Informed Decision-Making Leads to Successful Sports Field Management

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Informed Decisions on:
• Field Repair
• Material Selection
• Field Layout

Eliminates Guesswork
Guarantees Success

What causes this problem?
The cause is most often misdiagnosed which leads to the wrong treatment.
Problem exists from youth fields to professional fields.

Possible causes:
- Poor surface drainage
- Grass lips
- No underdrains
- A hidden problem

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The problem is caused by a grass hill at the edge of the skinned area.

That's because the hill is very well camouflaged by the grass.

Hills are started by dragging skin material into the grass edge.
Taking action to fix the problem:

- Check the outfield grade (percent of slope) to make sure it slopes away from the infield.
- Record two elevations at multiple locations around the infield arc— one at the bottom of the grass hill and the other at the top.
- Use the outfield grade to calculate the proposed elevation at the edge of the infield.
13	14

15	16

Summary:
Solutions are not as obvious as one may think.
In this case, what is done most often is the
addition skin material to fill in the low spots. It
seems logical, if there’s a low spot, just fill it in.
Don’t keep adding soil year after year. That just
makes this problem worse.
Remove skin material that accumulates in the
grass by removing lips regularly.

What causes this problem?
Not enough seed and/or fertilizer
Too many events
None of the above
All of the following:
Flatten crown
Compaction
Seed instead of sod
Percent of Slope
A common link between all outdoor sports facilities all over the world

Tools Needed to Find the Percent of Slope
Finding the Percent of Slope

Use two math operations: Subtraction and Division

Take two elevations on the field:
• Subtract one elevation from the other
• Divide the answer by the distance between the two

Percent of Slope Example

Subtract one elevation from another
101.00 – 100.00 = 1.00 ft.

Divide the answer by the distance between the two. (The distance is 100 ft.)
1.00 ÷ 100.00 = .01 or 1%

Other Problem Solving Practices
Using the Laser Level to Find Percent of Slope
Material Selection

- Within the owner’s budget, readily available, and within maintenance capabilities
- Fit for the level of competition using the field
- Sports field specific
Follow Rule Book Requirements and Recommendations

Rule Book Requirements
• Correct field dimensions
• No obstructions in the field of play
  Sprinkler heads should be even with the playing surface
  Fence bottom should be secure and not protrude into the playing area
• Maximum height of cut for the grass
• Lined spectator areas

Foul line layout is not in any rule book
POINT TO MEASURE AND SET UP THE FOUL LINE

FOUL LINE IS FAIR

BLACK BEVEL IS BURIED

STRING LINE

USE THE BACK WHITE POINT TO MEASURE AND SET UP THE FOUL LINE

FOUL LINE GOES UNDER THE BASE

STRING LINE GOES AGAINST THE OUTER EDGE OF THE BASE

NOTE: REMOVE THE BASE TO APPLY THE CHALK

MLB FIELD LAYOUT TRIVIA

• DISTANCE FROM HOME TO THE FRONT EDGE OF THE PITCHERS PLATE? 60' 6" 

• DISTANCE FROM THE FRONT EDGE OF THE PITCHERS PLATE TO THE OUTFIELD ARC? 95'

• 1ST AND 3RD BASE ARE 90' FROM HOME TO THE FRONT? MIDDLE OR BACK OF THE BASE? BACK

• 2ND BASE IS 90' FROM 1ST AND 3RD BASE TO THE FRONT? MIDDLE OR BACK OF THE BASE? MIDDLE

• DISTANCE FROM HOME TO 2ND BASE? 127' 3 3/8" OR 127.28'
Who You Are

Jeffrey Krans
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How you see yourself?

• Job Title
  – Manager, Asst. Manager, Director, Superintendent...
• Degree Title
  – 2 yr, 4 yr, or Associate Degree or Certificate of Completion or STMA Certification
  – What is your degree?

Agronomist or Horticulturalist

– Use Your degree title
– An individual having an understanding of the principles and concepts of plant and soil science with application to agronomic and/or horticultural plants.
– A difficult job. What’s good for a playing surface is not always good for turf.

Expectations of an Agronomist/Horticulturalist

• Day Job
  – Providing a consistent and dependable high quality and safe playing surface.
• Friends and Family
  – Free advice.
  – A difficult job. A slippery slope of expectations and disappointments.

Expectations of Friends and Family

• An ability to ID common trees, shrubs, and ornamentals found in your local landscape.
• Plant Origin (Old or New World).
• Plant ID is self taught.
  – Past approach – reference books and dry plant specimens.
  – Today – smart phone with plant ID app

Fertilization

• Question – I have a bag of weed and feed… Is this stuff any good?
• Answer – Sure, but you have to read the label and follow the directions.
  - Month of application
  - Rate of application
Weed, Disease or Insect Control

- Friends and family are amateurs.
- Make a referral to a trustworthy landscape or lawn care company.

Proprietary Turf Products

- Talk the walk.
- It’s a foreign language.
- Visit the lawn and garden sections and read the labels.

If Clint Eastwood was a sports turf manager...

Michael Goatley, Jr.
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Virginia Tech
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Selecting an infield skin – two factors ABSOLUTELY necessary for success (your field WILL FAIL if either of these factors are limitations)

- Surface drainage
- Composition of the soil mix
A wise man once said...

"There are two keys to success in sports field design: success involves about 90% drainage and 10% common sense...

And if you don’t have enough common sense, add more drainage”.

The mix selected for both these sites:
- 62% sand
- 19% silt
- 19% clay

The rationale for the high school field: “We want only the best for our athletes so we gave them an infield mix that the pros use in Baltimore…”

How much and when does it rain?

Do you have a tarp and if so, do you have enough people to utilize it properly?

Are there times you can make your limitations work for you?

In the transition zone, the answer is sometimes YES
Spring greening of Riviera (R), Common (C), Wrangler (W) and various % seeded bermudagrass blends on 26 April.

Visual turf quality of Common (C), and Riviera/Common (R/C) blends in August, 2 years after planting.

Row-plant Patriot bermudagrass sprigs directly into the cool-season sod in late May... delivering approximately 40 sprigs/sq ft (corresponds approx. to 900 bu/A).

We called this “low impact bermuda conversion”
Patriot Low-Impact Conversion Trial at Va Tech Turfgrass Research Center, Sept. 27, approx. 17 weeks after planting of May 26.

Primo Maxx, 44 oz/A
Strip Kill, glyphosate at 128 oz/A
Untreated Control
Total Kill, glyphosate at 128 oz/A

Winterkill... always a real possibility in the transition zone

Advancements in genetics continue to improve sports turf opportunities and enhanced playing conditions.

Bluemuda takes advantage of vastly improved Kentucky bluegrass genetics (faster germination and establishment, aggressiveness, heat and drought tolerance, tolerance to closer clipping etc.) in the effort (and in many cases, demonstrated success) in maintaining a perennial, 2-grass system.

What if you want an improved bermudagrass but have no supplemental irrigation?
But what if you want an improved VEGETATIVE bermudagrass but have no supplemental irrigation?
South Forsyth HS – I saw this on Twitter recently and I love the message! Traffic management is not an “I wish we could” situation... it’s a “must have”. You’ve got to have a PLAN and you have to educate EVERYONE.
Your Case Study for the day: High School Field, Roanoke, VA, it's Dec. 23, and it's a cool-season mix (fescue, bluegrass, and perennial ryegrass)

What are the 'realistic possibilities' for getting this field in shape for spring soccer?

Okay, that's enough...

LET'S NOT GO AND RUIN IT BY THINKING TOO MUCH

@vaturf