TurfComms



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PURPOSE: To pass on what we learn willingly and happily to others in the profession so as to improve turf conditions around the country.

GOLF COURSE ARCHITECTURE - design, construction & restoration by Dr. Michael J. Hurdzan: This book is written by a multifaceted Ph.D so it is not surprising to find the book is multifaceted. Dr. Hurdzan is not only a past president of the American Society of Golf Course Architects, which means he has his professional peers respect but he is a retired Army Colonel who spent 23 years in the Special Forces as a Reserves officer.

This is more than a book on golf course design for it considers the soil, the environment, and the maintenance with just as much emphasis as it discusses the game, the golfer and the business of golf. This is a book that should be read by every green chairman, manager and club president as well as every student and superintendent of golf course maintenance. It can serve as a reference book as well as an inspiration. Don't worry many readers are not all going to run out and hire Hurdzan. Not after they realize reading his book that it was one of their "hair-brained schemes" that failed and is thus driving membership to "an outside agent." Dr. Hurdzan is not very kind to the works of many amateur architects who mess with the design of their golf course.

Where as the last book I reviewed on this subject, that by Doak, concentrated on design by a knowledgeable student of the subject; this book lets you into the mind of an established architect as he goes from site selection to opening day. Dr. Hurdzan after 170 pages on basic design, some comments on the game, and hiring an architect; carefully takes one through the process of designing and building a golf course. He does this with a combination of written word and 350 figures. The latter range from the usual design sketches and pictures of golf holes to construction

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and grass establishment pictures.

Is it perfect. No, I would have like to have more complete information on some of the golf hole pictures where too frequently the caption did not give the location unless it is one of the courses he designed. Although even there it takes a while for one as slow as me to figure out that 49b and 49c were explained by the caption on the previous page. There also is a little too much of what he designed and not enough of what other current architects are doing. There however, is a good amount on the older architects' works. I didn't like the large "main line with a saddle clamp connection to a solvent-weld lateral..." he shows in Fig. 271. The lateral came straight up off the top of the main and looked like it was going to end up awful close to the soil surface - prone to breakage.

I did enjoy his addition of a fourth category of golf course design, **freeway golf**. After he described what this category looked like I had no trouble placing some of the numerous courses I've been on in that category. I also appreciated the positive material on the California approach to green construction. There are times when one feels that everybody thinks the USGA recommendations are the only thing that works. I also chuckled over the nice way he had of saying that he thought the Jack Nicklaus's of golf course design should be paying for the redo jobs they charge the owners for.

And how can you not like an architect who realizes that the maintenance is much more important to the majority of golfers than the design. He points this out at least twice in the book. The first time in the Introduction where he writes "it is often the golf course playing conditions that determine how well the golfer likes the design."

POND ALGAE CONTROL: I received in the mail early this spring a clipping of a column by Terry Poole, Extension Agriculture Agent in the Washington D.C. area. It was titled "Controlling pond algae with straw". It was sent with a note that had written on it, "thought you may be interested." I was. I seem to remember hearing something like this before. The name Terry Poole sounded awful familiar too.

Mr. Poole writes about Extension Water Quality Specialist Dr. Dan Terlizzi writing "about how the British observed that barley straw reduced algae growth in ponds." Poole writes that the straw bales must be put in the water a month before the algae starts and may need to be replaced two or three times during the season. "Dr. Terlizzi recommends two to three bales per pond surface acre." Mr. Poole suggest you try any straw or even hay bales. I assume they are talking the old rectangular bales and not the big round bales so popular out West.

No reason as to how this works is given except for the release of some mysterious Factor X. I'm assuming that the straw acts as a food (carbon) source in the water and thus gets some sort of microorganism growing. The microorganism then uses up all the available phosphorus and nitrogen that serve to stimulated the algae growth in the first place. With no phosphorus and nitrogen available in the water the algae can't grow very well. Mike Larsen reports that it works from everything he has heard. Thanks Mike.

NEW INSECTICIDES: If you have been keeping reasonably up to date on insecticides you are aware that Merit has been getting rave reviews as a grub killer. Did you also know that this is a new chemical family of insecticides. It is not an organophosphate, carbamate or pyrethroid. These three chemical groups have dominated our chemical arsenal for so long now the resistant problems are scary.

An excellent article on the new insecticides appeared in the March issue of Lawn & Landscape magazine. It gives a little historical background of the old organophosphate and carbamate materials; then covers the synthetic pyrethroid group which is relatively new. This latter group includes Battle, Mavrik,, Scimitar, Talstar and Tempo. The article then covers the Neem tree extract azadirachtin; which is sold as Turplex and Bioneem.

It spends a lot of space on Merit. Apparently when this insecticide is applied to the soil for grub control it also provides 20 to 30 days of sod webworm control. It is only effective on fairly young larva of insects.

The article also reports on a new Rohm Haas and American Cyanamid product, halofenozide (RH-0345) that will be around this year with an experimental label. It appears also to be effective on grubs.

Also covered are the bacteria, fungi and nematodes now on the market for killing insects. These include a new strain of Bt, "japonensis" variety 'buibui' which is reported to be very effective on grubs of the masked chafer and Japanese beetle.

Turf tissue testing : Challenges, approaches and recommendations as published in the March 1996 issue of Golf Course Management was to my way of thinking a nicely done infomercial for the new tissue testing business that Toro is getting into. Why? Because, it was written by a Toro employee about a Toro product, the BioPro tissue tester, and its value as seen by whom?

I would love to see tissue testing become a relatively quick an inexpensive tool for sound turf management. Perhaps years of research with this testing device by Toro will get it there. But, before you invest too many of your clubs hard earned dollars in such testing read also the USGA Green Section Record article, July/August, 1994, <u>Plant Analysis as a Diagnostic Tool on the Golf Course</u>.

GREENS CONSTRUCTION - The California Method: Is nicely covered in The Sand Putting Green, Construction and Management, Pub. 21448 of the Cooperative Extension, Univ. of Calif. Div. of Agric. and Natural Resources. 6701 San Pablo Ave., Oakland CA 94608-1239. They will send it to you for \$8.50.

In a nutshell the California Method eliminates the gravel and choker layer but not the need to thoroughly test the sand and know your soil physics. It does not eliminate the need for drainlines in the bottom of the excavation, or the need to have the contours of the excavation match the surface contours of the finished green. But they do dare talk about not necessarily needing all the drainlines the USGA recommendations call for when you are building in dry country. I don't see how you need them all even when the rainfall/year hits 50 inches. The USGA Recommendations are over engineered in that respect.

REMEDIATING SODIUM AFFECTED SOILS: This is the subtitle on an 18 page brochure but out by the PFI Corporation on SodexTM. Sodex is a liquid combination of urea and calcium chloride. This gives you a 11.6 lb. gallon with 5% N and 12% Ca. Application rates vary but 20 or 40 gallons per acre are common. At one gallon per thousand square feet you would be applying a 1.4 lb. of soluble calcium and almost six tenths of a pound of nitrogen. The key is the soluble calcium. Gypsum is not very soluble. 4

One of the precautions with using this material is not to use it with anything containing either sulfates or phosphates. Thus hopefully avoiding tying up any of this available calcium in insoluble salts. Once you have this amount of calcium in your soil solution you need only to be able to flush out the accumulated sodium. Sounds simple but it requires drainage. Thus while it may work fine in greens with fair to excellent drainage it may not be so helpful in heavy fairway and lawn soils with little internal drainage even before the sodium destroyed what was there originally.

EARTHWORMS: If you realize that earthworms are great at destroying thatch and assist in aerating the soil you will not want to kill them if it can be helped. An insert in the May 1996 issue of the Colorado Superintendent's Keporter tells of the relative toxicity of turi and ornamental pesticides to earthworms. It was written by Dr. Whitney Cranshaw of Colo. State Univ. based on data from Dr. Dan Potter of Univ. of Ky.

The following pesticides gave statistically significant reductions (kill) in earthworms: Sevin, Turcam, Cleary's 3336, Tersan 1991, Mocap, and Crusade. Both Dursban and Triumph also gave reductions but these were not significant. 26 other pesticides did not reduce populations.

GCSAA CONF. & SHOW Feb. 1996: I'm just a little late getting this issue out and even latter reporting on this Conference. As usual when I go to a GCSAA Conf. I get a lot out of it. One of the superintendents in the first session I attended - Problem Solvers - told about putting on four organic materials for nematode control, one after the other. Said the nematode problems went away after that. No comparisons, no checks or no controls just CONVICTION! That got me off to a bad start. Actually adding organic matter to soils has been reported before to reduce nematode populations. But which one of the four did it?

Enjoyed the Poa annua session moderated by Tom Cook. I thought his talk there and his similar article that appeared in Jan. 1996, Golf Course Management were good. They take the approach that *Poa annua* is too well adapted to some parts of the country to make fighting it very worth while.

During the above session Dr. Vargas also pointed out how well adapted *Poa annua* is for survival on our golf courses. It has wider genetic diversity on site than the bentgrass in our greens and of course its seed are always there to fill in any lost turf. Creeping bentgrass needs morning sun and only dies once. Poa lives forever.

The next session I attended was the Zoysia session. Denis Barron was the first speaker, I had seen him, I hadn't seen him since 1984 when he was a young superintendent at Cherry Hills G.C. I'm going to have to drop by and see his new course he claims he is planning on putting in Sub-Air for greens with poor air circulation. Does anybody still remember when Sub-Air was a device you pulled through the soil like a mole drain to improve drainage?

- END - (Ed. we'll finish up this Conf. in the next issue)