Budget-Oriented Athletic Field Care

Dr. William Daniel, professor emeritus of soils and crops, Purdue University, IN, has developed a three-tiered athletic field care program designed to fit any budget. His hope is to get fields that aren't currently maintained onto an economy program. As the benefits of maintenance are realized, managers of these fields can move up to an improved care program or, the ultimate, best care program.

Daniel says for best performance athletic fields should meet three requirements: surface water must not accumulate; the surface should be smooth and stable; and turf should be in good condition for safety and appearance.

Timing of maintenance practices is the most significant element in any turf care program, according to Daniel. He says it's better to start early than to put athletic field maintenance off until the last moment. A fixed routine can help prevent problems with timing and maintenance frequency.

The economy program concentrates on the basics. Daniel recommends an application in mid-August of a minimum of 50 pounds of actual nitrogen per standard football field. If the entire area inside an oval track is fertilized, then 100 pounds are necessary. This amounts to 100-200 pounds of 45-0-0 fertilizer or 300-500 pounds of 16-4-8. A second application of fertilizer should be made in mid-season.

The field must be watered if at all possible. Daniel urges those managers without irrigation systems to consider a traveling type of irrigator with automatic cutoff. These sprinklers travel along a 400-foot cable. A one-inch hose, 200 feet long, is attached to a water source near the 50-yard-line on the side of the field. The hose can then reach the entire length of the spray pattern.

Mow as high as practical, says Daniel, rather than as low as possible. It is important to maintain as much leaf surface as practical to provide maximum protection against wear and cushion. The extra leaf surface also encourages deeper rooting and provides energy within the plants. Mowing height of two inches is considered average for Kentucky bluegrasses and perennial ryegrasses. Mow in mid-fall to help the turf recover from game damage. Immediately after the playing season ends, mow worn areas with organic material.

In early spring fertilize with a soluble nitrogen source. Apply one of the preemergence herbicides in April to prevent crabgrass from germinating. Mow the turf before application since these materials must enter the soil to be effective. Water them in soon after application.

In June or late May kill broadleaf weeds and knotweed with an application of 2,4-D and dicamba.

As summer practice begins, protect key wear areas of the field from unnecessary traffic. Encourage the coaches and band director to use other areas whenever possible.

The improved care program utilizes turf fertilizers high in nitrogen, low in phosphorus and medium in potassium. Daniel suggests a portion of the nitrogen be in slow-release form. He says apply two to three pounds of nitrogen per 1,000 square feet as a 16-4-8 fertilizer in mid-August.

Until August 15, water only when wilt starts to show. If in doubt, says Daniel, don't water. After August 15, water more frequently as needed to keep the field healthy.

Mow the field in the summer at two inches and lower it to 1/2 inches at the beginning of the season. Overseed before every home game with improved, more disease-resistant Kentucky bluegrasses and perennial ryegrasses. Fertilize in mid-fall to help the turf recover from game damage. Immediately after the playing season ends, mow worn areas with organic material.

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Selecting Field Colorants

There are times when colorants are needed to improve the appearance of sports fields. There are times when colorants are needed to improve the appearance of sports fields. Sports turf managers should not be embarrassed when they need to use colorants, says Bill Rhymes of Mallinckrodt. The appearance of a field is often as important as its general condition.

Rhymes says there are several different types of colorants, including wettability powders, ready-to-apply liquids and concentrated flowables to be diluted with water before spraying. These products are classified into three groups, organic dyes, inorganic dyes and paints.

Generally, organic dyes are short-lived and are used primarily as spray indicators. Inorganic dyes last several days. Paints last several months.

The most widely used colorants are on dormant grass. For years, superintendents of major sports stadiums have used colorants to touch up dormant or off-color turf. However, these materials also can be used on actively growing grass.

In addition to improving the overall appearance of an existing field, colorants help conceal some of the edges or soiled areas of newly installed sod. They can also be mixed with topdressing materials such as sand to make divot repairs blend in with the existing turf.

Rhymes says be sure to use only those colorants made specifically for turf. Seek products that, when dry, do not rub off or stain uniforms. Note any variations in color between products and select the colorant that matches your turf most closely. Ask your distributor if you can have samples to do test areas next to your field.