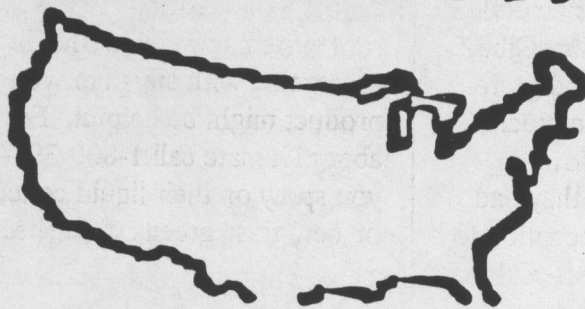


# TURF COMMS



V. 7, I. 7

Feb. 19, '94

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

Texas Turf Conference (continued): I have two talks on fungicide use that I plan to go to press with soon as a single issue. The talk below is just the last talk on the program that I took notes on.

**The last talk** I have notes on is that given by Carl Rygg, supt. of Squaw Creek, Olympic Valley, CA. His resort golf course is up in the Lake Tahoe area at 6200 feet of elevation. Due to environmental concerns the only way they could get a golf course built was to promise to use no pesticides (that means, no insecticides, herbicides, fungicides, etc.). Now at that elevation insects are seldom a problem and weeds are not too much of a problem but snow mold will eat you up! With 10 foot of snow in the winter of 1992-3 it cost them \$50,000 for snow removal on bentgrass greens and tees. The pictures of snowmold damage were as bad as I've seen. His approach is to go in and reseed as soon as feasible in the spring. Seeing that most play isn't till after the first of June, he does have some time for recovery.

Another rule he has to abide by is no fertilizer may be applied until soil temperature reaches 45°F, which is usually mid-May and he can not apply more than 1/4 lb.N/M/application and the applications must be at least two weeks apart. **IS THIS A SIGN OF THINGS TO COME?**

**GRASSES REDUCE TREE GROWTH:** I've been trying to convince students and clients the truth of this for many years. Most superintendents have no trouble understanding the reverse: Trees reduce grass growth. New research published in the J. Amer. Soc. Hort. Sci. Vol. 118, pg. 714, 1993 sheds some new light on the interference of grasses on tree root growth.

The article is titled "Orchard Floor Management Affects Peach Rooting". It is written by three members of the Mich. St. U. Dept. of Hort. They did research comparing six different types of orchard floor management. Two types of vegetation-free management: one with herbicide and one with cultivation and four with vegetation. The turf species used were 'Park' Kentucky bluegrass, 'Wintergreen' chewings fescue, and (K-31) tall fescue. Alfalfa was used as the fourth species.

"Trees maintained vegetation-free with herbicide had the most roots. Trees in the vegetation-free plots, maintained with herbicide or cultivation, produced more roots 1.2 m [4 feet] from the tree than trees in the vegetative covers. The number of roots, 1.2 m from the tree, was lowest in the tall fescue treatment."

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Again let me say using herbicides to control the vegetation around newly planted trees is a good way to get the most out of your investment in new trees. This data appears to indicate that tall fescue around the tree is more restrictive of tree root growth than Kentucky bluegrass.

### TREES FOR THE SOUTHERN GREAT

**PLAINS:** This is the title for a very informative and somewhat surprising article that appeared in the Oct./Dec. 1993, issue of HortTechnology. It is written by Doxon and Kirksey of New Mexico State Univ. and tells of studies begun in 1923, at their Tukumcari, N.M. location. This is a hardiness zone 6B site which experienced highs up to 108F (1939 and 1957) and a low of -22F, the latter in 1957. Hardiness zone 6B runs across the panhandles of TX and OK, through northern Arkansas, southern Pennsylvania and NYC. Rainfall in Tukumcari averages 16 inches and during the study ranged from 6 inches in 1934 to 35 inches in 1941, definitely semi-arid.

Large-scale tree plantings were made in 1923, 1931 and 1938. The recommendations that the authors make were arrived at based on survival of trees until 1987. The trees were not irrigated, in fact had receive no maintenance from 1949 to 1987.

"Only three deciduous species had good survival rates over the 64 years of the study." These were *Chilopsis linearis*, *Ziziphus jujuba*, and *Gymnocladus dioica*. *Chilopsis linearis* is more commonly called Desert willow and is a small tree with willow like leaves and catalpa like flowers. It is related to the latter. It has been widely recommended for xeriscape type plantings in Texas.

*Ziziphus jujuba* is known as Jujube or Chinese date. I have only seen this interesting small tree twice. It has medium size, simple, shiny, dark green leaves giving it an attractive appearance. The fruit is edible and can be messy I have been told. It is normally a thorny tree but, thornless

cultivars are available. Whitcomb recommends it but, I do not generally see it on landscapers tree lists. It is listed in a Desert Tree brochure put out by the Arizona Native Plant Society.

*Gymnocladus dioica* is more commonly called Kentucky coffee tree. It is the only one of the three not listed in the Arizona brochure. Nor is it found in Sperry's text, Garrett's text or one of Wasowski's texts aimed at Texas audiences. Whitcomb notes that it is hard to transplant but, very tolerant of poor soil conditions. As it is cold tolerant to zone 4 it is not surprising to find it absent in areas more known for there zone 8 and higher weather.

A fourth deciduous tree is favorably noted. Only two *Pistacia chinensis* were planted but both survived. And as the authors note they "were among the most-attractive deciduous trees in the study." This is commonly called the Chinese pistache and is often included on landscaper's lists in the greater Texas area although a fairly recent addition. It has beautiful fall color. The only one I have seen on a golf course is a thirty year old one at Davis-Monthan AFB in Tucson. It grows in the rough with little water but does not have a stand of turf underneath it. This is probably due in part to the dense shade but, appears also to be due to root competition.

I would like to note that under these rather arid conditions with no supplemental water the recommend three trees species did little more than survive. The average height of the Jujuba trees was 14 feet; that of the Desert willow was 2.6 meters ( 8 and 1/2 feet); and the Ky. coffee tree an average of 10 ft. But, a lot of other deciduous tree species were planted and did even worse. Some survived well enough the first 25 years but either did not live to 1987 or had such a poor survival rate the authors did not recommend them.

As these four trees are not currently planted on Western golf courses they add a new dimension to landscaping of Southwestern golf courses. We



can now tear down those ugly Siberian elms, Ulmus pumilia and plant some decent trees that with a little water will be decent to look at. Note of 413 Siberian elms planted two percent lived 65 years.

You do need water to grow a decent tree where the rainfall averages 16 inches per year and the air is as warm and dry as it is in New Mexico. Nobody should be planting trees west of Dallas with the idea they are saving the environment. I too love trees but, while planting trees west of Dallas may improve the esthetics of the golf course environment they will use a lot more water than a large patch of native grasses would.

For recommended evergreens species they had high survival of several varieties of juniper and oriental arborvitae. For more information on these I suggest you see the article or drop me a line and I'll send my customers a copy if your interested. Remind me that I filed it under Ornamentals: Trees for the S.W.

**SECRETS TO SUCCESSFUL GROW-IN OF BENTGRASS GREENS** - On page 32 of the January 1994, GOLF COURSE NEWS is an article by Terry Buchen, currently superintendent of the Double Eagle Club, Galena, Ohio. Terry writes this from a lot of experience and I'll vouch for the fact that he is good at bringing in new greens. I have visited many of his courses but, remember well the brand new putting surfaces on one of these. We were having a major USGA event in the same general area when he was having the grand opening of his new golf course.

His greens were at a 9.0 foot Stimp meter speed with almost as good smoothness and density for his opening as we had for the USGA event. We could have easily played the USGA event on those greens.

I suggest you read the article but, his secrets appear to be very frequent and heavy use of a high nitrogen and phosphorus fertilizer combined with very frequent light sand topdressing followed immediately with a lowering of the

height of cut. He calls this topdress and lower the height of cut management THE SANDWICH method. It works!

If you want to read the whole article and can't find your Golf Course News call Terry, or me. I have it filed under BENTGRASS.

**NUTSEDGE CONTROL:** I suppose most of you are now aware there is a new tool available for control of that difficult-to-kill family of weeds - the nutsedges. Monsanto now has an experimental label for Manage. They claim one to two ounces of the product per acre will provide control. But, more importantly they are claiming "Excellent Turfgrass Safety".

They claim "superior control" of Purple and Yellow nutsedge and suppression of green kyllinga, wild garlic and wild onion. Also, they claim tolerance by five warm-season grasses and five cool-season grasses. Included in these are St. Augustine and creeping bentgrass, two of our more chemically sensitive turfgrasses.

I only see one small problem with its use and that is having to allow the turf to go unmowed for four days (two days prior to use and two days after). Now if the cost per acre isn't too high and it works like they say we may finally get that nutsedge under control.

**ROLLING GREENS:** Well I went to the GCSAA Conf. and Show and after getting home on the last day I picked up my copy of Landscape Management, Feb. '94 and read a review of a study by Dr. Danneberger, et al at Ohio State U. on rolling greens. Now, I'm just can't get with this rolling-of-greens band wagon. Yes, it increases putting speeds without the need of lowering the height of cut or double mowing. But, other than doing it once in a while for a special championship I can't recommend it. I see no reason to buy a special machine for the purpose. Take the triplex out there and use that to roll the greens; put the baskets up and go with it if you feel you need to roll once in a while.

Here are the Ohio researchers' conclusion, "Rolling for a short duration is a means of increasing putting green speed with minimal detrimental agronomic effects. However, the long-term use of rolling may be detrimental to the turf."

**DALLAS - GCSAA CONF. and SHOW, 2/94:** I spent four information obtaining packed days there, approximately two days in educational sessions and two days on the Show floor talking to exhibitors and superintendents.

I got the most excited about Toro moving into the tissue testing business. I can't help but feel that tissue testing combined with soil testing and a good understanding of the interactions of turfgrass nutrition can't do wonders to helping us grow better turf. I'm not sure we have a good understanding of the interactions of turfgrass nutrition and when Karsten (Ping) jumped into the business three or four years ago I felt that they did not have the answers and weren't going to get them with what appeared to be a sales oriented force. Hopefully Toro will back up their move with technical expertise.

The second most exciting thing I saw was the **Softspikes** and the fact that they are catching on. They appear to have made good gains in replacing metal spikes in some northern areas for winter play. It is good to hear that metal spikes are banned for winter golf at some courses. Now if we can get the metal spikes banned during July and August on southern bentgrass greens it will really make a difference there to.

When I was a USGA agronomist I recommended they ban metal spikes at Colonial Country Club, Ft. Worth during the summer months and go to the rubber studded shoes that caused so much less damage in the study mentioned below. Colonial's greens were quite small and they had reasonably heavy summer play. The reception to my suggestion was not very warm. I wish I'd had Softspikes to recommend then.

The fact that Softspikes can be screwed into the metal spike's thread base should help them catch on. If spike wear is a winter or summer problem at your course I strongly suggest you get on this band wagon. I'd be glad to write a supporting letter.

The USGA Green Section has published the results of two studies (Record, V. 21, No.5 Golf Shoe Study II) that clearly show the damage caused by the metal spike. To the best of my knowledge they haven't looked at this innovation yet. It's time for another study, the last one was done in 1983. Call 1-800-638-0075 for more information about the Softspikes.

Other items on the Show floor that caught my eye were: **Humate** from Humate International, Inc. of Florida. It just so happened I was reading **HUMIC SUBSTANCES IN SOIL AND CROP SCIENCES: Selected Readings**, this ASA publication is the proceedings of a symposium on the subject. Much of the book was a little over my head but it fit in nicely with the benefits being claimed for Humate.

Humate is a potassium salt of humic acid. Humic acid in general terms is that part of the soil organic matter which is soluble in water at higher pH values (>8.0). Scientist have been unable to come up with a clear chemical structure and have now decided that the reason humus is so stable is the fact that it has a random structure thus no microbial enzyme system can effectively break it down (see the text above).

If you have new greens with low cation exchange capacity or situations in which you need greater root systems or you are having trouble with iron absorption with any plant you should consider this product might be helpful. For more information about Humate call 1-800-393-4769. I suggest you spray on their liquid concentrate. Be careful on bentgrass greens under heat stress.

**END**