

REMEDIES FOR FAILING FIELDS

Dr. Gil Landry, University of Georgia

The more we know about basic turfgrass management the easier it is to diagnose problems. Like the coach that is able to correct small basic problems, most successful sports turf managers recognize and correct factors limiting turf growth. These factors can be separated into three groups: 1) climate factors like temperature, moisture, light, wind, and air or gases; 2) soil properties like physical, chemical and biological factors; and 3) management factors like turf use, mowing, fertilization, irrigation, and pest problems. The better we are at identifying and correcting the most limiting factors, the more successful our turf management will be.

You know what they say, "pay me now or pay me later." Proper construction is a good example of this axiom and has immediate and long term benefits. Fields improperly sloped will have poor surface drainage which will lead to higher soil moisture which in turn leads to more soil compaction. It is also important to account for dispersal of surface water and water from bleachers and other facilities during design and construction. It is quite common to find a new recreation facility where removing surface water beyond the field surface was not considered, hence a sidewalk ends up becoming a dam. Even if a field is properly constructed, proper maintenance after construction is still important.

Like a great game plan is essential to success, proper soil preparation can have a significant effect on field management. Simple deep cultivation prior to establishment has an immediate and long term effect on turf management. Simply saving and replacing topsoil during construction also is very helpful. It's simple, the better the soil characteristics, the easier and less expensive a field will be to manage.

Another important factor is using the right turfgrass species and cultivar for the situation. Bermudagrasses are hard to beat when it comes to sports field performance. It is very common to find more than one type of bermudagrass on a field. The differences in bermudagrass types are generally more pronounced during spring and fall as the grass begins to grow or go into dormancy. Sometimes patches of grass may appear to be diseased when it is simply a different type grass.

Differences are minimized during the summer when being fertilized regularly. Obviously differences in traffic tolerance and winter hardiness are very important in the transition zone. Ideally we would like a turfgrass with both good winter hardiness and traffic tolerance. However, this combination can be difficult to find.

Field use and field overuse are basic facts of

sports turf management. So focusing cultural management practices on areas more intensely used like soccer goal mouths or between the hash marks of football fields before the turf injury is obvious helps. Knowing soil textures, whether your soils are sandy or finer textured, will help you determine the frequency of irrigation, fertilization, and cultivation. In most cases, soils with more than 75% sand are easier to manage because of their improved drainage and manageability.

Soil compaction is often considered Sports Turf Enemy #1. Using a soil probe or even a screwdriver helps determine soil compaction. Early drought stress, thinning turf and weed encroachment are all also common indicators of soil compaction. Vigorous growth in irrigation or other trenches may be a sign of good soil conditions while the surrounding compacted areas lack color and vigor.

Coring is most effective when the turf is actively growing and prior to the most active root growth period. Some bermudagrass fields are aerified weekly although monthly aerification is probably more common. However, heavy aerification
continued on page 10



1926 Acton Hwy • Granbury, TX 76049
1-888-NEW GRASS
639-4727

GRASS

Ours **IS** Greener
On Your Side Of
The Fence!

SAND BASED
SOD

BAyr Root
Turf

42" Big Roll
SOD

Products & Services You've Trusted
For More Than **25** Years!!

STMA NAMES TOP FIELDS

Awards were presented for top maintenance of natural playing surfaces and support facilities in four major sports areas: baseball, softball, football and soccer.

The Football Field of the Year Award was presented to Casey Field of the City of Covington, Virginia. Director of Parks and Recreation for the city is Allen L. Dressler.

The College Soccer Field of the Year Award was presented to Pleasant View Sports Complex of Boulder, Colorado. Ms. Abby McNeal is the Turfgrass Manager at this Complex.

The High School Soccer Field of the Year Award was presented to Flinn Memorial Stadium, of the Quincy Public Schools, Quincy, Illinois. Kurt Knuf is turf manager for the facility. For the first time in STMA history, a field was selected Field of the Year in two different categories, in two successive years. Flinn Memorial Stadium was named High School Football Field of the Year at STMA's 1997 Conference.

The Softball Field of the Year Award was presented to the Joy Christian Complex of Bellevue Baptist Church of Cordova, Tennessee. Robert A. Bodi is Director and Clifford Smith is Supervisor of this Complex.

The baseball field awards, deemed the Beam Clay® Baseball Diamond of the Year Awards, are given in three categories. These awards are sponsored jointly by STMA, sportsTURF magazine, and Beam Clay®.

The Beam Clay® Professional Baseball Diamond of the Year Award was given to Hoover Metropolitan Stadium, home of the Southern League Double-A Birmingham Barons. This is the first time the same Head Groundskeeper has been honored twice for his work at two different facilities and at two different levels of baseball. Steve Horne was Head Groundskeeper/Stadium Manager at the University of Mississippi when Swayze Field was selected "College Baseball Diamond of the Year" for 1992. Steve is currently Director of Field Operations for the AAA Memphis Redbirds. Mike Zullo, who was Steve's assistant at Birmingham, is the new Head Groundskeeper for the Barons.

The Beam Clay® College Baseball Diamond of the Year Award was presented to Liberty University's Al Worthington Baseball Stadium in Lynchburg, Virginia. Honored for this achievement were: Dave Pastors, Head Baseball Coach; Randy Johnson, Director of Field Operations; and Brock Van Faussien, Baseball Groundskeeper.

The Beam Clay® Diamond of the Year Award in the Schools, Municipalities, and Parks category went to Potter Park Field of La Junta, Colorado. Michael Sexton, Director of Parks & Recreation; Tony Madrid, Maintenance Coordinator; and Richard Sandoval, Recreation Coordinator; along with their five person part-time crew were honored for this achievement.

STM

Remedies for Failing Fields

continued from page 5

during stress periods can cause significant root decline. Proper mowing may be very important to turf performance. Mowing at the proper height and frequency maintains a dense turf that is more wear tolerant and quicker to recover. Higher mowing heights reduce the number of growing points per unit area which results in a more open turf. Hybrid bermudagrasses may be mowed between 0.5 and 1.5 inches. As the mowing height increases above this upper range, turf quality decreases, and athlete slippage tends to increase. Common bermudagrass generally should be cut one inch higher than a hybrid. Close mowing, particularly late in the growing season, may increase winter injury, so allowing extra leaf growth at that time of year often provides more protection

continued on page 15

Members on the Move

Michael Zullo, former Assistant Head Groundskeeper with the Birmingham Barons is now Head Groundskeeper.

Walt Cargile, former student member, is now the Assistant Head Groundskeeper with the Birmingham Barons.

Martin K. Kaufman, former Assistant Groundskeeper in Greensboro, NC is now with the Charlotte Knights.

Matthew Clement has taken the position of Grounds Manager at Taft School, Watertown, CT.

CONGRATULATIONS GUYS!!

If you, or someone you know, has changed positions, give us a call here at Headquarters.

We'll be happy to help get the word out!

Employment Opportunities!!

The **University of Virginia** has an opening for a Head Groundskeeper/Agronomist.

The **Los Angeles Dodgers** have an opening for an Assistant Field Superintendent.

The **Miami Dolphins** are seeking a Grounds Superintendent and/or Assistant.

The **Oakland Athletics** have openings for an Assistant Groundskeeper, Spring Training Grounds Crew and Various Internship and Grounds Crew positions.

HersheyPark has an opening for a Stadium Grounds Specialist.

For more information on these openings contact STMA Headquarters at (800) 323-3875 OR call the Jobs Hotline at (712) 366-1145.

Remedies for Failing Fields

continued from page 10
to growing points.

Understanding and identifying the first signs of drought stress is important to proper water management. Turfgrasses don't need water unless they are showing signs of moisture stress such as turning off color (bluish grey) and allowing foot prints to be seen for an extended period. The basic rule of one inch of water per week of active growth applied in a single application is still a good rule of thumb. Lighter, more frequent irrigation encourages shallow rooting and moist soils more easily compact than dry soils. So, if possible, don't irrigate 24 to 48 hours before field use. Perhaps running a system on successive nights to apply one inch is more effective than applying all the water at once. Don't forget that an irrigation system is a machine and like any machine it needs routine maintenance. Often budgeting time and resources to irrigation maintenance is overlooked.

Soil fertility problems often are very subtle. Normally, rapid greening and increased

Ground Breaking Innovation

BioGain™ WSP® & BioGain™ WSP® (Fe)

The industry's first biostimulants available in
Water Soluble Packets!

BioGain contains natural humic substances, cold water kelp and a proprietary blend of natural sugars, vitamins, amino acids and beneficial bacteria. BioGain (Fe) contains 10% fully chelated iron for maximum tank mix flexibility.

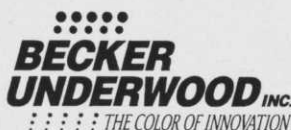
Canteen™

Spreader and Soil Penetrant Derived From Yucca Plant Extract
Canteen is a performance-enhanced soil penetrant and spray adjuvant derived from *yucca schidegera* plants, a unique species of cactus that produces natural sugars which enhance soil microbial activity.

LakePak™ WSP®

Biological Lake Clarifier and Deodorizer

LakePak is a concentrated microbial-blend of beneficial bacteria that biodegrades nutrients, organic matter and hydrocarbons in ponds and lakes.



Becker Underwood

801 Dayton Avenue • Ames, Iowa 50010
Tel (800) 232-5907 • Fax (515) 232-5961
email: request@bucolor.com
http://www.bucolor.com

YOUR ONE-STOP SOURCE FOR AMERICA'S LEADING BASEBALL SURFACES & SUPPLIES!



**USED BY OVER 100 PRO TEAMS!
PLUS 8 OF THE LAST 10 WORLD SERIES CHAMPS,
OVER 500 COLLEGES, AND THOUSANDS OF
TOWNS & SCHOOLS WORLDWIDE!**

800-247-BEAM

FAX: 908-637-8421 908-637-4191 GSA #GS-07F-6143A

**DISTRIBUTION CENTERS NATIONWIDE!
OVER 200 INFIELD PRODUCTS
FREE INSTRUCTIONAL BROCHURES**

**Introducing REGIONAL INFIELD MIXES
BLENDED FOR YOUR STATE & CLIMATE!**

growth result from N fertilization. However, if the soil pH drops from 7.0 to 4.5, N, P, K and other nutrient efficiencies decrease dramatically. So just because you don't see the normal response to N does not mean it is an N problem. Hard, compacted soils also may show similar problems. On sandy soils perhaps nematodes or other insects may be affecting fertilizer response. Excessive use of N provides beautiful color, but also increases water and mowing needs, and can significantly reduce traffic and other stress tolerance.

Finally, often the most difficult part of a sports turf manager's job is communicating his needs to produce the quality fields that people expect. Often good photographs of the good and the bad help explain situations. It is very difficult to find that "common" ground to communicate with administrators that sports fields are biological systems that respond according to a complex system of environmental and management factors. Being able to show symptoms usually helps explain problems. One very common oversight is the lack of consideration for increased field use without increased turf management.

This article is a reprint of Dr. Landry's handout at the Round-Table discussion at the Conference.

STM