

## PROSCAPE

By Michael Hurdzan, Ph.D., golf course architect and consultant

**Q:** We plan to reseed our tees and fairways to bluegrasses. Which ones are best?

**A:** The precise "best ones" for your tees and fairways depend on the effective climate of your golf course, properties of the soils, and your management operation. Although there are many improved bluegrasses on the market, some appear to be better adapted to certain cultural conditions than others. By analyzing the cultural conditions on your golf course and seeking test results or field experience produced under similar conditions, the best ones will be evident.

The effective climate of your golf course is the total spectrum of limiting growth or survival factors such as high and low temperature extremes, associated relative humidity, air movement, altitude, sun angle or facing slopes (north or shade slopes vs south or sunny slopes), and the surface and subsurface drainage. An intelligent integration of these factors will indicate which experiment station or turfgrass evaluation site is most like your course.

It could be that if your course is on the north side of a Tennessee mountain that a turfgrass test area with the effective climate most like yours is found in Michigan. Similarly, there are areas in river basins of Kentucky that could get their most meaningful information from Georgia. Plants do not respond to state boundaries but rather they react to a multiplicity of environment factors. After assessing the climate, blend in the growth permitting properties of your soils including drainage, the chemical, and the physical characteristics of the soil.

Since soil modification over areas as large as tees and fairways is impractical, the turf cultivars selected should have proven ability to grow vigorously in your soils. If such information is not directly available from a research site, check with other turf managers near you that may have similar cultural conditions that may have some experience with the cultivar that interests you. However, the most reliable procedure is to put in a small test plot or several plots and evaluate the cultivars yourself.

**Q:** In order to insure turf and planting compliance with government contract plans and specifications, with very limited inspection, what techniques, procedures, and recommendations can be given?

**A:** I do not believe that there is any substitute for inspection. We have consistently found that the quality of the work received is directly proportional to the inspection that we give it and thus we base our fee on providing that inspection. If for some reason you can not provide that inspection, then require the contractor to guarantee his work

for at least one year and have him provide the owner with a maintenance bond.

On golf courses we require the contractor to produce "an established stand of grass in those areas where he can irrigate" as part of the specifications and his contract. This means that the contractor shall provide post-planting care that may extend for 6-8 weeks past germination. The contractor uses the owner's equipment, but he is required to water, fertilize, and mow as needed during this period. When the contractor must guarantee the results, he finds it is cheaper to adhere rigidly to the plans and specifications no matter how often he is inspected.

**Q:** Sand base turf fields for sports require repeated topdressing with sand similar to that used for the base construction. To my knowledge, there is not a spreader on the market to apply such quantities of sand uniformly. A large seed drill, converted to a spreader with reinforced box and a central floating wheel and tire to displace some of the load would do the job. Although the demand is there, no one seems interested in meeting it. Do you know of anything to fill the bill?

**A:** I do not know of anything, but your idea sounds interesting and may work very nicely and inexpensively if you can find an old seed drill. If you should decide to build such a spreader and you are satisfied with its performance, please send us some pictures so we pass it on to our readers.

Although there are good small topdressers available on the market, many turf managers still find that they do not fill their specific requirements. This dissatisfaction with factory models is a result of widely varying attitudes about type, consistency, and dryness of the topdressing mix and the amount that each manager wants to apply. For this reason I doubt that any one topdresser would be acceptable to all people. However, several other suggestions of equipment used by others may spark an idea for you.

An old lime spreader is used by some, with and without modifications. This unit usually has a strong materials box and undercarriage and only wider, flotation tires are needed for turf use. Some have tried rotary attachments to small dump trucks similar to those used in road salting operations (with much greater capacity, though) and thus spread pure sand right from the truck. Others are using a pull type, rotary spreader equipped with a "sand ring", only filling it about 1/2 to 3/4 full to keep it stable and reduce compaction. When using the sand ring, some superintendents use the unit as is, some use the deflector shield to limit throw to 18-20 feet wide, and others have modified the spinner by either lengthening or shortening the impeller or spinner arms depending on the materials and the result that they want. **WTT**