

Athletic Fields Turfgrass Management



Annual Bluegrass (*poa annua*)



Dollar Spot

Welcome back to another school year! I hope that everyone had a great summer and is now getting geared up for another exciting year. It is time for athletics to begin again and having a high quality turf is very important in the safety of the players and to the aesthetic value of the field.

In order to have a high quality turf, maintenance and pest control is extremely important. The right maintenance practices help the turf to grow lush and healthy, which improves pest resistance.

Preventative Measures and Treatment:

Physical measures: Establishing buffer zones by removing pests from around the athletic field can greatly reduce infestation in the field. This especially helps with weed control. Make sure that all fence lines and border areas are clean and weed-free. Removing small infestations of pests can be done before the problem becomes major. Also, removal of shady areas wherever possible will reduce turf stress.

Cultural measures: Constant use of the following cultural lawn care practices will provide high quality turf and successfully limit weed, disease, insect and other lawn problems.

Irrigation is a balancing act. Too little, and the turf will go dormant. Too much, and money and a precious natural resource will be wasted while making the turf weak and susceptible to pests. It is difficult to maintain an athletic field without periodic irrigation. The ideal for turf irrigation is to irrigate deeply and infrequently. A typical athletic field usually needs somewhere between one and two inches of water per week including rainfall. Irrigation should be a supplement to rainfall and should be adjusted if rainfall occurs. Good irrigation wets the entire root zone. To wet the entire root zone, ½ to 1 inch of water may be needed, depending on the soil type. If irrigation is needed it should not be put out faster than the ground can absorb and should not be deeply irrigated just prior to high traffic activities, such as a game.

Mowing is the most commonly practiced maintenance procedure for turfgrass, yet it is often taken for granted. Proper mowing promotes deep rooting and encourages a dense stand of turfgrass, which keeps out weeds through competition for nutrients and sunlight.

Hybrid Bermudagrass (ex: Tifway & TifSport) fields should be mowed between ½ inch and 1½ inches and Common Bermudagrass should be mowed between 1 and 2 inches every 3 to 5 days with a sharp blade. A good rule to follow is to not take more than 1/3 of the leaf blade off at any one time and for any mowing height that is lower than 1 inch a reel mower should be used. Fields under environmental stress such as drought, heat or shade should be mowed at the higher end of the optimum mowing height range. Make sure that mower blades are sharp. Dull blades tear and shred the leaves instead of cutting them. This causes the tips to dry out and brown and is a good point of entry for diseases.

Aeration helps to reduce compaction and thatch build up. Compaction makes it very difficult for the desired turfgrass to have a dense stand and allows for weeds to come in and take over. Thatch is a reservoir for insects and pathogens to cause major problems. Aeration is used to reduce the extent of these problems and should occur more frequently in areas that are compacted by frequent foot traffic or athletic play. Aerate athletic fields a minimum of two times per year during the grass's growing season. Aerate when soil moisture is at field capacity. If moisture is higher or lower, cores would not easily move to the surface. Aerate when the turf is actively growing and not under stress.

A **soil sample** should be taken every 1-3 years to determine the need for fertilization. The two biggest mistakes made when fertilizing are fertilizing at the wrong time and using too much fertilizer. Warm season grasses, like bermudagrass, should be fertilized in the summer. The most common mistake with these grasses is fertilizing them too early in the spring. Wait until after the last frost to fertilize. When the field is fertilized, it produces new, tender shoots, just the kind of growth that is most easily killed in a late frost. Use the soil sample recommendations for fertilization to keep the turf at a high quality.

Over-seeding with winter ryegrass may be employed, if it works with the athletic field schedule. The best time to plant winter ryegrass depends on weather, and should wait until the daytime temperatures are consistently below 85° F to improve germination.

IPM places a heavy emphasis on scouting pests and knowing about pest life cycles and the various management options available. Identifying and scouting for pests helps a field manager determine major pest problems and allows for them to establish an Integrated Pest Management Plan.

By knowing about the pest's biology and how management options work, the right management techniques can be practiced for optimum control with less chemical use.

Major Weed Pests: crabgrass, dallisgrass, goosegrass, Annual bluegrass (*poa annua*), sedges, chickweed, clover, Virginia Buttonweed

Major Disease Pests: Spring Dead Spot, Dollar Spot, Brown Patch, Leaf Spot, Pythium Blight, Fairy Ring

Major Insect Pests: White Grubs, Mole Crickets, Fire Ants, Spittlebugs, Fall Armyworms

Other Major Problems: Drought Stress, Soil Compaction, Shade Stress, Drainage Problems, Nutrient deficiencies

Chemical controls should be employed only on an "as-needed" basis when problems exist that have not been or cannot be addressed by other control methods. There are many different products available for use. Identify your problem first and then determine the best choice for control.

For more information on Athletic Fields and general turfgrass questions Contact and/or reference:

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Weeds of Southern Turfgrasses (ANR-616)
Distributed by Alabama Cooperative Extension Service

Common Insect and Disease Pests of Turfgrasses and
Ornamentals in Alabama (ANR-910)
Distributed by Alabama Cooperative Extension Service



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