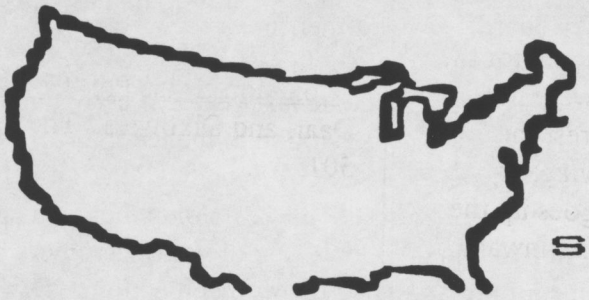
TURFCOMMS



V. 7, I. 4 SEPT. 4, '93

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

HYDROJECT: I have not been an ardent supporter of this expensive piece of aerification equipment. I've been quick to admit that it did a nice clean job. I just had trouble finding a condition where it appeared to do much good. Well, I found one.

I was visiting a course in mid-Texas in August that I had been to in early May. In May they were having severe problems with localized dry spots and soon after had lost some turf to drought stress. The course owned a Hydroject and the superintendent put a proportioner on it and using Lesco-Wet nonionic tablets at approximately one per green injected this into his greens. He did the injecting by closing off every other nozzle. His course has two nines. On one nine the greens are sand base - - close to USGA Specifications, the other nine are soil base greens with 3 or 4 inches of sandy topdressing and organic matter on top from topdressing over many years.

When he used the Hydroject in this fashion on the older soil base greens it kicked up all sorts of soil and made a mess so he did not do these again. The sand base greens he did four times. Yes, the sand base greens did look somewhat better than the old soil base greens but what was striking is you could see in many spots on the old soil base greens exactly where the one pass with the Hydroject and wetting agent had gone. There were nice green streaks approximately two and one half inches wide on six inch centers. Six inches is the distance between nozzles when you stop off every other one. These streaks were very visible two months after having been done because this treatment obvious saved the turf in its time of crisis. The machine was set to punch holes as closely together as the machine will go. So the next time you have a localized dry spot problem go out there and inject some wetting agent. But, be sure you do it two directions or you may have to explain some green streaks to a visiting agronomist.

TURFCOMMS is published at unpredictable intervals by the editor and publisher:

Douglas T. Hawes, Ph.D.
Certified Professional Agronomist
Specializing in Golf Course
Maintenance Consulting

2408 Roundrock Trail
Plano, Texas 75075
(214) 867-0176

Subscription cost is $15. Send checks to Doug Hawes at the above address.

WHAT A YEAR: Started out purchasing a 486 chip computer with a medium size hard disc drive and a 3.5 compressed drive, modem/fax board, CD ROM, and AmiPro for my word processing software.

I had just begun to learn the capabilities of this machine when I was notified I had been awarded the contract to provide consulting service to 24 Air Force Bases from Calif. to NY and south to Florida in 22 states. Immediately went out and bought a new-to-me truck with cap, and later bought a laptop computer for typing reports while on the road. That plus having the youngest daughter get married put me $17,000 in debt and feeling like a young entrepreneur. Plus, now I had three machines I had to get used to in a hurry and one very large software program.

Divided the visits to those AFB golf courses into four trips working my old customers in where they fit. As I sit here writing this on the first night out of trip three I sure appreciate the experienced gained planning trips around 13 states as a USGA Green Section agronomist. Scheduling trips of 30 days and 6000 plus miles was relatively easy, although there were a few times when I was out on a particularly long leg that I cursed the planner. Yah, who else are you going to talk to when your by yourself driving for over 10 hours.

Weather is always a topic and this year was no different. My wife and I on the second trip had a little trouble getting across the Muddy Mississippi, the Hannibal bridge was out but the Quincy bridge was still above water, that day anyway. Stopped in to see my mother in New England and they were in the middle of a 90 plus heat wave --- they don't have A/C up there. Then it was down to the hot and dry Carolina's area. When we finally got home it was to find Dallas at 29 days with out rainfall and counting, plus the usual 95 plus heat and a few too many 80 degree cool nights.

SOIL SAMPLING: Part of the Air Force contract called for two soil samples per hole. I took more soil samples this year than I've taken in my lifetime. We'll talk more about this some other time.

Late last year and early this I was involved in trying to influence the wording of the revised USGA Specifications. It is hard to believe they are 33 years old when you spend a summer where only one of your customers has all his greens built to these Specifications. Of all the customers two sets of greens stand out in my mind. The first was a customer on the East Coast, bentgrass greens quite far south with pond bottom clay base. The second customer was up far enough north that heat spells of 90 degrees were measured in days, actually the hours over 90 were easily counted. The soil on the whole course except for the greens was a gravely very well drained sand. Each and every green however had a cruddy soil base but the first green I came to blew me away. I didn't know the age of the golf course at that time and here it was essentially flat to the ground pre-World War I style. It turned out the course only dated back to the 60's and this was the only green constructed in that style. But, what makes it interesting was that all the greens were built on top of at least 12 inches of a silty clay loam that had been hauled in from somewhere off the course. Yes, even the one lying flat to the ground. Guess which green was also partially surrounded by trees and was the only one they were having problems with.

CHLORINE: In turf we don't worry too much about this element but if your caring for ornamentals it is wise to realize that many tropicals are very sensitive to it. Early indications from research are that applied chlorine as various chlorides may control some diseases. A number of my customers this year were using chloride treated water. They did appear to be having less disease problems than those using pond water. There maybe too many variables between courses but, that would be an interesting comparison for the some turf pathologist with a USGA Green Section or GCSAA grant to do a study on.

While chlorine treated water may be good for your turf it isn't apparently that good for your colon. Seems those who drink the stuff tend to have more colon cancer than those that drink non-chlorine treated water or beer, or wine, maybe? Now don't use that as an excuse. First, you've got to live long enough to get the cancer.

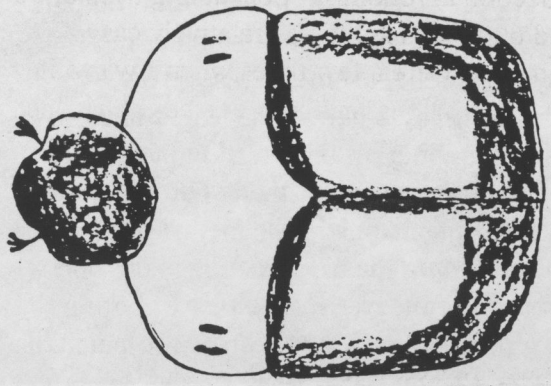
CHITIN: This is the structural compound in crab, and lobster shells etc. It is similar to cellulose the building block of wood. Ground up and put on the turf at high rates it has been reported as being a biological control for nematodes. Turns out it may have a lot of other interesting uses. So if you have been using it for nematode control and the price starts to go up even higher it may be because this chemical similar to cellulose when applied to the skin keeps fungi and other microbes from growing there and it is completely biodegradable by the human digestive system. Scientist are expecting to find a lot of novel uses for it.

BENSULIDE (Betasan, Presan, Lescosan): I keep trying to convince superintendents that this is a tool in the fight against Poa annua in bentgrass greens. Used properly I'm more impressed with its ability to reduce Poa popula- tions than TGR or Cutless. It needs to be put on in the late summer, late fall and early spring to be effective but, it does help. Exact timing will depend upon your area soil temperatures. Poa doesn't germinate until soil temperatures at the surface drop below 80 degrees. Pre- ferring, temperatures between 40 and 70 degrees with some research showing it favored by warm days and cool nights. Experience seems to say it germinates very heavily in the first cool rain fall weather. Germination in the spring is not as closely observed but it has the ability to germinate well after soil temperatures get above 40 degrees. If you lose Poa to heat stress or winter damage it can't regerminate if bensulide is in the soil surface.

What's the trade off with using bensulide? perhaps two things, stolons will have a little harder time rooting and if a large portion of your green is pretty much solid Poa and you lose the Poa you're going to have to come back with either activated charcoal before seeding or sod the bare area.

A NEW INSECT PEST??? : I doubt it but did find four female ??? bettles dug into the mat on three greens at a South Dakota golf course. These were in the family Scarabaeidae , which gives us our turf destroying grubs of the Japanese bettle and various June beetles. No grubs were found in these greens but????

The beetle is 11mm long and 7mm wide. The underside including the legs is a light brown, the strong looking legs are hairy. From above the typical Scarab antenae, and a light brown and black coloration (see drawing below). The head is all black. The thorax covering has a faint double spot of black on both sides plus some black along the back edge. The wing covers have the black along the edges and about 1/3 of the rear of the cover is black. This appears to make it the Fancy Dung Beetle, Bolbocerosoma farctum, if my evaluation of drawings and notes from one text is correct. Below is my drawing based upon slides.



The insect was only found buried in the turf mat. It raises the grass up in what first looked like someone dragged a golf shoe spike. But, closer examination shows that not to be the case rather the grass is raised up like a tent 1/3 of an inch over a 3/4 inch distance. The beetle had apparently burrowed in during the night and these "tents" were visible in the morning before the greens were mowed. The date was August 17th.

Has anybody else seen this critter???

DRIVING RANGES: Aug. 21, just saw one of the best driving ranges I've seen in a long while. The proud owner is The Links Course at Sierra Blanca, Ruidosa, NM, the architect was Jeff Brauer, Congratulations. It had the biggest tee I've seen in a long time, must have been close to 100 yds by 100 yds.

The golf course is pretty good also. Hard to believe it was an old airport. There are so many mounds you'd have trouble landing a helicopter. Looks like a very interesting course to play. The driving range and the course were packed on the 21st.

So as other deserving golf courses don't feel left out Preston Trail and Barksdale AFB both have good ranges by the standards of most golf courses.

METHYL BROMIDE KILLS TREES: No, not unless you try to. However, rototilling up a tee or a green and then fumigating with methyl bromide will certainly kill any tree roots that were in the soil under that tee or green. And if the tree roots are killed in the middle of summer the nearby tree may show some very severe symptoms of stress -- like all the leaves turning brown and dropping off on a section of the tree. But, the point to be made is methyl bromide kills the tissue it contacts only. The methyl bromide is not translocated up the tree. You may possible lose a portion of the tree from either or both of the above procedures if they destroy too much of the tree's roots in midsummer when the tree is very dependent on all of its root system to supply necessary water.

A recent such experience with a live oak, a red oak, a white oak and three cedar elms proved interesting. The leaves on portions of the affected trees turned brown within two weeks and for the most part died. The affected leaves were not always on the portion of the tree nearest the treated tee. This is due to vascular wrap; a twisting of the vascular system as it goes up the trunk. The leaves die from the margins inward with the midrib staying green the longest, a typical symptom of desiccation.

Two of the cedar elms affected continued on to produce fruit on branches the leaves had turned brown on. Inner bark on twigs with dead leaves was still green and the twigs were still supple on all but one of the trees.

This spring the two oaks appeared to be recovering, although the live oak shows little life in the affected branches. The cedar elms on the other hand appeared to completely recover this spring but, in August started showing damage again in the affected branches. A large unhealthy white oak that was only partially damaged last year died in midsummer this year. The live oak is still alive except for the original affected limb but, half of it does not look too great.

TURFLINE, INC. - I got the phone number wrong in the last issue. It is 1 - 800 - 443-8506. Give John a call and ask him about his True-Surface Greens Rolling System.

METHYL BROMIDE : It apparently is on its way out what is there to replace it? Vapam? Calcium cyanamide? Solarization? The latter is the darling of the environmentalist. All is it takes is one or two mil clear plastic and lots of summer sunlight. Solarization is the process "that uses trapped solar energy to raise the soil temperature high enough to kill germinating weed seeds",* plant pathogens and nematodes. It will do a fair job on bermudagrass given four to six weeks of full sun and level or southern exposure. Soil needs to be loosened first although aerification might be enough on putting greens? Who knows?

Can't imagine too many golf courses waiting six weeks for solarization to take affect.

*Common-Sense Pest Control. 1991. Olkowski, Daar, and Olkowski. The Taunton Press, Inc. pg. 501.