

## MAINTENANCE CHALLENGES WITH A SAND (P.A.T) FIELD

Russ Woodruff  
Grounds Supervisor  
Lansing Public Schools, Lansing

The prescription Athletic Turf (P.A.T.) football field at Sexton High School was built in 1975. As the diagram shows, the field consists of turf growing on a sand base with heating cables and drainage tile in the sand. The heating cables are used to keep the field surface from freezing during late season games. They do keep the surface from freezing, but in very cold weather, they do not melt snow. Perhaps in conjunction with a vented cover, they would be more effective. Slitted tile are used to drain water from the field or to add water to the field through sub-irrigation and to maintain a stable playing surface. Pumps are also used to help remove excess water from the field. Opinions differ as to the effectiveness of the pumps. My opinion is that the pumps do help remove water which normally would not drain off freely.

Time, more precisely the lack of it, compaction, and Poa annua are the three major problems faced on our field.

The lack of time and/or manpower inhibits us in properly maintaining this type of field as it should be maintained. During the spring months when the field needs extra attention to get it off to a good start, our personnel are busy getting baseball fields, tracks, softball fields, tennis courts, and physical education fields in shape for spring activities. Mowing also begins in earnest and takes its share of time. Mix in unpredictable weather and the finding of extra time to work on the P.A.T. field is difficult to find.

The P.A.T. field should be topdressed at least three times a year with sand. We are lucky to get the field topdressed once in the spring. Ideally, I would like to see much more hand work performed on the center of the field. If the aeration core holes could be completely filled with sand, the drainage would be improved remarkable, and a better turf would result. Once again, time is a limiting factor.

During the summer, mowing slows down, but irrigation more than makes up for it. We like to surface irrigate when possible because the turf seems to respond better than if sub-irrigation is used only. Rain trains with a one inch hose, are used for our surface irrigation. Set up and take down of this equipment for irrigation of football fields, baseball fields, and practice fields take time. Vacations, and summer projects also remove needed manpower. I have been fortunate to have good personnel who work at the field, but they can do only so much when there are numerous demands on their itme.

Playoff games in November end a season which usually sees 25 to 30 games played on the field. The late season games sometimes cause problems for end of the year maintenance on the field. Dormant fertilizing and general repair of the field before winter, are hampered by poor weather conditions often in mid-Novmeber. We like to dormant fertilize with 20-4-10 to end the year which sees us apply about seven pounds of N per year. Two additional dressings of potash are also applied to correct a potash deficiency caused by leaching in the sand.

Compaction has become a problem in the center of the field. We have aerated, sliced, and used wetting agents to try and get better water penetration through the soil into the sand. I'm sure with a good top dressing program we could reduce compaction and greatly enhance the drainage

capabilities of the field. Poa annua has been a problem since the field was constructed. We have managed to hold it in check for the past few years with various cultural practices. The amount of phosphorus has been reduced in the fertilizer program, and a vigorous overseeding program of spot seeding divots and bare areas with Manhattan perennial ryegrass and Touchdown Kentucky bluegrass has been carried out. Hopefully with the help of the research being done at M.S.U. a method will be found to control Poa in a football field.

Doctors Rieke, Vargas, and Payne have been of great help in working with the field. I have been fortunate in having this fine university and staff right next door. I'm sure I'll be looking to them for answers in the future as new problems arise.