

TURF COMMS



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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.

EMBARK UPDATE

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Have an East Coast report that states fall applications of Embark at the rate needed to kill *Poa annua* (annual bluegrass) are too damaging to Kentucky bluegrass to make it very safe. Therefore, if you must try it make sure, it is just a trial. Or be prepared to seed a week later with Kentucky bluegrass or perennial ryegrass. The latter is not a bad idea anyway in heavily *Poa annua* populated areas. END

THE IDEAL SAND

The ideal sand for topdressing greens is often difficult to find. This is especially true west of line going north from San Antonio thru Oklahoma City, Wichita, and north from there. But, regardless of where you are located you will quickly learn that few sand companies regular produce the ideal sand for either topdressing or putting green mixes.

I favor a sand which would be in the upper limits of the USGA range and probably exceed their range in some aspects. The sand I have come to prefer for topdressing and for mixtures has less water holding capacity and a faster percolation rate than the USGA soil laboratory might wish to recommend.

An acceptable sand should have the following properties:

- (1) It should be a silica sand.
- (2) It should neither be perfectly round nor sharp.

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(3) Less than 15 % should stay on a 35 mesh sieve, and less than 8 % should go thru a 140 mesh sieve. Or, put in other terms few particles should be larger than 0.5 mm in size and few smaller than 0.125 mm.

(4) When compacted it should allow water thru it at the rate of 10 to 25 inches per hour.

Sands composed of large amounts of carbonates are commonly sold under two conditions. In arid regions calcium and magnesium carbonates caliche often coat silica particles. They have essentially precipitated out of the soil solution over the years. The second situation is in areas where limestone is mined for agriculture lime and crushed rock. In this case large amounts of limestone is available in the sand particle size range. Limestone is calcium and magnesium carbonates.

Be careful when encountering round uniform size sands, they are good for drainage but not for soil mixes. When present to too great an extent and all of similar size they will hold almost no water. These sands are commonly sold as "frac" sands to the oil industry.

If you are on a sand topdressing program and your greens are unusually firm it might well be the sharp shape of the sand particles. Read "Bunker Sand Selection" in the July issue of Golf Course Management. This article does an excellent job of pointing out the tremendous effect the shape of the sand grains have on how they behave when a ball is hit into them. What they do not point out that this is the case whether the sand is used on greens as topdressing or in bunkers.

Particles in the 0.5 to 1.0 mm range can be tolerated reasonably well. These will pass thru a 16 mesh but not the 35 mesh. Particles larger than 1.0 mm are more easily tolerated when filling aerifier holes than when applying light topdressings. Finer particles than 0.125 mm are not desirable. They tend to rapidly lower the rate at which air and water enter the soil mix. One would prefer that most particles were larger than 0.25 mm. Thus most particles should be retained on a 60 mesh screen.

Some have expressed concern with the fact that I prefer a higher percolation (infiltration) rate than called for by USGA specifications. USGA specifications are for putting greens mixtures, and their range is 4 to 10 inches with 4 to 6 preferred. I prefer 6 to 10 in a mix and I am not at all opposed to a higher rate. You can always add water and nutrients but you have trouble adding drainage. Also in most areas the tendency is for the delivered sand to have a somewhat slower percolation rate than that which was brought in for the test. I have yet to see it go the other way although that is possible.

A sand that falls near the low end of my suggested range (10 to 25 inches/hr.) will probably plug easily with wind blown silt and

normal root activity. A sand at the upper end (20 to 25 inches/hr.) is approaching the properties of a "frac" sand and might tend to result in undesirable layers if used in a light infrequent topdressing program.

Please note that no one of the physical properties of size, shape and infiltration rate will by itself accurately predict what will happen when organic matter and dust is added to the sand. Also neither one of the physical properties by itself tells you what the other two properties are. Testing is best. END

MONDAY CLOSINGS

The club that has a firm policy of closing on Mondays is to be congratulated. Its philosophy of allowing the superintendent and his crew the opportunity of giving the club one full day's work uninterrupted by play and the turf a rest will provide the membership with better turf for less maintenance dollars.

It is very difficult to get certain operations such as aerifying greens and fairways done when the course is open. Also, operations such as applying pesticides are best done when the course is closed to play.

A well organized crew can get almost as much work done on Monday when the course is closed as they can on any other two days of the week. By not having to avoid play, mow greens, move tee markers, or change cups, manpower is free to do operations that require large amounts of labor.

It is much easier to repair irrigation leaks and other maintenance on the playing surfaces when one is not constantly looking out for incoming golf balls. It is easy for someone to say ignore the golfers, but they cannot be ignored. One, because at most clubs members will not stand for it, and two, because the well hit golf ball cannot safely be ignored by a worker in the middle of the golf course.

Let's keep the golf course closed on Monday. END

MORE COMPUTER TALK

Spent a fair percentage of my hard earned money upgrading my Apple //e I added a second disc drive and an 80/64e card by Microsci to add another 64K of memory to the 64 my Apple had. If the price on an Applied Engineering card had been even close to the price of the 80/64e card I would have preferred it. The card I have does not respond well when its memory is near to capacity.

It has though allowed me to run some software the computer could not handle before.

One of the two programs I am now running is WPL.Auto which is a series of small support programs for the Apple Writer // word processing program. It has been a help if you wish more information on that write or call.

A second program I recommend to all using any word processing program. Webster's New World Spelling Checker is a real fine and easy to use piece of software for either the Apple or the IBMs and the latter's compatible copycats. It works with most word processing programs. I was able to correct material after reading only 2 pages of the user's guide. Very smooth and easy to use. Very embarrassing to find all those spelling errors when going over old Turfcomms for a special advertising issue of reprints.

For those of you thinking of buying a personal computer. Buy IBM or one its compatible copycats. Be careful about the copycats some are definitely better than others. In the personal computer(PC) market Apple, IBM and Radio Shack appear to dominate.

In the turf industry it is IBM and compatibles clearly dominating. Of 30 superintendents I visited in June, 4 were using computers. All four were using IBMs or compatibles. Lon Camp, superintendent at Happy Hollow C. C., is really on the way to mastering his IBM. There are some good reasons for buying Apples - your children may well be use them in the schools, or you want to go into desk top publishing. For the latter buy a Macintosh by Apple.

What can a computer do for you. Make report and letter writing almost fun. Make budget preparation after the first year a breeze. Make record keeping more fun and profitable.

Buy your computer when you have a lot of free time to invest in learning how to use it. The new programs are easier to use, but you will still need to spend a lot of time learning. But, that learning will bring you in to the 21st Century ahead of the pack or at least with it. In Texas now for the last two to three years every eight grader has taken a half year of computer literacy.

Next on my list of additions to my system is a modem. Then sharing information will be even faster.

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