th**, you will be dropped from the membership roster. Reinstatement requires reapplication with appropriate dues and initiation fees.

Classification

You might take this opportunity to review the Constitution and Bylaws located in your Directory. Some of you have left positions due to retirement, changes in jobs, etc. We have retired member classifications with reduced fees for those of you finally beginning to enjoy the game of golf instead of golf course maintenance. If you have found yourself in an "unemployed" status, the association

has a Class A or B "Inactive" classification which allows you to continue your membership in order to still get job notices and to continue contact with the profession for up to two years. Your dues remain the same in this classification.

Some of our Associate and Class B members may have the time in service to upgrade to Class B or A, respectively. These requirements are also discussed in the Constitution and Bylaws.

If you find you need or want to change classification, simply call the office and request a membership application. There is no charge for membership reclassification to Class A or B Inactive. Your reclassification to "retired" will actually reduce your dues. Membership upgrades

to Class B or Class A involve no additional fees. After you have returned the application to the office, it is scheduled for Board of Directors review at the next monthly meeting and you are notified of the change to your status.

ATTENTION

The 1994 Education/Institute committee is being formed. Anyone interested in participating on the committee or having ideas for subject matter should call Bill Kissick at

408/443-4566 or Randy Gai at 510/653-6789.

Mark your calendars.

Mechanics Workshop at Castlewood Country Club maintenance shop. Tentative date: March 7, 1994.

A hands-on workshop featuring Ben Showard of Turf Equipment Services. Reservation notices will be coming in the mail. If your mechanic "knows it all," please send him anyway, maybe he can pass on a few tips.

Heavy Hitter

George Bayer, a pro on the tour in the 1950s and 60s, was acknowledged as one of the longest drivers of all time; he managed four holes in one in tournament play.

NAUMANN'S NORCAL NEWS

Steve Carlton is temporarily working as a consultant at the Pei Tou Kuo Hua Country Club in Taipei, Taiwan. Steve says it is a long commute, but the club is making it worth his while...Also in Taiwan at the Miramar Golf and Country Club, a Jack Nicklaus project, is **John Farley** who used to work at Bidwell Park Golf Course in Chico...**Scott McBeth** is the new superintendent at Carmel Valley Ranch

Golf Course in Carmel. Scott was assistant at North Ranch Country Club in Southern California prior to his move. He is replacing Mike Higuera...In addition to fighting nematodes, diseases and members, **Frank Barberio**, superintendent at Mira Vista Country Club in El Cerrito, recently finished rebuilding all the tees and building cart paths around them.

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