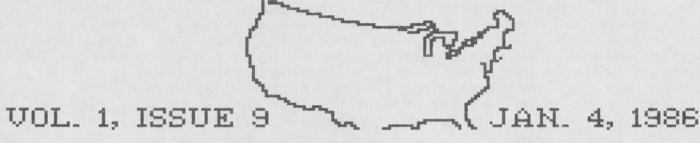
## TURFCOMMS



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

BUFFALOGRASS - Picked up a tip for planting this grass from seed while at the Texas Field Day. This grass needs a firmer seedbed than most for good germination. So if planting buffalograss be sure to roll your seedbed after planting with a heavy roller.

PENNCROSS TO STAY - Had heard a rumor that made a lot of sense. It said that Penncross would be

A phone call to Tee-2 Green Corpusing their 1-800 number (547-2055) to their 1-800 number (547-2055) got me a very firm denial. There was no chance that Penncross would be taken off the market in the next few years or even the more distant future was roughly the reply received. Well let us all hold them to their word. As mentioned before I do not see any good replacement. What about YOU?

ST. AUGUSTINEGRASS (Floratam) Agronomy J., Sept.-Oct.'85, study
reported on by Peacock and
Dudeck, Univ. of Florida. Irrigating
at 2, 3, 4, or 6 day intervals with
the same average daily volume so
that length of time between irrigations was the only variable they
found no difference in rooting between treatments. This does not agree with the research results of
others or generally accepted knowledge.

I assume from my experience with this grass that it should not be expected to behave like those others we are use to. END

TORO 350D - Have seen a move to using Toro"s new 350Ds for fairway mowing. The present model does not standup well when mowing hilly terrain. Otherwise this machine appears to be favored over similar models put out by competicompetitors.

PENDIDMETHALIN - One report of a slight leaf burn with pendimethalin when applied as direct-

ed to 419 bermudagrass fairways. END

PGRs - Embark sprayed on Meyer zoysia in the summer was reported at the Missouri Field Day to give a fall flush of growth and cause the zoysia to stay greener longer into the fall. While Cutless has been reported by some to give increased tillering on bermudagrass. FOR MORE ON PGRs (Plant Growth Regulators) see page three.

HELP WANTED

9 HOLE GOLF COURSE. Permanent year round or seasonal employment. Salary and benefits negotiable. Job description available. Send resume with experience and qualification to the Watford City Golf Course Box 53, Watford City, ND 58854 Phone (701) 842-3646 or 842-2341

Editorial Comments - Obtained a
GraphiCard from Practical Peripherals and The Newsroom software from Springboard for my Apple He. This front page is done using that combination. The GraphiCard will not let me use my Mailing List Database. So at present I pull out graphics card when I want to print labels or update address lists. END

For those using Ronstar (oxadizon) you should find that slightly lower rates can be used in succeeding years. END

SHORT BALL - Most people I talk to do not think the short "cayman" ball will catch on. But note, Ram is releasing its short ball version, RAM MD. So there are now two ball manufacturers and the American Modified Golf Association behind it. END

TURFCOMMS - After one year writing articles is still fun but, I would love to have some of you contribute. Distribution is coast to coast with subscribers in 22 states. As it is not copyrighted articles are reprinted in numerous other newsletters.

Yours for better turf,

## DRAINAGE, DRAINAGE!

Proper drainage rock is round: Use BBs, marbles(agates, "aggies"), old golf balls or cannon balls but, please do not use crushed rock. Crushed rock is great for road base. Use it for that not drainage. Remember ROUND ROUND ROUND. The rounder the material used the greater the amount of pore space a trench full of the material will contain. Size is not critical. Big is not better. The holes when using big rock are larger but, the total pore space does not change. Whether the trench be filled with perfectly round BBs or cannon balls the total pore space will be the same.

Pea gravel is most often recommended. Why? Because! Because it is large enough so that the surrounding soil particles do not easily plug it. Yet not so large that it is going to result in a lot of mower damage if it gets into the turf from the french drain.

Madison in his <u>Principles of Turfgrass Culture</u> has two excellent sections in the soils chapter that relate to this material. The first is Compaction and the second is Soil Building. I will somewhat misquote him and a poem he uses from Lao Tse to illustrate the importance of pore space. — — The use of the wheel to the wagon depends on the part of the hub that is void, the same holds true for a bowl, a house or drainage rock. It is the voids that are of value.

Proper drainage rock is uniform in size: Do not mix the BBs, marbles, old golf balls and cannon balls. Remember UNIFORM UNIFORM UNIFORM—IN-SIZE. Madison does an excellent job in the above two sections explaining what happens to the total pore space when you mix two particles of different sizes. Even pure sand if of the wrong shape and wrong size distribution will allow very little water through it.

Properly installed drains are deep: Not so deep you do not have an outlet. But the deeper the better. Sucks the water out better. The USGA has told us all for the last 20 years about perched water tables. They also have told us the deeper the mix the "droughtier" (drier) the surface gets. Or vice versa. Think about it. Then dig that trench as deep as possible. Remember DEEP DEEPER.

Properly installed drains have slope: This part gets tricky. Too much slope and the flowing water will pull the surrounding sand and gravel right into it and down the tube. Too little and with just a little settling the water flows no where. When going toward the outlet laying drainlines never decrease the % slope. Unless, you are going to put in a catch basin. Which are excellent devices for those locations in the roughs where a change in slope is desirable. Remember SLOPE SLOPE CONSTANT % OF SLOPE. 1/2 to 3 % is the normal range. A 1/2 % slope is 6 inches of fall (drop) in one hundred feet of drainline lenght.

Enough said on drainage! No not really. I believe Dr. Ferguson is the one who is quoted as saying, "DRAINAGE DRAINAGE DRAINAGE" when asked what three things fine turf needs. Do not forget those three.

Properly installed drains have surface inlets: If there is something new and exciting in turf drainage it is the increased use of surface inlets. They not only get rid of that surface water faster they allow visual checks on the system. Remember INLETS INLETS SURFACE—INLETS. Install surface inlets in slight depressions or create depressions for them.

Good luck be damned! Knowledge, know-how, skill, careful planning not luck makes for successful drainage work. Use it to the utmost in your next drainage project. Good digging, may all the stones be small ones. From a Damn New England Yankee who has found his share of big ones.

COUNTRY CLUB ANNUAL REPORTS - Saw one this summer that made my blood do a slow boil. It made the club administration look good and the golf course superintendent look like a big spender.

The accountant put all the members dues in the general and administration budget and only allocated green fees toward golf course maintenance income. Now I've seen some country clubs where green fee income was a nice healthy chunk of money but not big enough to begin to support the maintenance budget. I thought you paid dues at a country club to play golf not sit in the clubhouse.

Locker room, tennis and swimming pool lost money at this club also. Pro shop made a good amount. All the cart revenue went there while expenses for cart paths, new and re-surfacing, were charged to - YOU QUESSED IT - golf course maintenance.

Makes you wonder (as has been said many times before) how much cart, pro shop and dues income club administrators could generate without the 18 holes of golf, locker rooms, tennis courts and swimming pool.

## MH 30 + 20 YEARS = A NEW GENERATION OF PGRS

Have you been listening or reading lately reports on those MH 30 (maleic hydrazide) replacements? I just may be showing my age with that remark. Embark (mefluidide) and Cutless (flurprimidol), the latest "growth retardants", are truly plant growth regulators (PGRs).

Embark has been out a little longer than Cutless and there are some other PGRs also available. Embark is the one I'm most familar with. Research with it at low rates look very exciting. The cost is so low it is hard to believe. It is time you started to reread the articles on these products.

4 to 8 ounces per acre on Poa annua contaminated fairways at Poa greenup in the spring either kills the Poa or stops most all seedhead production. Imagine fairways that didn't turn white in late May! You didn't like the word "kills"? In that case make sure you get on no more than 8 ounces per acre. One more reported "benefit" better summer survival of the Poa annua in the fairways.

These rates have been used less successfully on greens. There have been some severe losses so be careful and make sure you get the rate correct. Best to stick to 4 ounces per acre if you have guts enough to do greens. I'm still a little apprehensive of this use.

Even of more interest is similar rates applied in November. These applications have resulted in significant increases in the other cool season grasses in the stand with a very significant decrease in the amount of Poa annua. Poa annua sprayed in November appears to very, very, slowly fade away.

## FOR SAND TOPDRESS USERS ONLY

Heard from Jim Moore, my USGA replacement, at a North Texas superintendents' meeting. He said, that soil test have shown deficient levels of phosphorus when taken only of the top inch on some greens that have not received phosphorus fertilizers but have received sand topdressing. Sure makes good sense to me if you have built up that much topdressing.

Now think where your roots are in hot July and August on those bentgrass greens. Not many live healthy roots below 1 inch come August on golf courses I visit in the southern bentgrass growing region. A little phosphorus and minor elements might help those bentgrass plants thru the summer months. A little Milorganite in early September might speed fall recovery. It would add phosphorus plus minors.

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