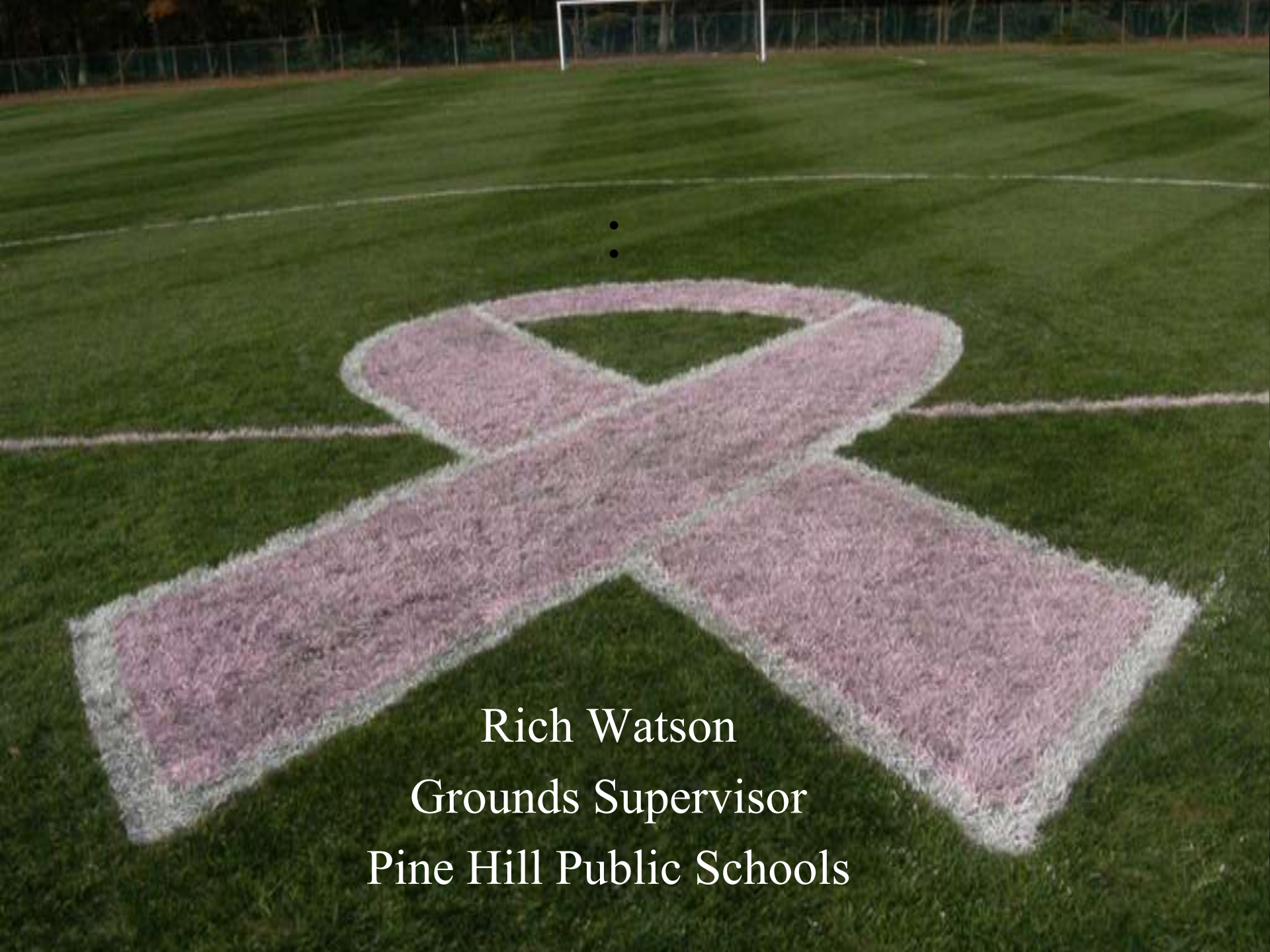


Safe Playing Fields: Legislation, IPM and the Sports Turf Manager

SportsTurf
MANAGERS ASSOCIATION

Experts on the Field, Partners in the Game.





-
-

Rich Watson
Grounds Supervisor
Pine Hill Public Schools

Overbrook High School

Pine Hill, NJ



Belvedere Property Management



Belvedere Property Management



Who Am I?



Environmentalist?



Advocate

Sports Field Manager



Defending Sports Turf IPM Programs



IPM Stereotypes



IPM Program?

OR

Pesticide Program?

IPM ?
or
Overuse ?





High Maintenance IPM Program

A photograph of a soccer goal on a grassy field. The goal is white with a black net. The field is green with some patches of brown soil. In the background, there is a dense line of green trees under a clear blue sky. A blue object is visible near the goal.

No Maintenance ?
or
IPM ?

Pesticide Issues

A red tractor with a sprayer attachment is parked in a paved parking lot. The tractor is viewed from the rear, showing a large red tank and a long horizontal spray bar. A person in a blue shirt is seated on the tractor. In the background, there is a brick school building on the left, several yellow school buses, and a white van. To the right, a chain-link fence separates the parking lot from a green field. The sky is overcast.

Do Pesticides Make Fields Safe For Play ?
Or
Do Pesticides Make Fields Toxic to Users?



Confusion about IPM as it relates to:
“Safe Playing Fields”

What is a “Safe Playing Field”?



Aeration, Seeding, Proper Mowing, Fertility/Irrigation Management





Responsible Pest Management

IPM

Can it be done?

July 2004



July 2005





What is IPM ?

Integrated pest management is an effective and environmentally sensitive approach to pest management that relies on common sense practices.

Integrated pest management programs use current, comprehensive information on the life cycles of pests and their interaction with the environment.



Integrated Pest Management (EPA definition)

Integrated pest management (IPM) is the control strategy of choice for homeowners, growers, and commercial applicators. **IPM is an approach to pest management that blends all available management techniques - nonchemical and chemical - into one strategy:** Monitor pest problems, use nonchemical pest control, and resort to pesticides **only** when pest damage exceeds an **economic** or **aesthetic** threshold.



Aesthetic Threshold?



Safety Threshold?

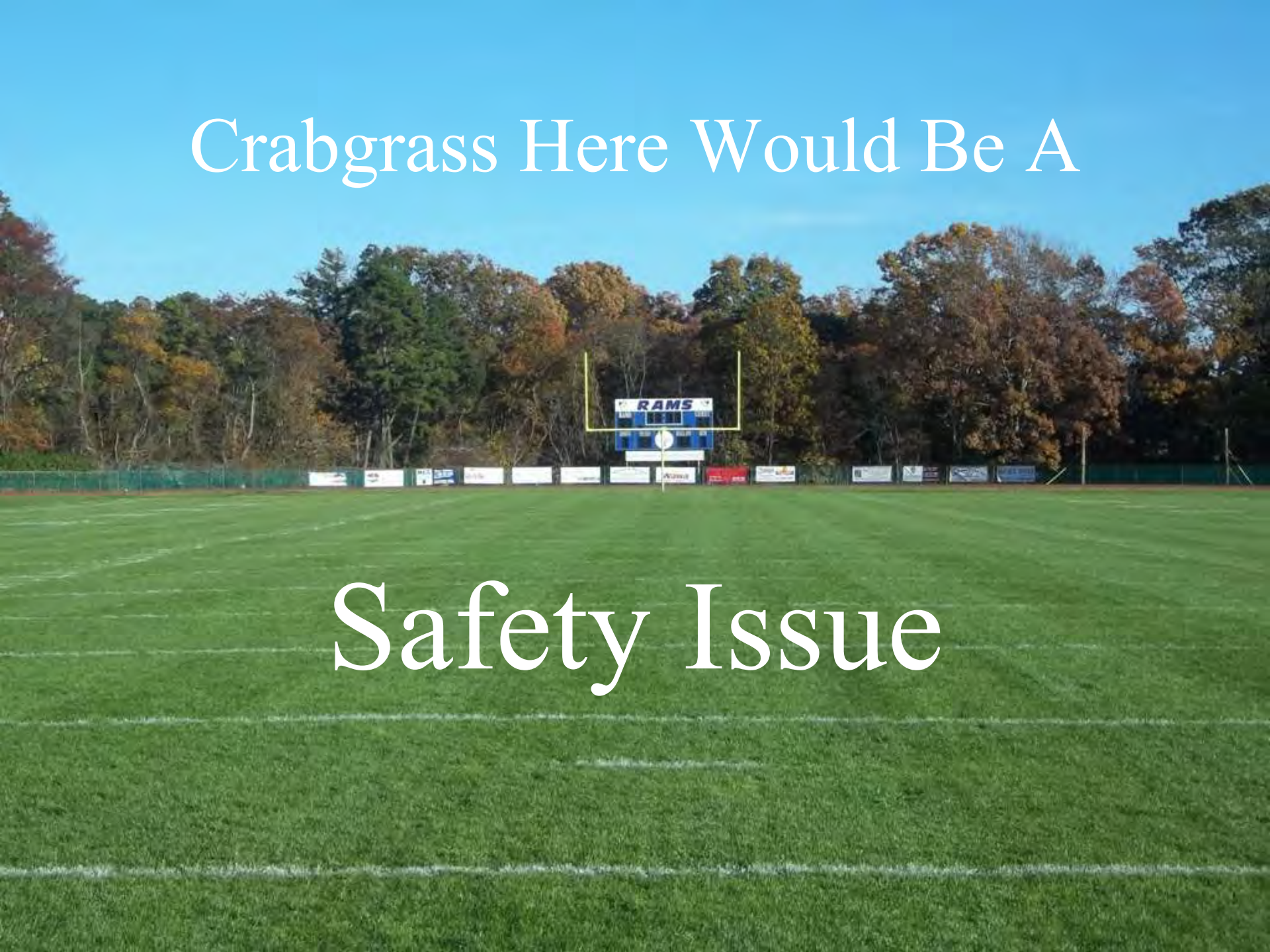


Loose Turf is a Safety Issue



Crabgrass Here Would Be A

Safety Issue





Worn Crabgrass Provides Poor Footing and No Stability

Concepts

Information in combination with available pest control methods are used to manage pest damage with the least hazard to people, property and the environment

Integrated pest management programs should take advantage of **all** pest management options possibly including, but not limited to the judicious use of **pesticides**



Benefits of IPM

- Reduction in pesticide use
- Reduced risk products encouraged
- Bigger focus on cultural practices
- Knowledge based decisions made about pests
- Field history records kept
- Thresholds for individual pests are set
- Continuing education is essential



NJ School IPM Act of 2002

- Applies to K-12 schools only
- Develop an IPM plan
- Designate an IPM coordinator
- Provide education and training
- Keep records/ Pest Logs
- 72 hr notification of pesticide use to all staff and parents of students
- Category 13 needed to apply at schools



What am I doing here?

The Safe Playing Fields Act



The Safe Playing Fields Act

Would restrict use of lawn care pesticides at certain day care centers, schools and recreational fields



Similar Legislation

- NY state has a complete pesticide ban at schools and parks
- Conn. has a k-8 pesticide ban
- Mass. has the Children's Protection Act
- Canada



Thursday, March 3, 2011

The Montclair Times

Letter to the editor: Our chance to ban toxic chemicals where NJ children play

An issue whose time has come. The **Safe Playing Fields Act** (S-2610) is currently moving through the New Jersey Legislature. This bill bans the use of toxic lawn pesticides on ball fields and playgrounds at daycares, schools, and parks. **Even with the current "Integrated Pest Management" practices, schools too often apply pesticides on a "maintenance schedule," often without even the need.**



Legislative Testimony

“We believe that without this proposed legislation, schools will continue to needlessly use lawn pesticides on their playing fields, because they can. If there is a rare case when a weed, insect or fungus presents an immediate health risk to children, the legislation provides an emergency exemption for pesticide use. I cannot think of what that health threat might be.”



- If hired by a school, pesticide applicators will still be able to determine best ways to maintain the turf following practices and using products that do not pose a threat to children's health. **They will just not be allowed to use toxic, synthetic pesticides to maintain turf anymore, unless there is an immediate threat to public health.**
- Where the pesticide applicator won't have decision making is when it comes to an immediate threat to public health. Decisions about health risks to children are better made by a health officer in conjunction with school officials. **Pesticide applicators are trained to apply pesticides, not about the safer alternatives that long-term prevent pest problems (planting resistant grass varieties, enriching soil with organic matter, irrigating infrequently and deeply to encourage healthier roots).**



Sports Turf Managers ? or Pesticide Applicators ?



Under Attack

**Acceptable Turf
Conditions**

Need to Lower Standards



Consequences


Medium Quality to Poor



Poor Quality to Dangerous







PEPSI	VISITOR		HOME	
	H	E		
	BALL	INNING STRIKE		OUT

Getting Involved

My Story

- After proposed legislation was announced in Jan of 2011, I wanted to get involved but didn't know how
- Tried contacting legislators directly
- Researched issue online
- Read online testimony from a previous hearing
- Seemed like the process was unfair because the testimony didn't have any balance
- Well intentioned people were driving this legislation without any real world input on the issue
- Emotion was replacing common sense and facts





No turning back:
Stepping out of my comfort zone

Mr. Watson Heads to Trenton





Working With Partners



State Street Lobby Firms



Becoming an Asset

- Learn about how the legislative process works
- Work with lobby firms to get direct access to legislators
- Make available facts, costs and related statistics providing expert information that otherwise might not be available
- Attend strategy sessions with parties involved
- Meet with legislators as part of a group strategy
- Make time to attend hearings
- Get prepared to testify



Legislative Testimony



Legislative Testimony

- Relay real life experience to legislators
- Puts a face on the issue
- Allows opportunity to refute questionable information from previous testimony
- Gives legislators the opportunity to ask you questions about your testimony
- Lets you highlight specific facts in a public setting
- Brings a lot of attention your way **good and bad**
- You may see your public testimony again
- Check with your bosses before entering the public arena



Results

- Testimony was well received as factual at assembly hearing
- Met with three sponsors of the bill and was thanked for providing a side of the issue that had not been presented before
- Met with Senate president and Assembly speaker of the house and helped secure delay of legislation until compromise is reached
- Legislation was never brought to senate or assembly floor for a vote



Defending Your IPM Program: What made the difference

- Able to communicate that IPM programs provide safe playable recreation areas
- Public health and safety is always the turf managers top priority
- The realization that sports fields are not maintained by pesticide applications but rather by a well thought out maintenance program
- Understanding that removing pesticide use from playing surfaces does not instantly make them safe playing fields



Personal Results

- Have been invited to be part of a NJDEP committee working on outdoor IPM issues
- Can explain process to fellow turf managers to bring clarity on the issue
- Recognized as knowledgeable expert on outdoor IPM issues
- Asked to write articles on the subject
- Invited to speak at conferences
- Pride in Pine Hill's IPM program



IPM Pride in Pine Hill



“IPM is a Twelve Month Process”



Pine Hill's IPM Management Plan



IPM Field Logs

- IPM field inspections are performed monthly and then recorded.
- This information is then used to develop a management plan for pest control
- Maps, pictures and monitoring forms are all included in the log book giving us a comprehensive look at the past history of each field
- It may take some time to develop a plan as next year's IPM program is based on this seasons problems



Turf Scouting Record

Date 3/1/12 Scout Name Rich Watson

Site Location _____

Green/Tee _____ Playing Field Varsity Football

Home Lawn _____

Name _____

H M L

Address _____

Age of Turf _____

Compaction L

Phone _____

Seed or Sod X seed

Thatch Layer L

Sun/Shade _____

Soil Type Sandy loam

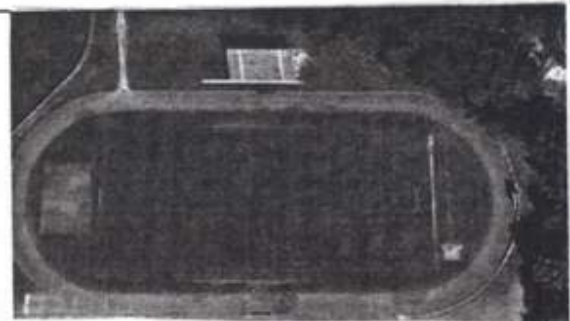
Kentucky Blue	Tall Fescue	Diseases	Abb.	Insects	Abb.
_____	<u>X</u>	Anthrachnose	A	Ann. Blue Weevil	AW
Bentgrass _____	Annual Blue <u>X</u>	Brown Patch	BP	Black Turf Ataenius	BT
Fine Fescue _____	Perennial Rye <u>X</u>	Dollar Spot	DS	Blue Billbug	BB
		Fusarium Patch	F	Chinch Bug	CB
		Gray Snowmold	GS	Cutworm	C
		Leaf Spot	LS	European Chafer	EC
		Patch Disease	PD	Grub Type	G
		Pink Snowmold	PS	Unknown/Other	UI
		Unknown/Other	UD		

Comments:

3/8 - 35lbs N/1000sf
31-0-0

Pest Management Unit Map:

Patches of clover present in middle of field



Pine Hill BOE IPM Monitoring Log for Sports Fields

Inspector Name:

Field Name:

Threshold Designation:

Field Sq. Ft.:

Date of field inspection:

Pest Monitoring								
Pest	Low ----- High					Name	District Action Threshold	Recommended Action
	0%	10%	25%	50%	75%			
Broad leaf weeds/ clover								
Crabgrass/ sedges								
Disease								
Insects								
Turf Conditions								
	Low ----- High						Comments	Recommended Action
	1	2	3	4	5			
Density								
Compaction								
Wear								
Thatch								



BEST MANAGEMENT PRACTICES

BEST MANAGEMENT PRACTICES								
Non Chemical Actions						Date	Type/ Amount	Comments
Aeration								
Mowing Frequency								
Seeding								
Irrigation								
Top-dress/divot repair								
Fertility/ Pesticides								
Product	Lbs. Nitrogen/ 1000 sq. ft.					Date	Amount	Comments
	.10	.25	.50	.75	1.0			
21-0-0								
Roots 15-0-8								
Acelepryn 0-0-7								
0-0-60								





Notes:

- White clover exceeds 25% of the field and may need to be treated this summer.
- Dandelion plants observed on field
- Crabgrass has germinated and exceeds 25% of the field. Treatment not needed
- Oriental beetle observed from 7/1- 7/15
- Acelepryn applied for grub control due to monitoring and field history. Application made to center of field only



Varsity Football Field History



- ▣ White grub infestation has been an ongoing problem for many years
- ▣ Clover and crabgrass infestation has been a long existing issue on this field

Pre-Notification of the Use of Pesticides

(This notice should be received at least 72 hours prior to pesticide use)



Date: 7/16/12

To: Parents and guardians of students, and staff of Overbrook High School

From: IPM Coordinator: Tom O'Donnell Phone Number: 783-6900 ext 1118

Subject: Notification of the Use of Non Low Impact Pesticides

This notice is to advise you that the following pesticide(s) will be used at Overbrook High School:

Pesticide Common Name	Chlorantranilliprole	
Pesticide Trade Name	Acelepryn	
EPA Registration Number	352-734-82757	

Location of the pesticide application: Middle School Soccer, Varsity Field Hockey, Varsity Soccer, Varsity Baseball and Varsity Football fields

Reason for the pesticide application: Control of white grub. These fields have a past history of grub damage and have shown signs of infestation due to beetle monitoring.

If an indoor application, the date and time it is planned:

DATE _____ TIME _____

If an outdoor application, 3 dates must be listed, in chronological order, on which the outdoor application may take place if the preceding date is canceled.

Date: 7/19/12 Date: 7/20/12 Date: 7/21/12

Description of the possible adverse effects of the pesticide as per the Material Safety Data Sheets for the pesticides to be used, if available: No Signal Word. If eye contact is made, may cause transient irritation with discomfort, tearing and blurred vision

Pesticide product label instructions and precautions related to Public Safety: This product has no known adverse effects on human health

Note: By law, we must advise you that: *The Office of Pesticide Programs of the United States Environmental Protection Agency has stated: "Where possible, persons who potentially are sensitive, such as pregnant women, infants, and children, should avoid any unnecessary pesticide exposure."*

Different Types of Competition Require Customized Thresholds



Pine Hill Public Schools

Pest Thresholds for Highest Care Fields

Clover/ Broad leaf weeds – **25% coverage of field** will prompt consideration of a low-impact pesticide if available and practical or the lowest risk synthetic pesticide

Crabgrass – **25% coverage of field** will prompt consideration of a low-impact pesticide if available and practical or the lowest risk synthetic pesticide available. It is important to note that a preventative application may be made to control seed head production. The field will then be evaluated at the end of the



Pine Hill Public Schools

Pest Thresholds for High Care Grounds

Clover/ Broad leaf weeds – **50% coverage of field** will prompt consideration of a low-impact pesticide if available and practical or the lowest risk synthetic pesticide

Crabgrass – **50% coverage of field** will prompt consideration of a low-impact pesticide if available and practical or the lowest risk synthetic pesticide available. It is important to note that a preventative application may be made to control seed head production. The field will then be evaluated at the end of the





Best Management Practices for the Sports Turf Manager

Cultural Practices

- Cutting height/ frequency
- Aeration
- Fertility
- Seed in season
- Proper irrigation



The Reality of IPM



Field Hockey Field Case Study





Varsity Field Hockey Field

2012 Review

4.23 lbs N/ 1000 sf

400 lbs perennial rye seed

300 lbs tall fescue seed

Granular application of Acelenryn







Varsity Field Hockey Pest Issues

- Crabgrass
- Dollar spot
- Oriental beetle/ white grub
- Brown patch
- White Clover

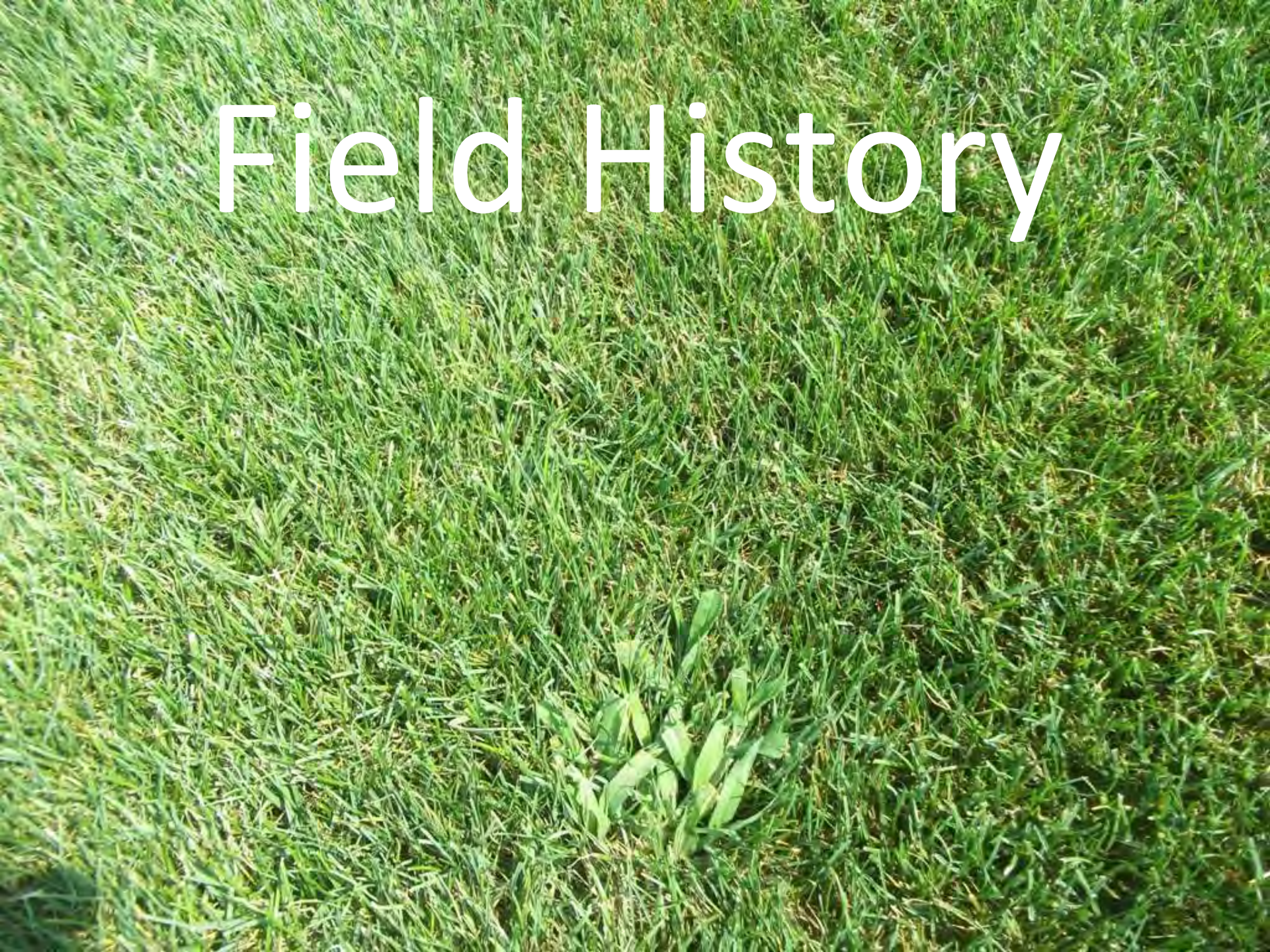


Zero Pesticide Inputs?

IPM



Field History



Pesticide Use 2009

- Granular Dimension
- Liquid Acclaim
- Liquid Momentum
- Granular Merit
- Granular Bayleton



2009



Pesticide Use 2010

- Granular Dimension
- Granular Merit
- Granular Bayleton



2010



Pesticide Use 2011

- Granular Acelepryn
- Granular Bayleton
- Granular Dimension



2011



Pesticide Use 2012

- Granular Acelepryn



2012



Pesticide Use 2013

- Granular Acelepryn



2013



Does field quality suffer with reduced pesticide inputs in an IPM program?

2009

2013



Crabgrass problems 2009

- 50% of field covered with crabgrass
- Dimension pre-m applied 09,10,
- Acclaim sprayed 09
- Heavily seeded with perennial rye during season
- Cut at 1.75"



What We **Don't** Do Now

Practice Football

Field Hockey



Crabgrass 2009



Crabgrass 2013





Disease Drama



Varsity Field Hockey

Dollar Spot 8/10/09

AM

AM



8/10/09

AM



AM



8/10/09

PM



PM



Field Hockey

August



November



2013 Dollar Spot





2012 Labor Day Massacre



$\frac{3}{4}$ of the field damaged by
Brown Patch





November 2012





November 2013



Fertility Changes for 2013

Switched to a slow release poultry manure based fertilizer for the duration of our warm weather months



1-6-2014





Oriental Beetle







Apply Acelepryn
to Playing Surface
Only

© 2012 Google
© 2012 Europa Technologies

Date: 10/7/2011 1995

39°46'44.76" N 74°57'59.35" W elev 165 ft

Google e

Eye alt

What About Clover?









Clover Thresholds Are Difficult to Set

- Clover in small patches can be tolerated
- Clover in low traffic areas can be tolerated
- Clover in high traffic situations such as goal mouth areas should be addressed
- Clover in the middle of football fields should be addressed



- While clover may be acceptable in some situations, it is not a durable turf for athletic activity.
- It wears quickly and crowds out preferred turf types
- In addition to its lateral growth, clover is a prolific seed producer. This makes it very difficult to control without chemical applications.



Clover after Football









Worn clover areas were the only thin spots on this field



11/23/2013

Is this a safe field?



Can you make it work without
pesticides?

Yes

But

Keep your options open





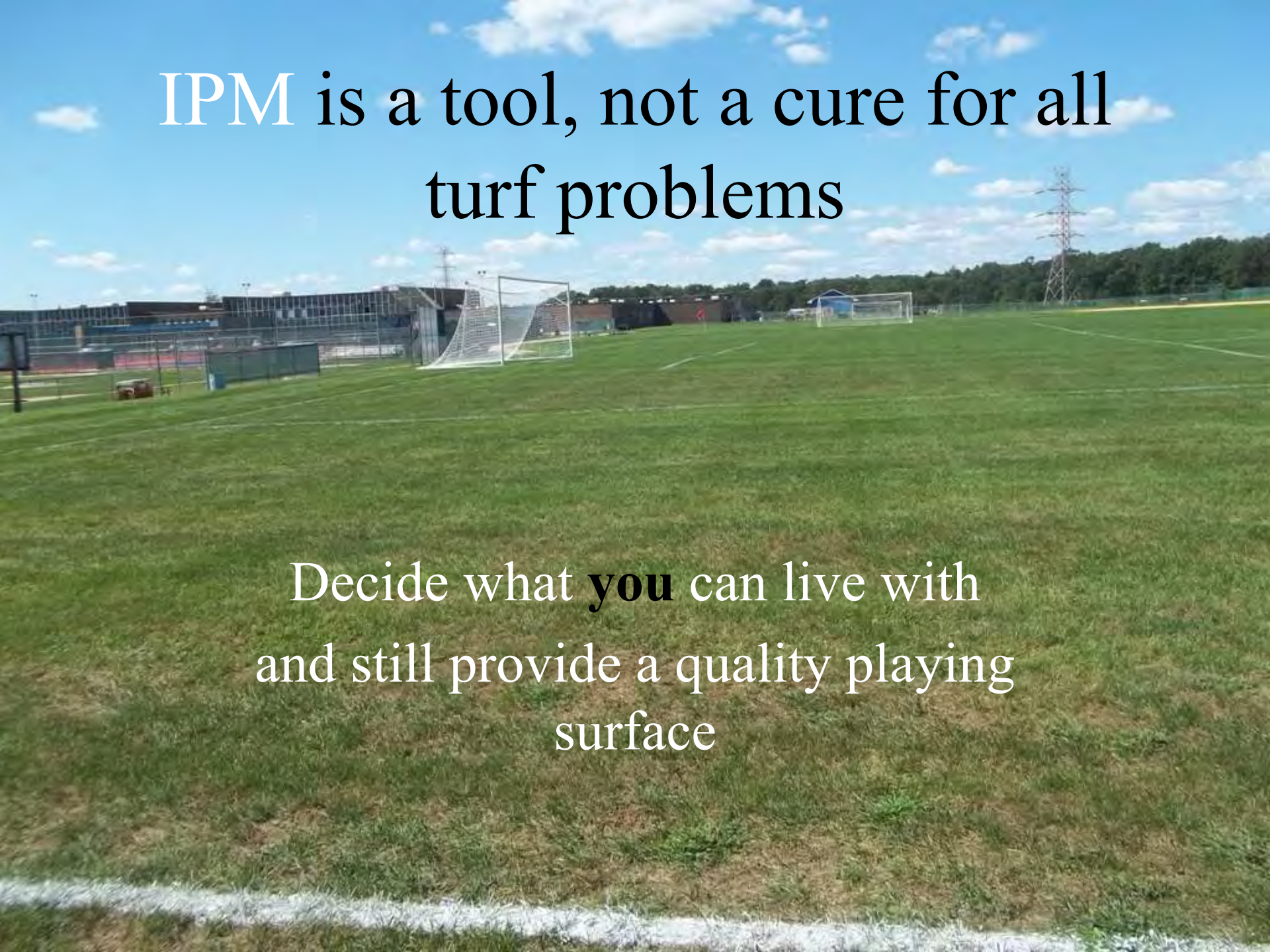


PH

Coca-Cola

J.J. WHITE

LEGG MASON



IPM is a tool, not a cure for all turf problems

Decide what **you** can live with
and still provide a quality playing
surface



IPM Information

Ecosmart
RTU = Spray to Wet
July 11th, 2011
104, 205, 304

Untreated
105, 202

Rutgers Cooperative Extension

www.pestmanagement.rutgers.edu/IPM

Contact Info



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or
wats100@msn.com