2010 WSU Turfgrass Research Highlights

IDGCSA Fall Meeting
October 5, 2010

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Overview

- Tenacity for ‘T-1’ creeping bentgrass control – year 4
- Tenacity-Velocity-Prograss *Poa control*
- Overview of other studies

Tenacity for Bent Control

- 4th Year of study
- Long road, getting answers

What did we do?

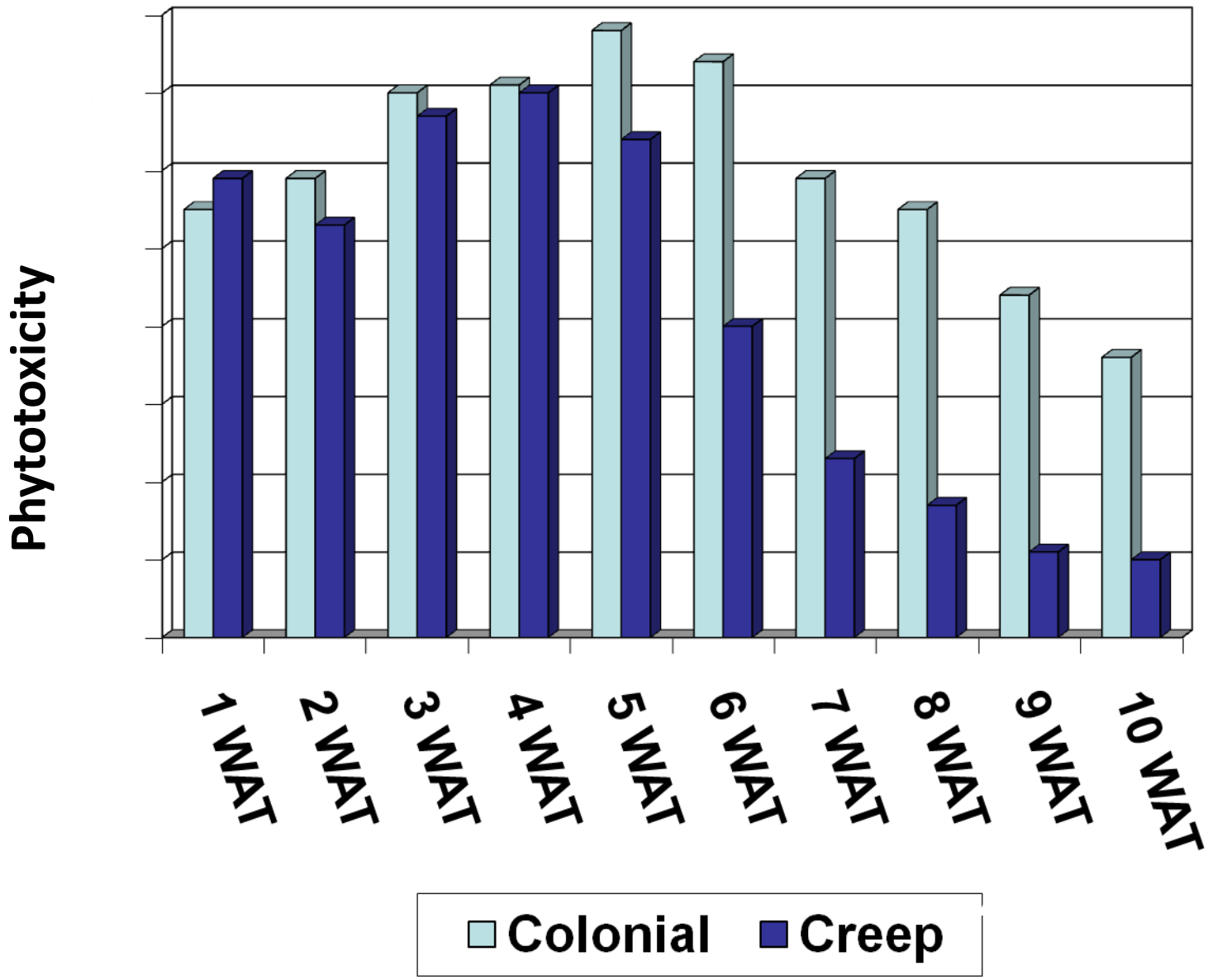
- Multiple (3 or 4) applications of Tenacity
- One year treatment; three years of treatment with one year off
- Rates of 4 or 5 oz/A
- Overseeded PRG in year one
- Observe % bentgrass (2007-2010)
- Observe % Poa (Fall 2009 - 2010)
- Track phytotoxicity (2007-2010)

Species Susceptibility
(8 oz/A x 2 app., 2 wk interval)

- Colonial bentgrass mean = 6.0

- Creeping bentgrass mean = 4.2

Species Differences



Creeping Bentgrass Cultivar Differences

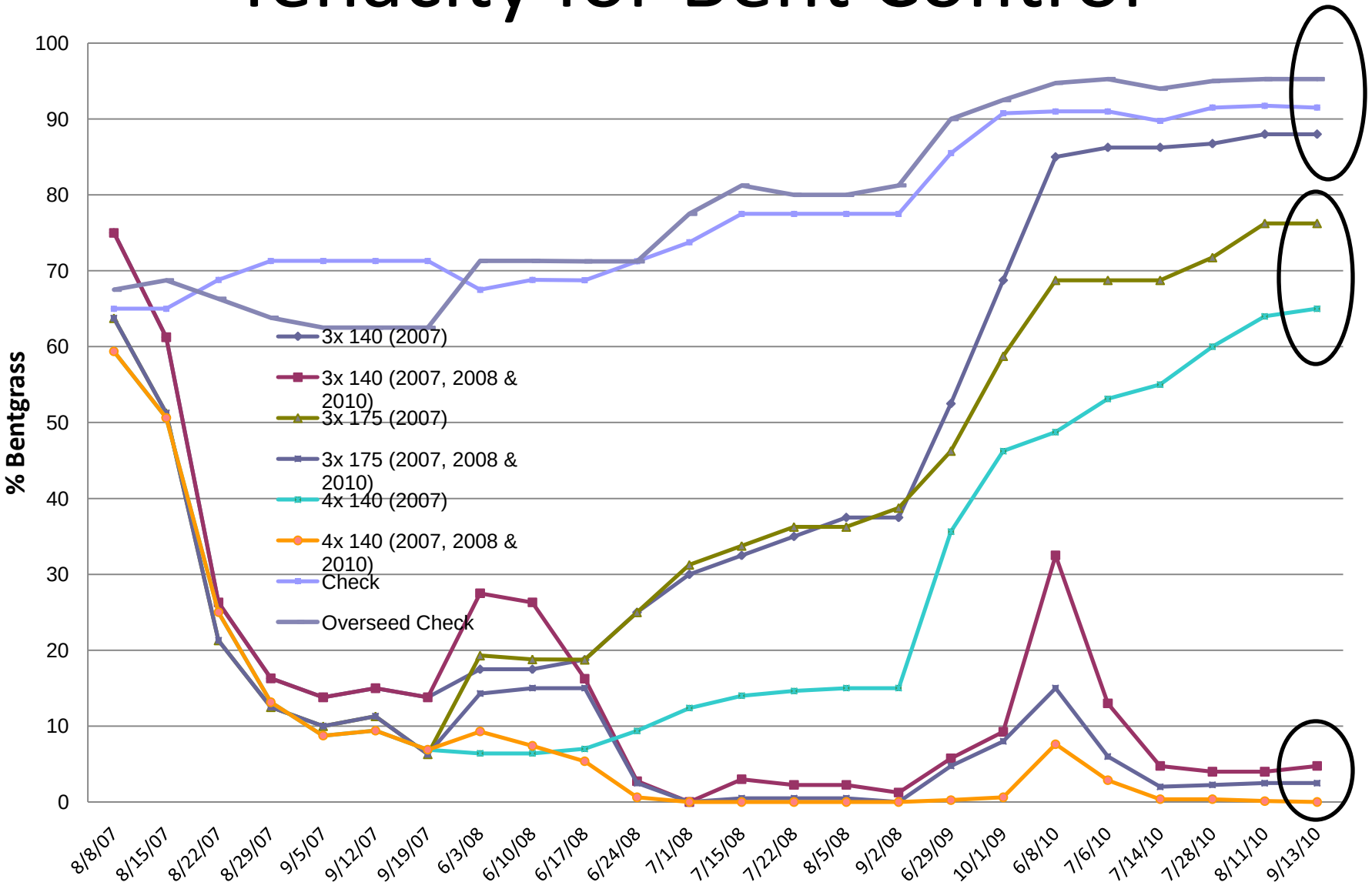
- Declaration = 3.3

Least Susceptible

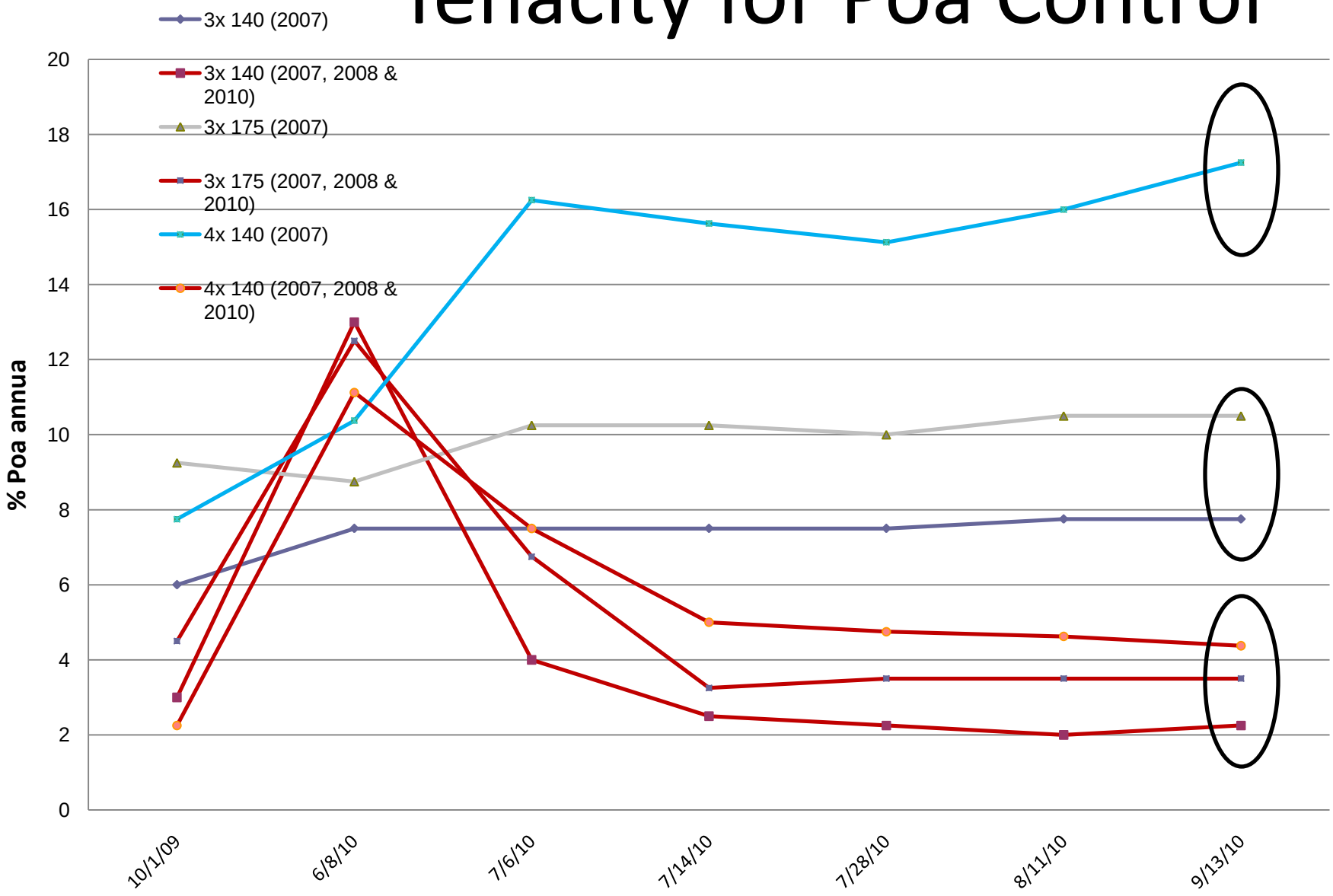
- T-1 = 3.3
- Independence = 3.4
- Pennlinks II = 5.0
- Penneagle II = 5.2
- Seaside = 6.0

Most Susceptible

Tenacity for Bent Control



Tenacity for Poa Control



Using Tenacity for Selective Bentgrass Control in Perennial Ryegrass

Using Tenacity for Selective Bentgrass Control in Perennial Ryegrass

9/22/2010
WSU Turfgrass and Agronomy Research Center


4x 4 fl oz/A (2007)
4x 4 fl oz/A (2007, 2008 & 2010)
9/22/2010
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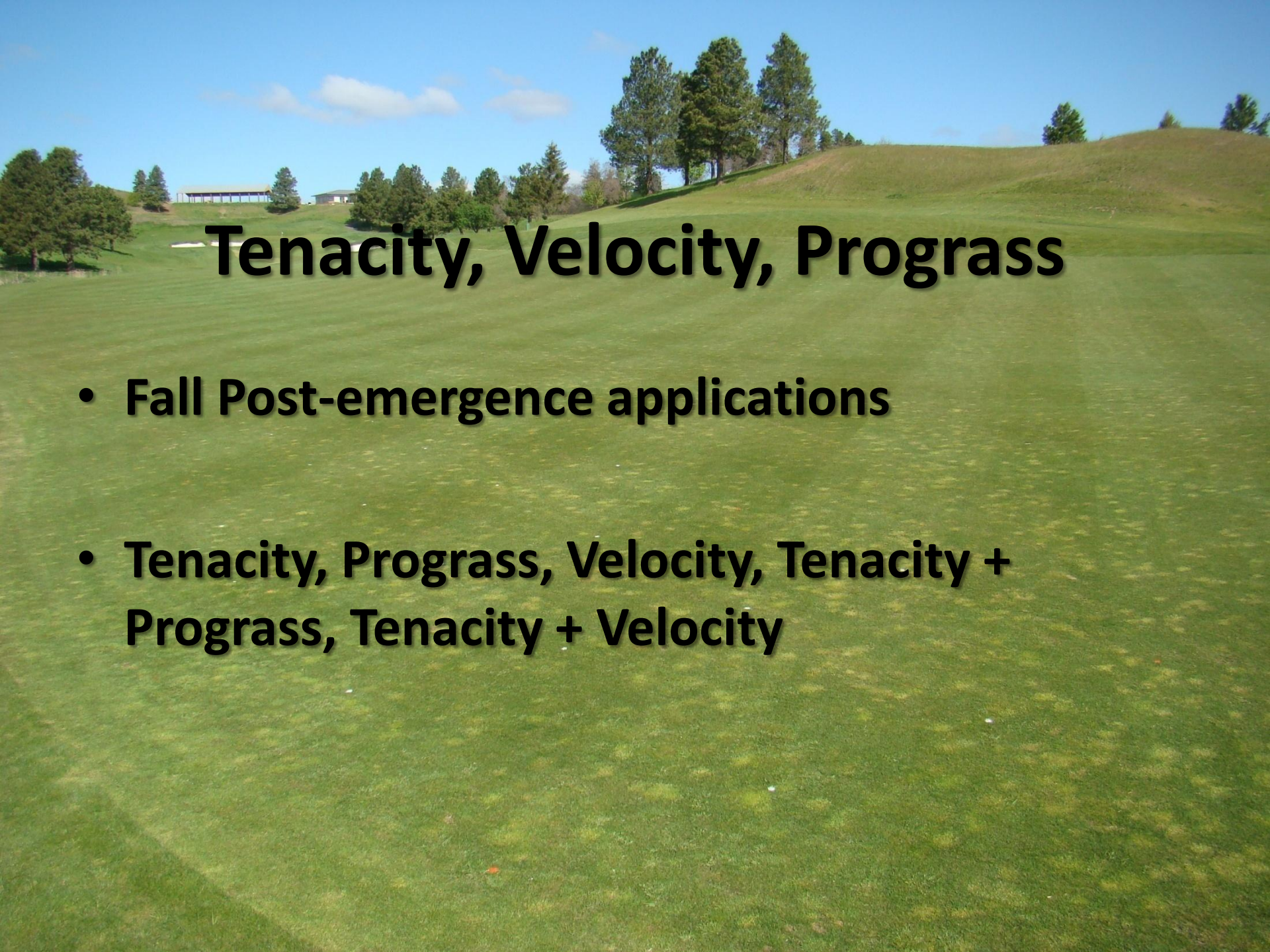
Using Tenacity for Selective Bentgrass Control in Perennial Ryegrass

9/22/2010

WSU Turfgrass and Agronomy Research Center

Summary

- Tenacity 4^2 2^2 year off, repeat
- High infestation = Need to Seed
- Low infestation = Spray and Smile
- Bentgrass spp. and cv. differences



Tenacity, Velocity, Prograss

- Fall Post-emergence applications
- Tenacity, Prograss, Velocity, Tenacity + Prograss, Tenacity + Velocity

Tenacity - mesotrione

- Group 28; HPPD inhibitor
- Bleaching of leaves followed by necrosis and death
- Controls creeping bentgrass and others
- Some indication of *Poa annua* suppression and control

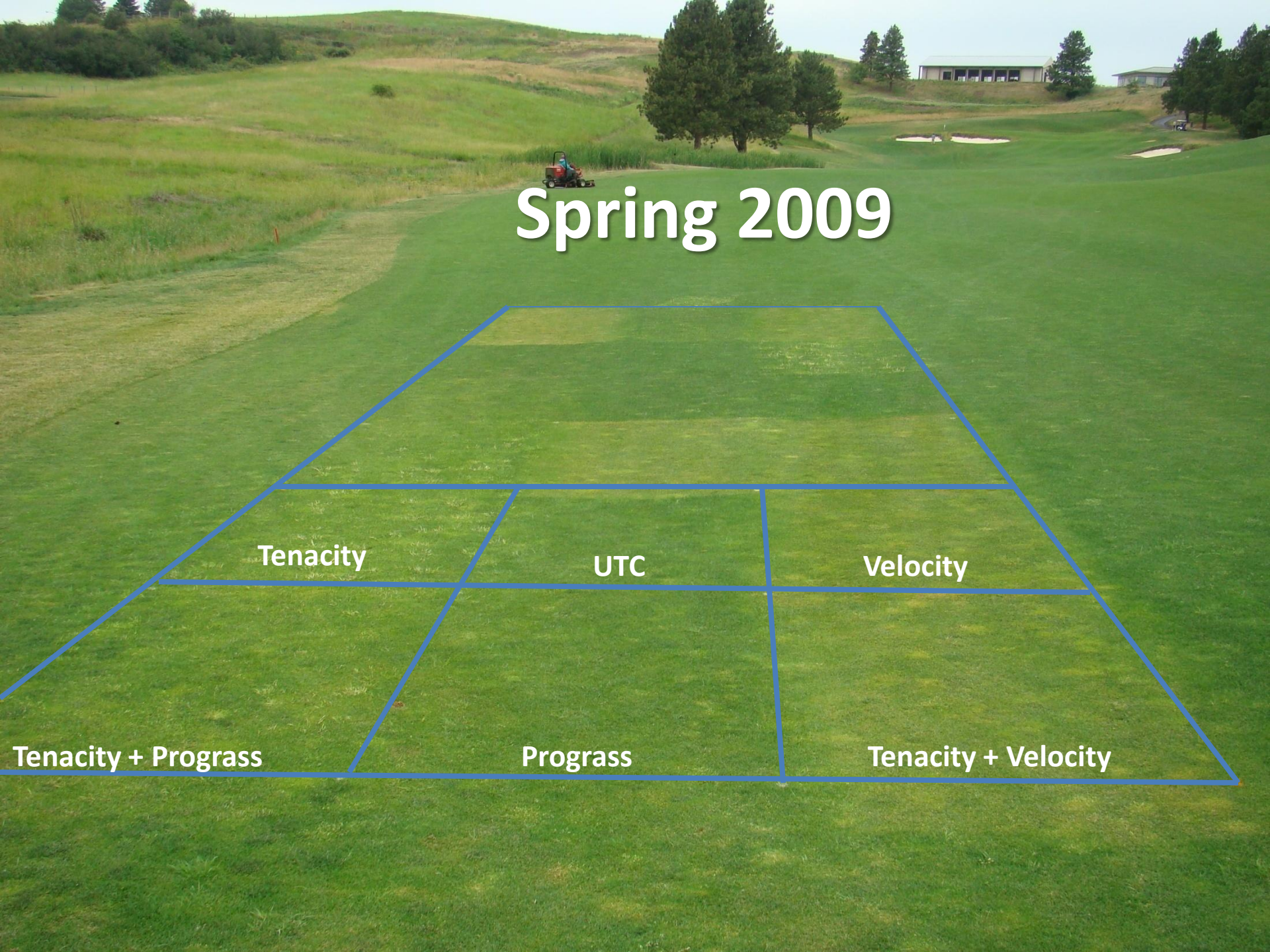
Velocity – Bispyribac-sodium

- Group 2, ALS inhibitor
- Cessation of growth followed by chlorosis, necrosis, death
- Shoot and root absorbed, phloem mobile

Prograss - Ethofumesate

- Group 16

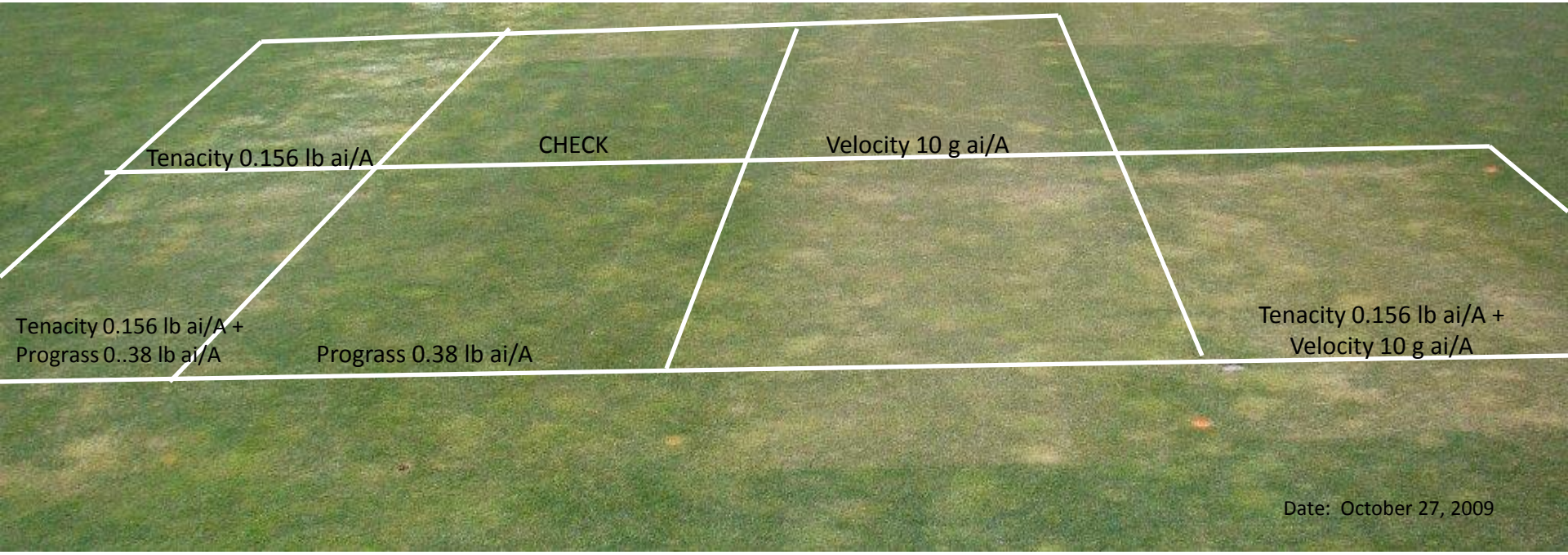
- Shoot and root absorbed; translocated to leaves


Spring 2009
Tenacity
UTC
Velocity
Tenacity + Prograss
Prograss
Tenacity + Velocity

Tenacity, Velocity, Prograss Spring

- No conclusive evidence of *Poa annua* death or suppression
- Spring applications likely more effective if preceded by Fall applications

Phytotoxicity following 3 Fall applications

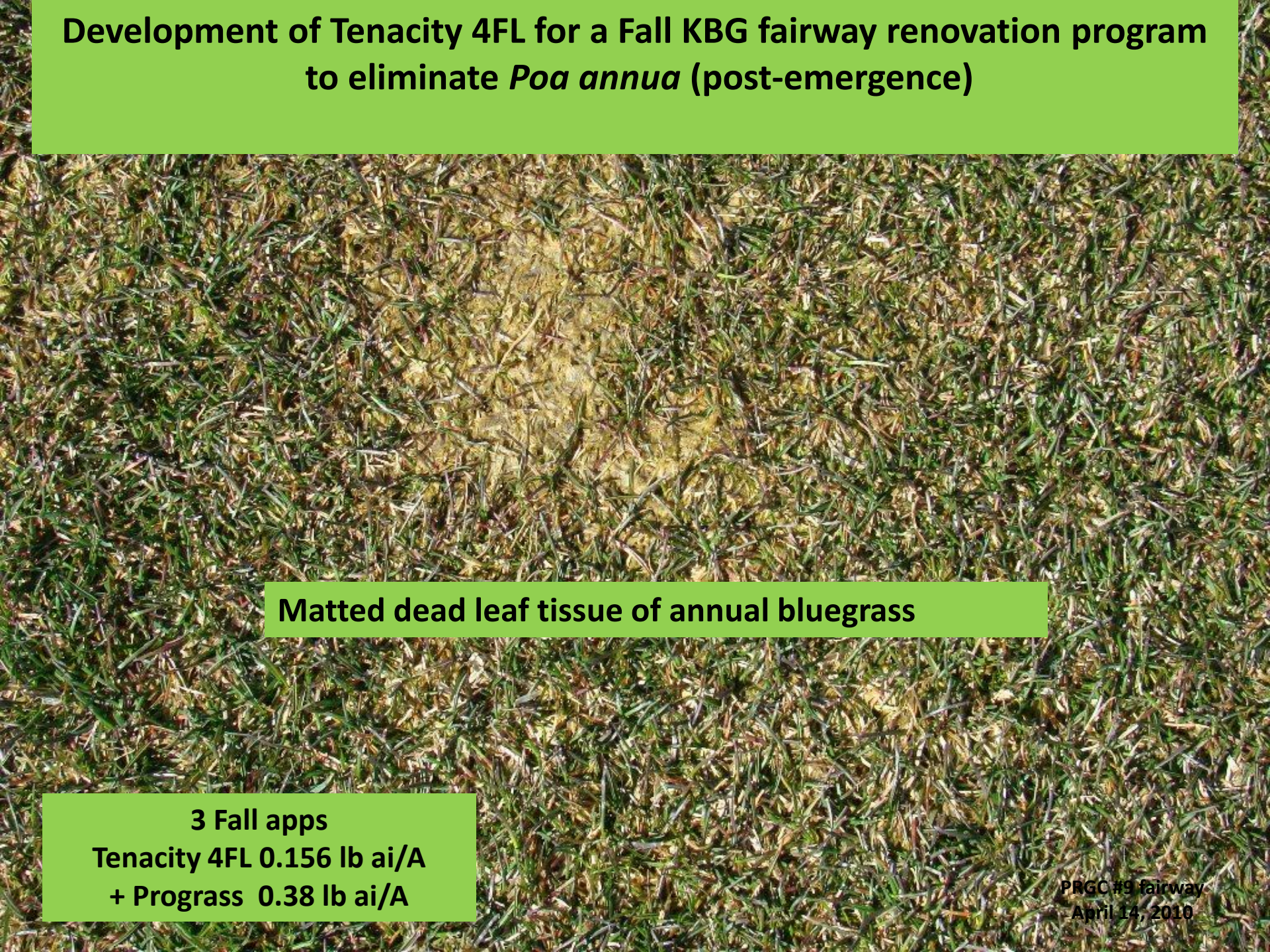


Fall annual bluegrass control with Tenacity-Velocity-Prograss
Syngenta 2009
Palouse Ridge Golf Course 9 fairway

Development of Tenacity 4FL for a Fall KBG fairway renovation program to eliminate *Poa annua* (post-emergence) [3 Fall apps]

PRGC #9 fairway
April 14, 2010

Development of Tenacity 4FL for a Fall KBG fairway renovation program to eliminate *Poa annua* (post-emergence)



Development of Tenacity 4FL for a Fall KBG fairway renovation program to eliminate *Poa annua* (post-emergence)

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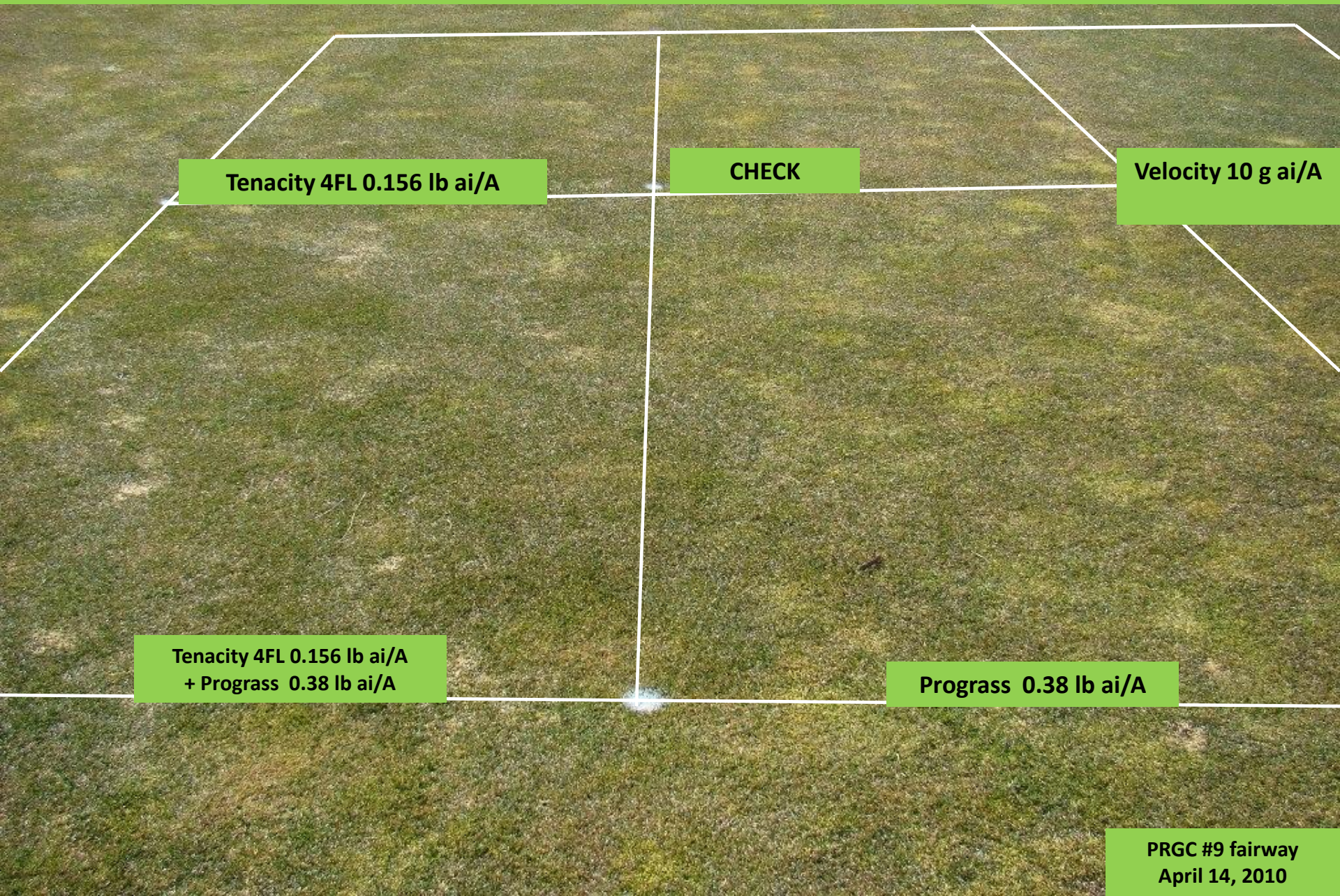
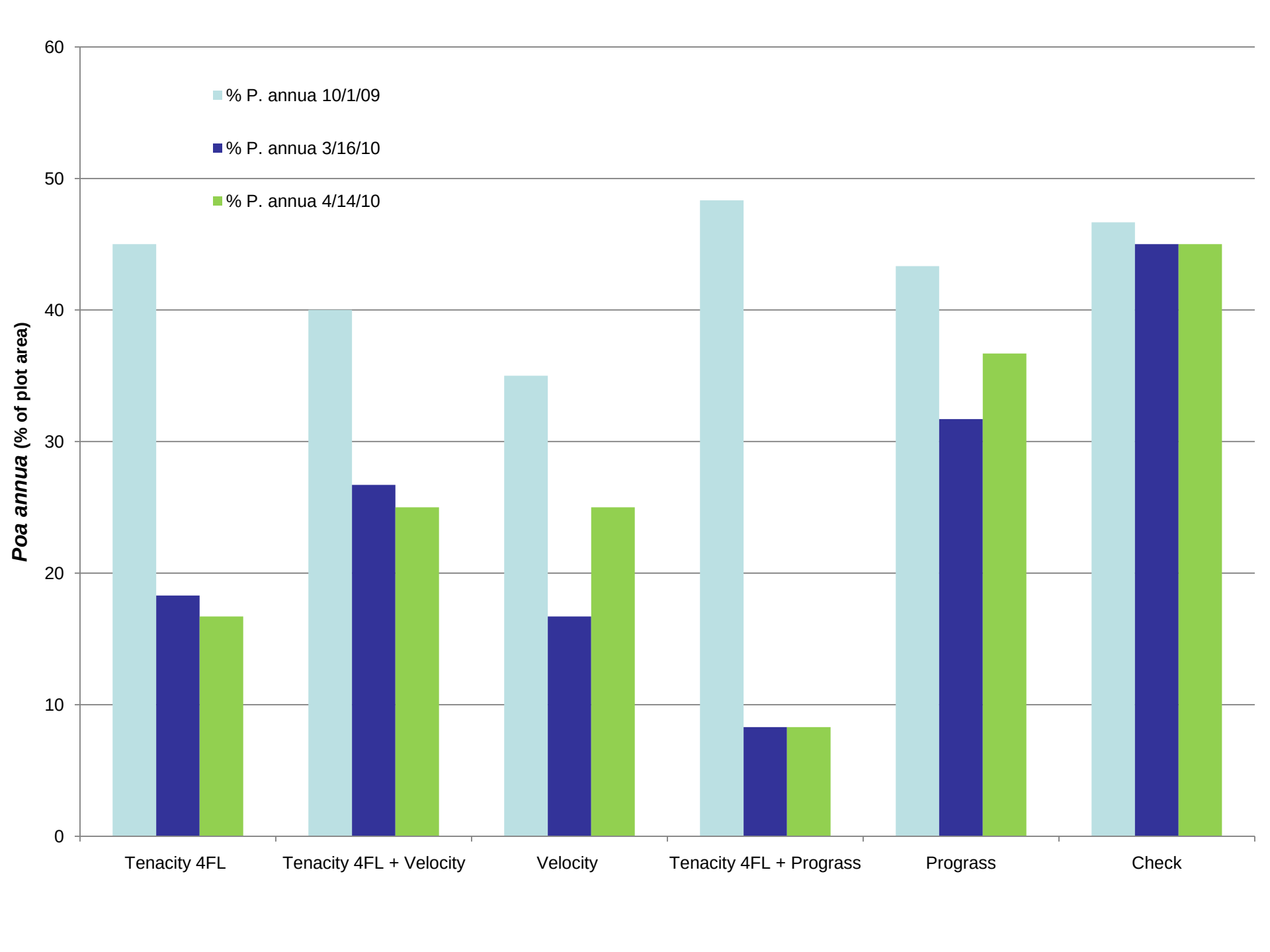
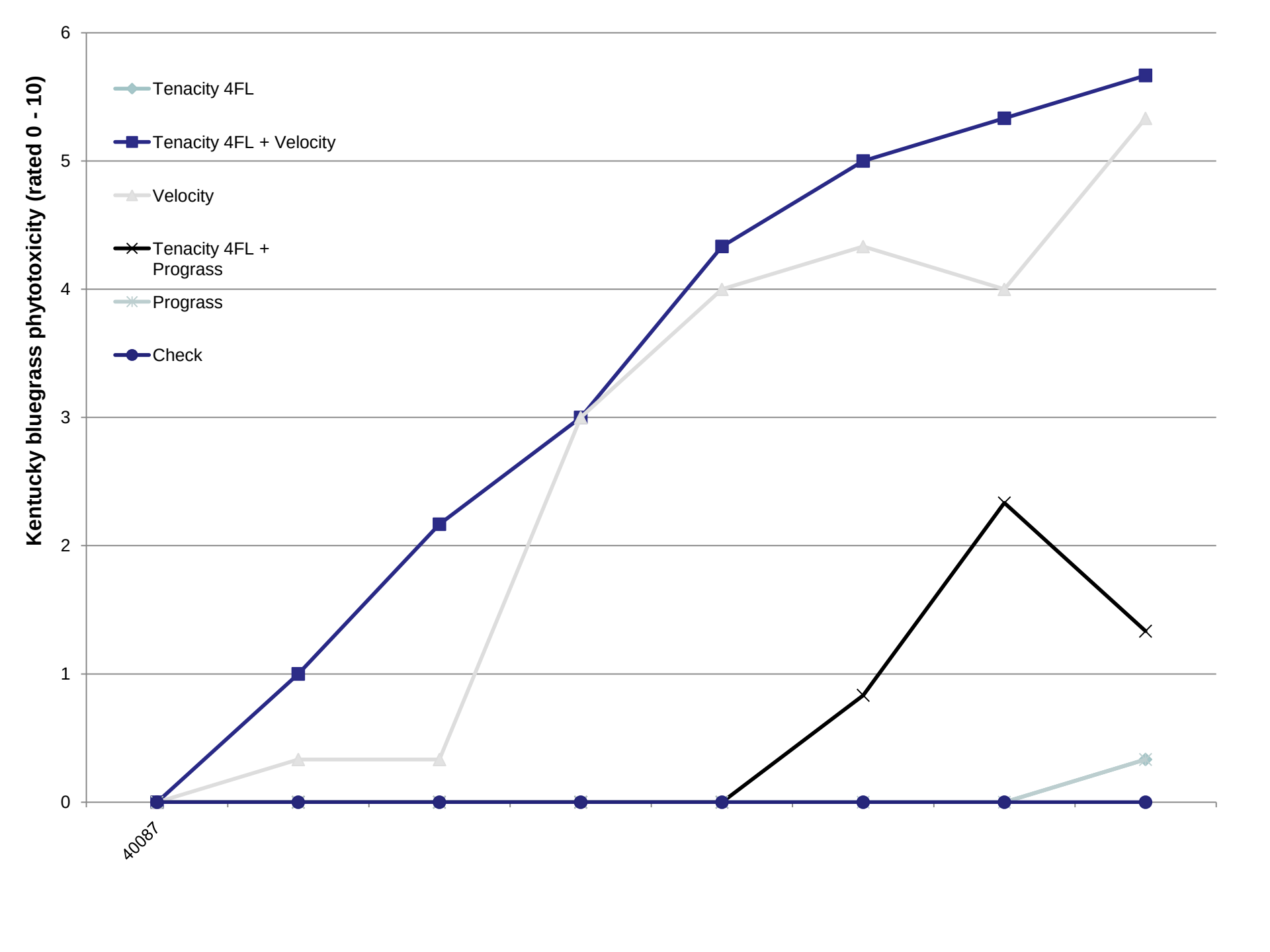



60
50
40
30
20
10
0
% P. annua 10/1/09
% P. annua 3/16/10
% P. annua 4/14/10
Poa annua (% of plot area)
Tenacity 4FL
Tenacity 4FL + Velocity
Velocity
Tenacity 4FL + Prograss
Prograss
Check


Kentucky bluegrass phytotoxicity (rated 0 - 10)
6
5
4
3
2
1
0
Tenacity 4FL
Tenacity 4FL + Velocity
Velocity
Tenacity 4FL + Prograss
Prograss
Check
40087

Key Points

- High levels of KBG phytotoxicity with velocity treatments

- Tenacity and Tenacity + Prograss = Poa reduction with limited phytotoxicity

Other studies

- Glyphosate + Tenacity renovation
- KBG seed production
- Drought recovery
- Hydromulch
- Tenacity Impregnated fertilizer

“Some of the pesticides discussed in this presentation were tested under an experimental use permit granted by WSDA. Application of a pesticide to a crop or site that is not on the label is a violation of pesticide law and may subject the applicator to civil penalties up to $7,500. In addition, such an application may also result in illegal residues that could subject the crop to seizure or embargo action by WSDA and/or the U.S. Food and Drug Administration. **It is your responsibility to check the label before using the product to ensure lawful use and obtain all necessary permits in advance.”**