

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.

SNOW MOLD CONTROL: In *The Perfect Lie*, Aug. 1998 is the results of a trial put out by Dr. Rob Golembiewski, Montana State Univ. on Riverside C.C. Bozeman. 100% control of pink and grey snow mold were obtained with these four combinations last winter:

Defend and WAC

Chipco26GT , Daconil Weatherstik & Turfcide 400

Heritage and Turfcide 400

Heritage and X-77

Heritage alone, or Chipco 26GT & Daconil Weatherstik without the Turfcide 400 didn't do it. Turfcide 400 and Fore gave only 90% control. For more information drop me a line or phone call and I'll give you 'the rest of the story'.

PRIMO FOR SHADE: Have you had time yet to read Engelke's article on how the monthly use of Primo helps 'Diamond' tolerate dense shade? The reasoning and evidence he and his cohort have found make a lot of sense not just for the cultivar Diamond, an already shade tolerant zoysia, but for all other grasses growing in the shade. Now, how are you going to make an even application of Primo underneath all those trees?

BUTTERFLIES and MILKWEEDS: I had one client inquiring as to where to obtain milkweeds for the purpose of naturalizing an area so that it would attract butterflies. The *American Gardener*, July/August 1998 pg. 24-30 answers that question giving nine sources as well as many hints and pictures.

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KIKUYUGRASS: Arizona Plant Breeders plan to release an experimental turf-type reports Grounds Maintenance pg. 82 of the May '98 issue. Seeing that this is a noxious weed in most states I'm not sure how they are going to do this. For those who haven't seen or heard of this tropical grass it is like having the most aggressive bermudagrass on earth for your turf. The kudzu of the turf world, at least the common East African strain that is found in much of California behaves like a miniature kudzu.

LAYERS: Anyone familiar with the USGA Green Section Recommendations (specifications) for putting green construction knows that layers have a place in greens. But, be sure you don't add another to the now famous gravel, choker layer, and sandy mix. Three times so far this summer I have had clients with troublesome layers in the top two inches of their greens. For one, the layer causes the surface to stay too wet after he flushes his greens. A very necessary practice in his semi-arid region.

Another has a high soil organic matter layer built up which started foot printing real bad. All had an original sand organic mix with 2 to 3% organic matter in the mix by weight not the 5% plus that was in the layer above the original. In two case it developed during establishment. In one case the superintendent in charge at the time did almost no topdressing during the grow-in and built up an organic mat from the grass itself. The second situation appears to have been due to very heavy Milorganite use during the first two years. The latter situation had the black organic layer on top of the original mix but buried now below one and 1/2 inches of topdressing and thatch.

Light frequent topdressing with the sand that made the mix or one very close to it in texture is the best way to prevent these layers from forming. However, I am constantly running into superintendents that strongly feel that they need to have organic matter in the topdressing, or worse yet occasionally soil. Yet almost nobody topdresses so frequently or heavily with straight sand that they end up with the surface inch of their putting greens having less organic matter than the mix below.

SQUIRRELS: USA TODAY July 31, 1998 pg. one. "already, the squirrel is No. 1 on the list of revenue generators for animal pest control operatives; he's the prime suspect in half of all unsolved fires; he's the documented culprit in a majority of nonweather-related power disruption: he's the wire-chewer who twice brought NASDAQ stock trading to a halt." I would not rate the squirrel as a no. 1 golf course animal pest but, they can be quite destructive to greens and trees in the fall and winter. In the fall by burying nuts in the greens and in the winter by chewing bark off of trees. They particularly like the bark in the crotch of elms, mulberries, and red oaks. One golf course client had a squirrel that took to eating the glue out of those cone shaped water cups.

How do you control these bushy tailed rodents? Not easily. Don't do what one superintendent I visited did. When he found out it was squirrels that were damaging his oak trees he got out a 10 gauge shotgun. After making only a very small dent in the squirrel population his shoulder told him it was time to quit that. He switched to a much smaller gauge shotgun and soon had his kill count that winter to over 200. A barn owl box or two might well help keep the population in check if you can get the owls to use the boxes.

Did you know or care, that squirrels love to eat 17 year locusts (cicada family not grasshopper family for you Westerners)? Or that Weber the gas grill people now make a squirrel protected hose for your gas grill.

BURROWING OWLS: Saw my first ever on a golf course in West Texas. This pair was in the deep rough the only problem they were causing is to upset the Mississippi kites. The golfers thought it was nice the kites were dive bombing something beside the golfers.

RAPTOR STANDS (Perches): Saw my first ones on a golf course in Idaho. They were too new to tell how effective they were going to be. This course had several hundred whistle pigs (ground squirrels/pocket gophers). The raptor stands are not much more than a 8 to 10 foot high T. The perch on top was less than 3 feet across. They need to be out in the open, and are best situated in the deep rough. But if you have rodents you could always use some rodent catchers.

NEMATODES: Resistant to Nema-cur? Nema-cur is not considered an overly effective nematicide by nematologist but, according to two recent superintendent reports it isn't even doing a good job of suppression at the label rate. And with bentgrass greens and 25 days in a row of 100° temperatures and counting what do you do?

PLANT NEMATODE INTERACTIONS Agronomy Monograph 36, pub. by ASA 1998.

I can't recommend this 771 page text to anyone looking for light reading. This text is not written with turf in mind but does cover many of the same nematodes as parasitic to the grass family (Poaceae) crops. As is stated in a chapter on forage grasses, pg. 427 "It should be noted that the division of Poaceae into recreational turf, forage grasses, silage crops, and cereals is arbitrary from a nematodes point of view."

What did I learn from reading this text? First, I didn't read it all. I skipped the chapters on cotton and other non-grass crops. Most importantly I got an overall feeling for the nematode problem and where researchers are currently at in understanding the problem. For instance, "At present, the use of soil amendments for nematode management has not proceeded beyond the exploratory research phase." Or, that certain benzimidazole fungicides (such as benomyl) "appear to induce effects similar to systemic acquired resistance." pg. 181. Or in other words benomyl may make the grass behave as if it is now resistant to nematode feeding.

I photocopied some pages for my files and turned it over to Dr. Phil Colbaugh in hopes that it would help support his research efforts into turf diseases if even in an indirect way.

GOOD NEMATODES: As you have heard and perhaps some of you have used those nematodes that attack other insects. They are present in your soil; or at least are present in most soils, probably not in your new USGA greens. The 'journal' *TURFGRASS MANAGEMENT in the Pacific Northwest* has a reprint from the Ohio Turf Foundation's NEWS V.60, No.2 which is interesting in that regard. Actually reading between the lines it also notes which insecticides suppresses nematodes as well as which preserves the good ones.

Ohio researchers in the Dept. of Entomology applied low (sub-lethal to grubs) levels of insecticides to plots of grub infected soil. They knew from previous experience and testing that

these soils were loaded with grub killing nematodes. Thus if a sub-lethal dose of insecticide didn't hurt the good-nematodes the kill of grubs should be as good as in the check plot.

Well sub-lethal levels of Merit and Conserve worked that way. Azatin, Choice, Insecticidal Soap and Mach 2 all had higher levels of grubs than found in the control plot where the beneficial nematodes had killed off all but two grubs. However the results were not perfectly clear, as all insecticide treated plots had less beneficial nematodes than the check plots. The biggest suppression of nematodes was with Choice and Mach 2. The first is only labeled for mole cricket control in this country at this time.

ANTS: Just finished reading Journey to the Ants by Holldobler & Wilson. If you have always been curious about ants or have a child or grandchild that is fascinated by them this is a book to consider. However, I don't think it is written at a level most preteenagers would appreciate. The last chapter How to Study Ants may be just what is needed to help you assist that child or grandchild enjoy many hours of non-electronic activity.

This book does an excellent job of discussing organization and functioning of ant colonies as well as the extremes in ant activities. The authors consider colonies to be superorganisms. Socialism at its scary best or worst? They also spend one chapter showing how easy this superorganism is tricked by various parasites. Interesting reading.

SOIL TESTS - the Saturated Paste Extract: Some tech-reps and sales people claim that this is a valuable tool and it may be in certain situations. But, in reality years of research at many state universities has found a weak acid extract to better measure the nutrients that are available to the plant. Why? Because the plant root gives off hydrogen ions as it absorbs nutrients and thus creates a weak acid solution around the absorbing portion of the root. This dissolves and makes available many nutrients not in the soil solution.

While a saturated paste extract measures those ions in the soil solution only. **The sodium ion and to some extent the potassium ion are less likely to be bound to the cation exchange complex (clay and humus) and thus are going to show up in much higher percentages in a saturated paste extract test than calcium and magnesium.**

So when looking at the results from a saturated paste extract test remember the nutrients that are available to the plant are more than just those in the soil solution. Therefore a weak acid extract better measures available nutrients. Now if all the laboratories would agree on which weak acid best does this we might have even more consistency between soil testing laboratories.

JANE: For all that have asked about how she is doing - an update. Seven chemo treatments brought dramatic reduction but not control. For the last two months she has been on a second material which has only done a fair job of suppressing the cancer but, has let her recover from the harsher chemo. She presently hopes to enter a second phase trial of a new material (CPT-11) at MD Anderson, Houston.

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