

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.

A HAPPY NEW YEAR TO YOU ALL

OOPS ! If you are wondering how V.12, I.3 got published before V.12, I.2 - Stop, that was just a sample of how badly distracted my mind is these days.

OKLAHOMA TURF CONFERENCE: Dr. Greg Bell of OK State U. hopes to improve the uniformity of turf by spraying on small amounts of fertilizer only where needed using geopositioning and specially designed sensors that measure the health of the grass. In front of each nozzle on his sprayer is a device that reads the turf; then the computer will open and close the line to each nozzle as needed.

Dr. Ken Conway also of OK State U. is having some success with fungi to control soil borne diseases. Yes, you read that correctly, fungi to control fungi. He has even been able to combine these with low rates of fungicides to obtain excellent control in at least one experiment.

The second day I most enjoyed Dr. Robert Carrow's talk on **summer bentgrass decline**. He, a Georgia turf researcher, gave his talk a second title: **Organic Matter Dynamics in the Surface Zone of a USGA Green**. This is a subject I have discussed before in TurfComms. He noted that there will be a special issue out of the USGA Green Section Record the first of next year on

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
(972) 867-0176
Fax (972) 519-9263
e-mail: dhawes@dallas.net

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

why USGA greens fail. I suggest you send your \$15 in for a subscription if you haven't already listened to my urging to subscribe to this journal. Send to USGA, Golf House, Far Hills, NJ 07931.

He noted the grass roots need for oxygen 24 hours/day and the rapid build up of organic matter in the surface inch from the 1% at establishment to 4% or more within a year. That occurs even with a good light frequent topdressing program. This rapid build up of organic matter is one of the reasons for greens failure. It will be even more of a problem with the new cultivars.

To keep oxygen levels up in the summer time you must aerify. He has found that a core aerification worked for about 6 to 8 weeks. (Ed. good reason to schedule the Spring aerification as close to summer as possible) Then he suggest you go to quadratines with 3 inch penetration every two weeks and if the grass becomes really weak go to HydroJect in the raised position every two weeks.

Other hints were, don't use organic fertilizers in the summer because it increases algae problems and that can seal the soil surface really quick. If using high sulfur water than occasionally apply 5 to 10 pounds of ground limestone/M. This helps to convert the sulfur to gypsum which essentially removes it from being a problem in anaerobic soils.

Dr. Phil Colbaugh talked about **fairy rings** in bentgrass greens. He is studying this problem and has noted more of a problem when there is 20% O.M. than with 10%; and that problems last longer with rice hulls as the O.M. because they are so resistant to decay. There is 60 species of fungi (class basidiomycetes) that have been identified with fairy ring. Dr. Colbaugh would like you to send him your toadstools along with a note telling which of the 35 cultivars of creeping bentgrass that green is planted to.

MESOSTEMIC: This is a new word coined for you by Novartis when releasing Compass™, trifloxystrobin, their new fungicide. This is a second fungicide in the strobilurin group; Heritage being the first. This group of fungicides synthetically produced from natural compounds has two subgroups. Heritage is in one and Compass is in the other. Mode of activity is the primary difference according to Novartis. The term mesostemic describes Compass's high affinity with the plant surface and how it is absorbed by the waxy layers of the plant. According to Novartis, "It moves from the site of deposition on the plant surface by localized vapor movement and redistribution. It also penetrates plant tissue and moves within the leaf by translaminar activity, but there is no transport within the vascular system..." Both fungicides control a large spectrum of diseases but not Dollar Spot.

FROG DEFECTS: Have the frogs in your ponds been sprouting extra legs, kinked spines or limb deformities? It may be the **maneb** you have been spraying. Reported in Oct. 2nd, Sci. News from reports in the October **Environmental Toxicology and Chemistry** journal an Oklahoma study found "limb deformities and bent spines were triggered only by maneb or propylthiourea" when comparing polluted ponds with clean ones. Tadpoles are apparently very sensitive to various pollutants. One toxicologist from Stillwater, OK reported the above when frog embryos were placed in various concentrations of pond water from ponds that had resulted in deformed frogs previously.

Maneb, also known as mancozeb or manganous ethylene bisdithiocarbamate is sold as Fore™, Mancozeb™, and Dithane™. As well as contained in other combination fungicides such as: Pace™, Duosan™ and Zyban™.

SOLARIZATION: I have mentioned previously that this may be the way you attempt to sterilize greens or nurseries after methyl bromide leaves the market place. Recent Florida research (HortScience V.34(6) pg. 1085-1087, Oct. 1999 shows that a clear 100 micromillimeter thermal-infrared absorbing film was superior to UV-stabilized bubble film manufactured with two layers of 75 micromillimeter thick polyethylene film, 30 micromillimeter clear low-density poly, and 30 micromillimeter gas-impermeable black film. Superior in that under it the highest soil temperatures were consistently generated. A factor that will be very critical to control of undesirable weeds, insects, or pathogens.

GENETICALLY ENGINEERED FOOD: In the last few months I have read many articles or editorials on the subject of genetically engineered crops and the fact that the products from these crops are now on your kitchen table. It is hard to believe that the American public that raised such a stink about Alar on apples is so complacent about this subject. What bothers me is that producers are not forced by our government to label the products: be they milk produced by injecting cows with recombinant bovine growth hormone, or corn with the Bt toxin in it.

Basically, I'm sure most of these materials are safe but it will be a while before we are absolutely sure. Europe won't let these crops in from the U.S. Shouldn't therefore the U.S. of A. at least label them as genetically engineered. For further reading and opinions see: Consumer Reports, Sept. 1999, pg. 41-46; The Avant Gardener, V.31, #11, pg. 87, 1999; and World-Watch, Sept./Oct. 1999, pg. 2; or *Transgenic Crops Proliferate* in Vital Signs 1999, World Watch Institute, pg. 122-123.

ORNAMENTALS FOR POND EDGES: Sedges - the worst weeds in turf and agriculture have a lot of relatives that are worthy of consideration if you would like to improve the looks of an ugly wet area. For more information read Success with Sedges, by Rick Darke in THE AMERICAN GARDENER, Sept/Oct. 1999, or buy the author's book on ornamental grasses suggested in the last issue of TurfComms.

TREES: I believe I have mentioned the intergeneric hybrid *Chitalpa tashkentensis* before. According to the Avant Gardener two cultivars are now available from Arborvillage Farm Nursery, Box 227, Hold, MO 64048 or Forestfarm, 990 Tetherow Road, Williams, Or 97544. With their willow-like leaves and hardiness to -10°F these drought-tolerant 20 foot trees should make ideal flowering trees for the unirrigated roughs of cold hardiness zone 6, 7, and 8 golf courses. They have catalpa or desert willow flowers in green-veined white ('Morning Cloud') or rose-veined lavender-pink ('Pink Dawn') flowers

PLANT GROWTH REGULATORS: There is an excellent two page listing with info on the turf and landscape growth retardants, (regulators) in Grounds Maintenance, Oct. 1999.

THE ORCHID THIEF by Susan Orlean: I wouldn't call this a horticultural who-done-it; but it is an interesting approach to telling the world about the passion of orchid collecting in South Florida and the world. In someways it is similar to Carl Hiaasen's books about Florida yet

not so wierd. Included is a factual account about wild orchids which is interjected into visits by the author and the main character to horticultural nurseries, orchard shows, Seminole pow-wows, and the Fakahatchee Swamp. The information on wild orchids has been checked for accuracy by the American Orchid Society. I sent this on to Gary Griggs as both a thank you and in hopes he might appreciate it or know someone who would. 10/20/99 UPDATE *"I just finished the book you sent me. I loved it and it details this part of Florida very well. I give it a thumbs up."* Gary

JERRY BAKER - 'MASTER GARDENER': Finally the press (USA Today) publishes something negative on this professional performer that drives many of us professional horticulturist and agronomist crazy. For more see the front page of the August 23 issue where you will find an 1/8 page story which has another 1/2 page on page 2.

GUNS, GERMS, AND STEEL by Jared Diamond: This 1997 text that is a Winner of the Pulitzer Prize and the Phi Beta Kappa Award in Science is one you need to put high on your reading list. Because Dr. Diamond has done what no historian has been able to do and that is write a 425 page history of the world which explains why progress has been so great on some continents and so slow to develop on others over the last 13,000 years. Seeing that food production (6 of 19 chapters) is so critical to this progress the book should be of great interest to those with an agricultural (agronomy/animal science/horticulture) background. The book should be required reading for all graduating agricultural students, Peace Corps Volunteers, diplomats, and perhaps tourist getting ready to see the world.

THE USA better hope this guy doesn't have it correct: I just finished reading a book review that I wouldn't have read except for the journal it was in. The journal was The Industry Standard which claims to be "The newsmagazine of the internet economy". The book reviewed is: **IN PRAISE OF HARD INDUSTRIES:** why Manufacturing, Not the Information Economy, Is the Key to Future Prosperity, by Eamonn Fingleton. The reviewer makes it clear that this is a solid text that notes with convincing data: "Economic success continues to flow to nations with advanced manufacturing bases." The USA is no longer one of the world's nations with an advanced manufacturing base. Therefore our current boom "will in the end turn out to have been a mirage." His view but not my son who like me is in a service industry.

GCSAA'S Distinguished Service Award Winners: I was a pleasant surprise to pickup the December issue of NewsLine and see three familiar names across the top. All three subscribers to TurfComms.

Michael R. Bavier, CGCS I have heard about for years but never meet. However, he became a subscriber after I reviewed his book. Gary T. Grigg, CGCS, MG I have known for about 20 years. I once tried to get him on the USGA Green Section Staff. Bill B. would not consider allowing Gary to set up a Regional office in Salt Lake City so that was the end of that, certainly the Green Section's loss. George B. Thompson, CGCS I first met when he was superintendent at Columbia C.C. in the Washington D.C. area and I was teaching for Institute of Applied Agriculture. It didn't take long to find out he was one of the best supers in that area. He has trained many present day superintendents and one of my former students. These are three great golf course superintendents. Give them a round of applause.

- END -