

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

VERTIDRAIN, AN UPDATE - A superintendent in the Washington, D.C. area reports that greens that had been aerified with this machine this spring - did not - come thru the summer in any better shape than they had in past years. Aerification with the Vertidrain did not appear to be helpful in staving off the disaster that struck many courses during the long hot summer of 1988 in that area.

Shortly after typing the above paragraph a call came in from a coarse in Texas with bermudagrass greens. They opted not to use the hollow times because of the potential expense. They were told by the owner and operator of the machine that if the hollow times broke they would have to buy the second and any succeeding sets at \$400 per set.

They had the greens done to a 12 inch depth. Reported that water absorption was greatly improved on the seven worse greens they chose to do. They also said the surface was so soft they got definite tracking and ridges from the large Mete-R-Matic topdresser. Had to resort to only partially fulling it.

WINTER COVERS - ANOTHER LOOK - Some recent work at Washington State Univ. combined a winter (Dec. 2nd) application of plant growth regulators on creeping bentgrass before putting down a winter cover. After going thru one winter with a fair amount of desiccation they found, "These preliminary results suggest that

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0.375 lb. a.i./A mefluidide [Ed. active ingredient of Embark] used with a protective turf cover can provide spring bentgrass turf quality without an unwanted surge of growth."

The 0.375 lb. a.i./A mefluidide is the same as one and one-half pints of the 2-S formulation of Embark/A or a 1/2 oz/1000. That is a high rate for a bentgrass green with a large amount of Poa annua in it. You might try it on a back corner or two.

One of the greatest problems experienced with winter covers is knowing when to take off the cover because the grass underneath has produced a very tender somewhat lush growth. The use of Embark may reduce the danger of this condition.

SNOW MOLD CONTROL - Choices - three - maybe! The two most satisfactory and well tested fungicides for long term snow mold control are PCNB (pentachloronitrobenzene) and the mercuric and mecurous chloride containing fungicides. A third recommendation I obtained from Dr. Vargas of Michigan was eight to ten ounces of Daconil with two ounces of 1991 or 3336. He claims this combination gives the long lasting control that would be needed in the Rocky Mts. or the Far North (North Dakota, etc.). Dr. Vargas also noted that only the O M Scott formulation of PCNB at the 2X rate has given consistent long term snow mold control.

Other materials which may be added to these fungicides or used to create combinations are: cadmium compounds, thiram, chloroneb, cycloheximide, iprodione, PMA, thiophanate-ethyl and triadimefon. One such combination is 2 oz. of PMAS and 6 oz. of thiram/1000. Which is very economical but, must go down just before the snow storm - each storm if turf exposed in between. None of these latter materials provide good long lasting control but, may offer a broader spectrum of control for the four or more fungi that cause snow mold or they may offer economy if you like to gamble.

For those that must control snow mold there are not a lot of good choices. PCNB at the 2X rate can result in nasty turf burns if the weather becomes unusually warm. The environmentalist would like to ban mercury materials, which experience tells us is the surest bet.

WORLD WATCH - In the journal with that name, Sept./Oct., 1988. pg. 16 concerning the new abilities to implant genes from one plant to another, "Biotechnology is a timely addition to the scientist's tool kit, one that will speed the pace and the potential return on investment in agricultural research, but it does not promise dramatic gains in production."

On page 29 there is a quote from James E. Lovelock who called the emergence of green plants on this earth nearly two billion years ago, "the worst atmospheric pollution incident that this planet has ever know."

Why? "Because their ability to capture sunlight and use it to make food from simple chemical compounds - the process called photosynthesis - dramatically altered the composition of the atmosphere. It released pure oxygen into a world that had evolved without it..." This last quote is from the article author, Sandra Postel, who is writing about a solution to at least part of the present atmospheric pollution problem, CO². Her solution - forests, more not less.

IT'S GROWING COOLER - In amongst all the hullabaloo about "greenhouse effect" and that the earth is getting hotter there are two reports of cooling. Most of you had an abnormally hot summer so I thought you might appreciate thoughts on cooling.

(1) In Sci. News, V.134, No.13, pg. 203, 9/28/88 there was a report that Palm Springs, Calif. has grown cooler than nearby towns since the early 1970s. Two AZ State U. scientist give the credit to the effect of the 75 golf courses in this desert resort town.

(2) In Sci. Impact,V.2, No. 5, pg. 8, Oct.,'88 there is an abstract of a Sci.,V.241, article that reports a La Nina phenomenon in the mid Pacific. The water there is turning abnormally cool. "Weather scientists expect cooler atmospheric temperatures to follow, leading to an unusually chilly winter." Ed. - that'll help us have an average year temperature wise.

SPRING DEAD SPOT - Have a problem with it? Steve Cockerham at the WRCC 11 meeting, Dallas 8/88 said, Banner is good for SDS and also results in a general improvement of growth and rooting of bermudagrass.

NASHVILLE - Always thought Washington, D.C. was the best example of transition zone golf courses till I visited Nashville, TN in early September. Nashville has both bermudagrass and bentgrass greens at area golf courses. One coarse has Kentucky bluegrass fairways, another perennial ryegrass, most have bermuda of one cultivar or another; and one course is overseeding their bermuda fairways with perennial ryegrass every fall at 250 lb./A.

Summers there on the average are just a tad warmer than D. C. Nashville is about one year behind in annual rainfall over the last four years. It has a golf boom going with six new courses in some stage of development.

VOTING - Which of the three Texans on the ballot for president and/or vice president are you going to vote for in November? Now that you have looked at computer speed, let's examine it a little further and see how it applies to your selection.

Assuming that you don't need a lot of speed, but want to keep current with the latest software. I suggest an 8286 type processor, or "286" as it is known in the industry. The price of these units are coming down as the popularity of the "386" machines builds, and there are some very good units available. Of course, if you are inclined towards Apple, the Macintosh Flus and SE series is comparable, and as stated before, offer advantages in ease of learning. IBM PS2 50's and 60's are 286 as are all of the IBM AT class clones. The PC and XT class clones are all 8086 unless souped up by addon processors or accelerator boards. The IBM PS2 70 and 80 are 386 machines as are the Compag 386's and others. 386 machines have the advantage of simultaneous processing of two banks of memory which, in fact, means two computers in one. A 286 machine can also do this while running the new OS2 operating system, but with Dos 3.2 and up, operates like a single computer.

How much memory to have in the machine depends, again, on what you want to do with it. At present no matter how much memory you have, Dos 3.2 and 3.3 can only access 640 kylobytes. There are some programs which will allow access to more memory for certain applications, but they are tricky to use and don't work with all other programs. My PS2-60 has 1.2 megabytes built in, but can only use 640k for program access. It can use the upper memory for storing program data to make accessing faster, but I can't direct how it is used. So, for now, save some money and just get 640k. If, and when, you want to run OS2, you will have to add more, up to 2.5 megabytes, just to operate. I'm in no hurry either. Once again, the Macintosh's have the edge by accessing and using its megabytes. And, they already do pretty much what OS2 promises to do. I think I'm beginning to get homesick for a Mac again. At any rate, I wouldn't buy less than 640k, as you will quickly find that most programs are going to use it up leaving little for data storage and graphics.

Another consideration in buying the central unit is the ability to expand. Look for 6 expansion slots or more, at least two of them 16 bit (286 type) if possible. Cheaper doesn't necessarily mean less slots and vice-versa. There are some expensive machines being sold, notably IBM PS2-50's, which offer very little expansion to keep up with your needs and new technology. Nothing will out date your computer faster than running out of slots to add expansion cards to. My old PC can still do the job, but I can't run a color monitor with my modem. They both take cards in the same slot! The rest are filled with disk drive cards and a printer card. Four slots will just not make it any more. Clones seem to offer more slots than IBM or other name brands, I suppose because they aren't so interested in obsolescence for future sales. Whatever the reason, check the slots before buying. More on the CPU next month.//end