<u>**T** H I N G S</u> - By Lee - - - - Your editor has not deserted you, even though I did not write in last months' paper. But upon my return from Boston I found my work piled up to the point where I had to stick around and try to clear at least a part of this load up. My boss gives very short target dates, and accepts no excuses. I did not even make the meeting at Jim Ross' place. Anyway, right after I got home from the big shindig in Boston I started writing while the memories were fresh. I never finished the whole article, but this is what I wrote:

The Boston Turf Party is now history. Your editor was there, thanks to an invitation to be on a panel on Irrigation. It was a great experience for me since I have attended only one conference prior to this one, which was the one in San Francisco some years back. But I did not get the true feeling for this sort of convention, since I drove back and forth each day and only attended the lectures. But there is much more than that. The difference is people. You meet very interesting chaps, many of whom you may have read about in trade magazines.

The equipment show is always one I enjoy. I am just a natural-born gadget-hound, and love to browse around to find new things or things which I can use to make my work somewhat easier. By and large, the Boston show produces rather few revolutionary things. As they come to mind, I recall such machines as a new hydraulically-driven 7-gang mower by Roseman; a proto-type deep aerifier (6 inches) by R & R Industries; a new Maxi triplex mower by Locke Manufacturing Co. of Bridgeport, Connecticut. There was new maintenance equipment by both Toro and Jacobsen, and a lot of smaller things, some of them very ingenious. There were some fine turf vacuums I have never seen, and a real dandy heavy-duty rock picker, which looks like a winner for large construction projects.

The highlight of this event was not in the equipment part. For our Northern California Association it was the election of our own Cliff Wagoner to the position of Grand Imperial Potentate, and another of our illustrious members. Walter Boysen. who was given GCSAA Special Merit Award. This is the most prestigious award presented by the Association. Also, of the speakers on the program, we had 3 from Northern California. Roger Larson gave his usual competent presentation on the preparation of a course for a major tournament. Taborski, the new superintendent of the Half Moon Bay course now under construction, pitched in for architect Francis J. Duane, and showed some highly interesting slides on the progress of his course which has some real cliff hangers. And I mean this figuratively speaking. Maybe we can invite him sometime to show us some of his slides of the course when he is further along. And then last, but not least, yours truly was a panel member on irrigation. And so, as I said before, the Northern Cal group had a fine showing. After all, why shouldn't we?

But the weather! It was about 14 degrees above zero when I flew in That is not bad, but there also was about a 20 mph wind blowing. The chill factor brought it down to about - 40 degrees. For this Californian this this was operation "Quick-Freeze". But it was "unusual" weather! But this was not all that made me freeze. The weather just made my body freeze the Boston Graduates of the Kamikaze School of driving, who laughingly call themselves taxi drivers, made my blood freeze as well. You see, when the Second WW ended, the Imperial Japanese Air Force had not used up their contingency of Kamikaze pilots. These fanatic men, facing a very unsure future in their devastated country, decided to take out revenge against the Americans. The graduates of this school are now known as the Boston Cab driver, and Japan got their revenge against the US anyway. At least in Boston. I vote that if the GCSAA again hold a meeting in Boston in the future, they should provide two things: Private transportation for all guests, and fully paid-up life insurance.

There were a goodly number of Californians there, both superintendents, their wives, and many of our commercial members. All in all, I had a good time. I am sure everybody did too.

Lee Huang

## # # # # # # #

News from a former Northern California Superintendent, still a Class A member who is making it good. Happy to hear from you Ed Stocke

In February of 1971 I became Superintendent of the Willamette Valley Country Club in Canby, Oregon after fifteen years of Supervisory work in California. I was an active member of the GCSANC since 1958 and have served one term as a Director.

Willamette Valley Country Club is an 18 hole private club on the banks of the Willamette River in the city of Canby which has a population of 4,500. Our membership is full at 400, all avid golfers. Willamette Valley Country Club is 9 years old and plays 6,701 yards from the regular tees and can be stretched to 7,000 yards. WVCC has been the site of all the major Oregon golf tournaments. We have hosted the Oregon Open, Oregon Amateur, Oregon PGA and the 1973 Oregon Junior Championships will be held here this year. The competitive course record stands at 69, set in 1969. Our greens average over 6,000 sq. feet. There are a total of 150 acres; 3 acres in greens, 2 acres in tees and 70 acres in fairways. The remaining 75 acres are rough. Only about half the rough is mowable, the remainder is dense foliage, berries, abundant wildlife and huge boulders.

My maintenance crew consists of five year-round men and up to eleven in the summer months. The sandy loam soil makes the course playable year round. The unusually long wet season postpones watering until late in the season. July and August are the problem months for watering as the single row watering system is totally inadequate when the temperatures remains in the high 90's for days at a time. Our predominately Poa Annua turf suffers a great deal, and a reseeding program is usually necessary in the fall.

The Oregon Superintendents have made me feel welcome here in Oregon

and the future looks bright. I'll see you all at the June meeting at Incline Village.

- Ed Stocke Willamette Valley Country Club

An invitation is extended to all to send in an article for publication telling about their courses. 1233 Kansas Avenue, Modesto, CA 95351

# # # # # # #

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the HALL of FLOWERS San Mateo County Fairgrounds, San Mateo Next to Bay Meadows Race Track, 19th Ave. Exit

Sponsored and conducted by the NORTHERN CALIFORNIA TURFGRASS COUNCIL REGISTRATION is requested for all who attend this Exposition. The purpose is simply to determine how many industry people attend and what major areas of work interest are represented.

There is no charge for registration

# # # # #

Class B Albert Cabrera passed exam City of Napa, Napa

Subject to exam Ronald Wrest Auburn Lake Trails, Auburn

Class D with 30 day waiting period Jack Birt Modesto Municipal, Modesto

John Kalostos

Ancil Hoffman, Carmichael

# # # # #

REMEMBER March 4-9, 1973 Asilomar Conference Grounds Pacific Grove, California Tuition \$225.00 covers meals lodging, instruction, etc. APPLY to UCD Extension Davis, CA 95616 Attention: William B. Davis More information January

Newsletter

## COMPOSTING: NOT A NEW IDEA -- JUST A GOOD ONE

by William H. Bengeyfield, Western Director United States Golf Association Green Section

In this modern age of ecology, some old truths are being rediscovered. One of the oldest, with its origin lost in antiquity, is the practice of composting! George Washington wrote about it in 1760 and even earlier references about it can be found in the Bible.

Not only does composting recycle organic wastes and reduce pollution, it can also save you money! Many golf courses spend hundreds perhaps thousands of dollars a year with a hauling company to dispose of their organic trash; tree limbs and trunks, leaves, clippings, brush, old sod, anything that was once alive. The same clubs will also spend hundreds (perhaps thousands) of dollars annually in purchasing peatmoss soil amendments, mulch and other organic materials for top-dressing, flower beds, new construction, etc. It's kind of strange when you think about it. They could be doing their own recycling and, in the years ahead, I believe more and more clubs will be doing just that.

Composting is nothing more than puting nature to work for you free of charge. Composting is encouraging the myriads of microbes in your neighborhood to decompose organic materials also in the neighborhood and for which you have no further use. Almost any natural organic product can be composted with proper care. Leaves, grass clippings, weeds, hay, sawdust, wood chips, garbage and even corn stalks will decompose. The microbes are not choosey. But they must have the right kind of climate for their activity. This includes proper aeration, moisture, nutrients and temperature. These are the factors that control the speed and success of the compost pile.

<u>Aeration</u> - Air is as essential to the microbe as it is to the human being. Oxygen must penetrate the entire compost pile. Compost heaps should therefore be built no more than 6 feet high. The width and length may be adjusted as to need and space available. Grinding the materials prior to composting speeds their decomposition by increasing their surface area and hence their susceptibility to microbial invasion. It also increases oxygen availability at the surface of the particle. Furthermore, the turning or loosening of the pile is important from time to time in order to assure good aeration.

Moisture - The moisture content of the pile is important in composting. At moisture contents below 40% (wet weight), organic matter will not decompose rapidly. If the moisture content exceeds 60%, the process tends to become anaerobic and the pile may have to be loosened. The best range is between 50% - 60% wet weight moisture. Maintaining moisture at the edges of the heap can sometimes be a problem and some kind of bin or trench is helpful. Snow fencing with posts at the corners makes a satisfactory bin. No floor is needed and, by all means, be sure good drainage is provided at the base of the storage area.

<u>Nutrients</u> - On some occasions, nutrients are initially added to the compost pile. The addition of about 15 pounds actual nitrogen (30 pounds of urea) per ton of dry material is suggested. This should maintain the proper carbon to nitrogen ratio for decomposition. Bear in mind, however, that excessive fertilization of the pile does not speed decomposition.

Some scientists have reported that small amounts of phosphate fertilizers mixed initially into some composts increase decomposition and nitrogen conservati n. However, larger amounts of phosphate are found to have inhibitory effects. Therefore, don't overdo the phosphate. Late research also shows that nitrogen can be conserved by not using limestone as has been recommended in the past.

<u>Temperatures</u> - If all other factors are favorable, the microbes themselves produce heat as a by-product of decomposition. They release large amounts of it and, since the pile is nearly self-insulating, the temperature rises. Microbes that grow best at ordinary temperatures initiate the decomposition and carry it on until a temperature of about 115° is reached. They then die. Another group of microbes take over and raise the temperature inside the heap to 140° to 170°. This rise in temperature, which usually persists two or three weeks, indicates that composting is going well and greatly shortens the time needed for plant material decay.

Again, let's emphasize the importance of turning the compost heap. It hastens decomposition by increasing the supply of oxygen to the microbes. Heaps are turned in some commercial operations every three or four days whil in farm or gardening operations, a turn at least every three weeks is recommended. Frequent turning also assures better mixing and more uniform decomposition of the heap.

<u>Added Notes</u> - We occasionally hear recommendations favoring the inoculation of the pile with prepared cultures of microbes. This is supposed to hasten the process and lead to a better product. From research evidence to-date, additives do not appear justified except in a few special instances. In composting sawdust for example, and innoculation with spores of the fungus <u>Coprinus ephemerus</u> and addition of ammonia, phosphate and potassium sulfate was found to decrease composting time from one to two years to three months!

Mixing small amounts of soil into composts has also been found unnecessary. However, if you have some soil handy, it may help to conserve nitrogen and other nutrients within the pile. If placed around the outside of the pile, the soil will help conserve moisture.

When It's Done - If everything goes along well, full composting usually requires about three months for completion. Under commercial conditions with large heaps and frequent turning, composting time may be reduced to two or three weeks. In any event, the process is complete when interior temperatures drop to the air temperature and the material crumbles easily in your hand.

The material is then ready for incorporation in your top-dressing preparations, flower beds or other plantings. It's as fine a product as anything you can buy and an awful lot less expensive. And just think, you have now entered a new business; the recycling business!

If you are interested in knowing more about compost development and management, two excellent references are: "The Biochemistry and Methodology of Composting", Bulletin #727, Connecticut Agricultural Experiment Station New Haven, Connecticut

"The Yearbook of Agriculture - 1957 - Soil", United States Department of Agriculture, Washington, D.C.

Your County Farm Advisor should also have a wealth of information on the subject.

## \$\$\$\$\$\$\$\$\$\$\$\$\$

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