

# **Game Changers**

**NexGen Turfgrasses Will Be Here Sooner Than Later**



**Brian Schwartz**

**University Of Georgia**

**April 29<sup>th</sup>, 2014**

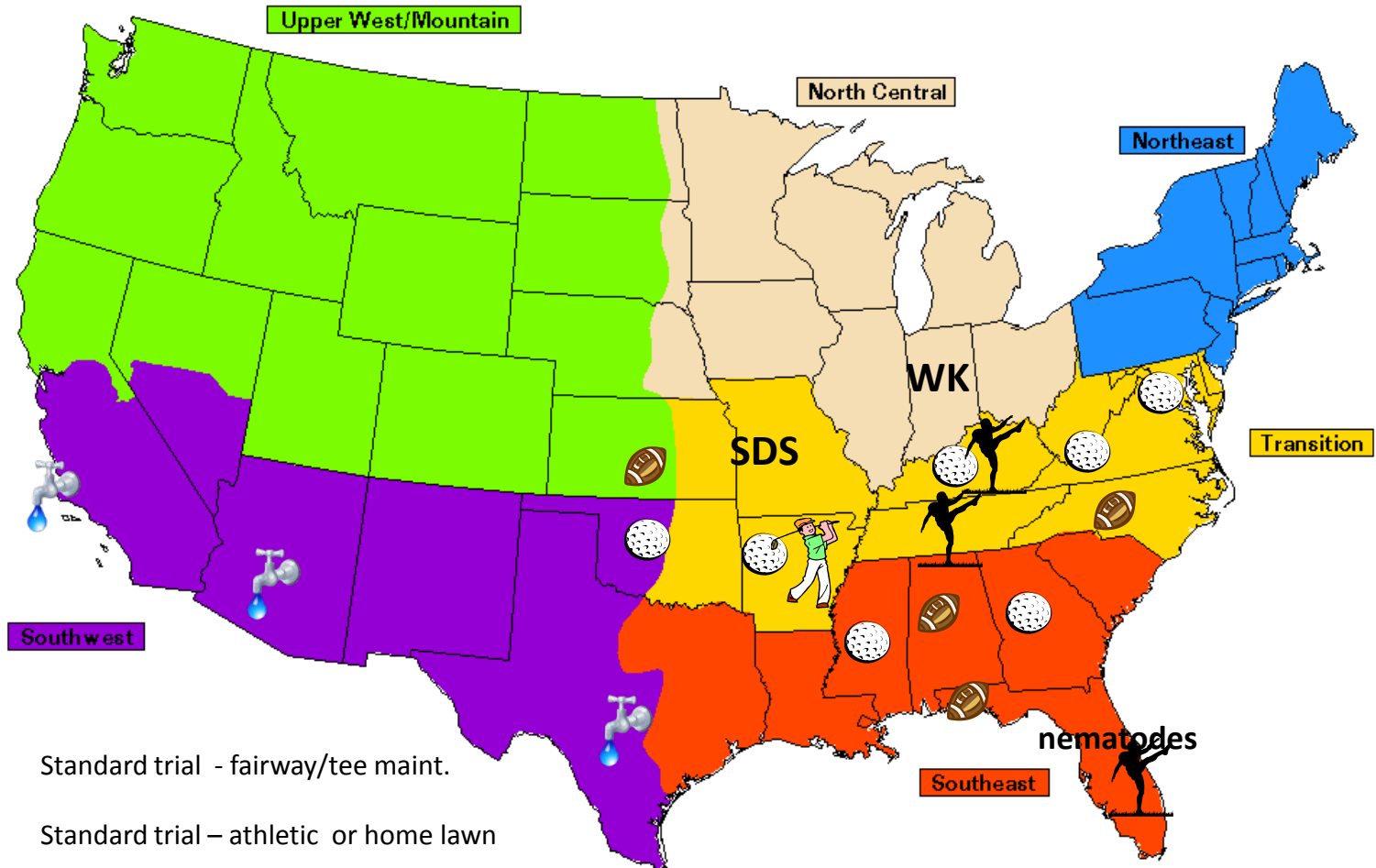


# Outline

- National Turfgrass Evaluation Program (NTEP) – Bermuda, *Zoysia*, & Putting
- USDA-SCRI Drought and Salinity Research
- Collaborative Variety Testing in GA
- On-Station Testing at the University of Georgia Turfgrass Breeding Program in Tifton, GA

# Proposed 2013 Bermudagrass standard & ancillary locations

As of April 2, 2013



Standard trial - fairway/tee maint.



Standard trial - athletic or home lawn

**SDS**



Ancillary Spring dead spot

Ancillary trial - traffic



Ancillary trial - drought

**WK**

Ancillary trial - winter kill



Ancillary trial - divot recovery





# NTEP - Bermuda

- Mississippi State University





# **NTEP - Bermuda**

- **Mississippi State University**





# NTEP - Bermuda

- Mississippi State University





# NTEP - Bermuda

- Auburn University





# NTEP - Bermuda

- Auburn University



# NTEP - Bermuda



- **Purdue University**





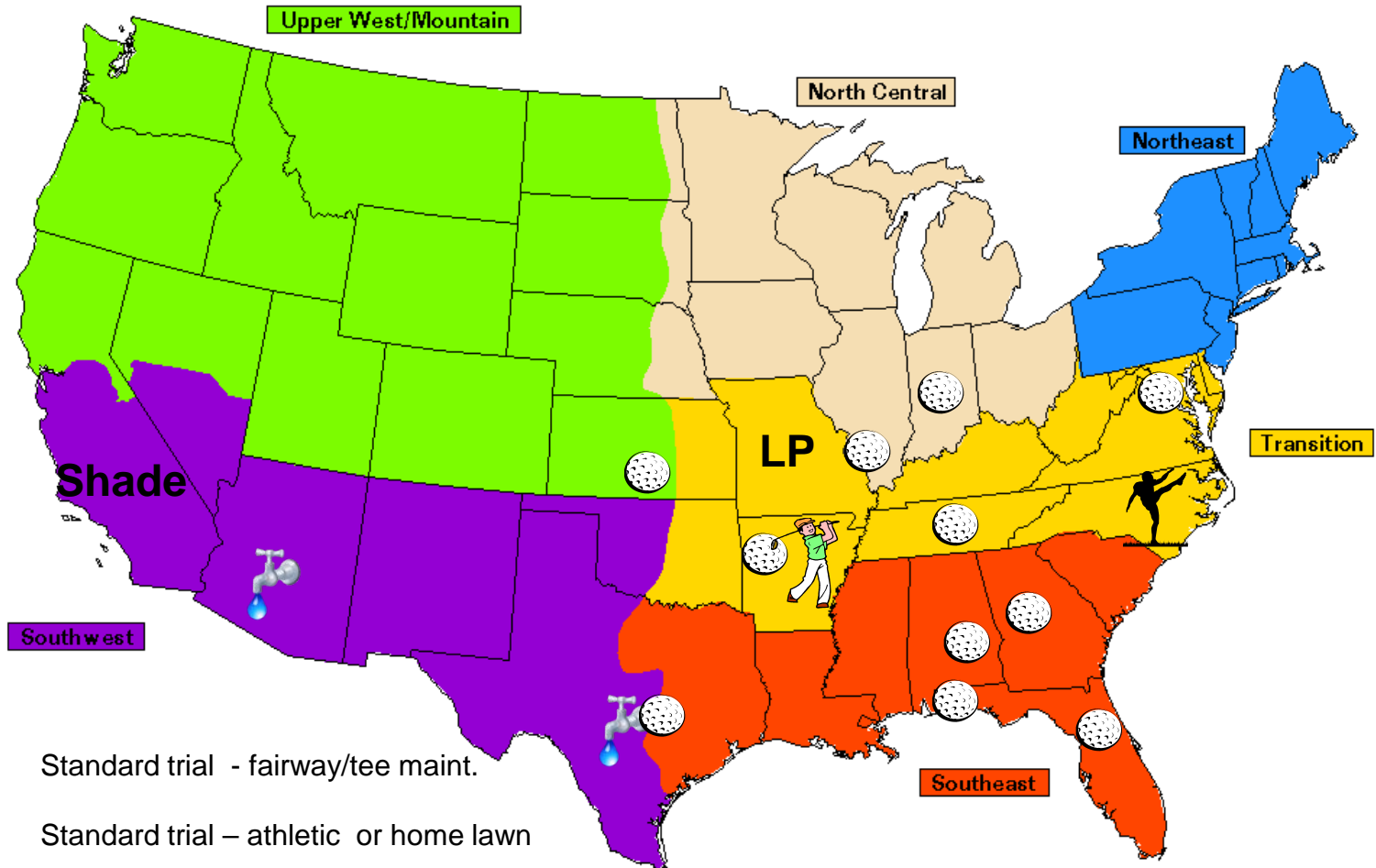
# NTEP - Bermuda

- **Purdue University**



# Proposed 2013 Zoysiagrass standard & ancillary locations

As of April 2, 2013



Standard trial - fairway/tee maint.



Standard trial – athletic or home lawn

**SDS**



Ancillary Spring dead spot

Ancillary trial -  
traffic



Ancillary trial - drought

**WK**

Ancillary trial – winter kill



Ancillary trial - divot recovery



# NTEP - Zoysia

- University of Tennessee



# **NTEP - Zoysia**

- **Kansas State University**

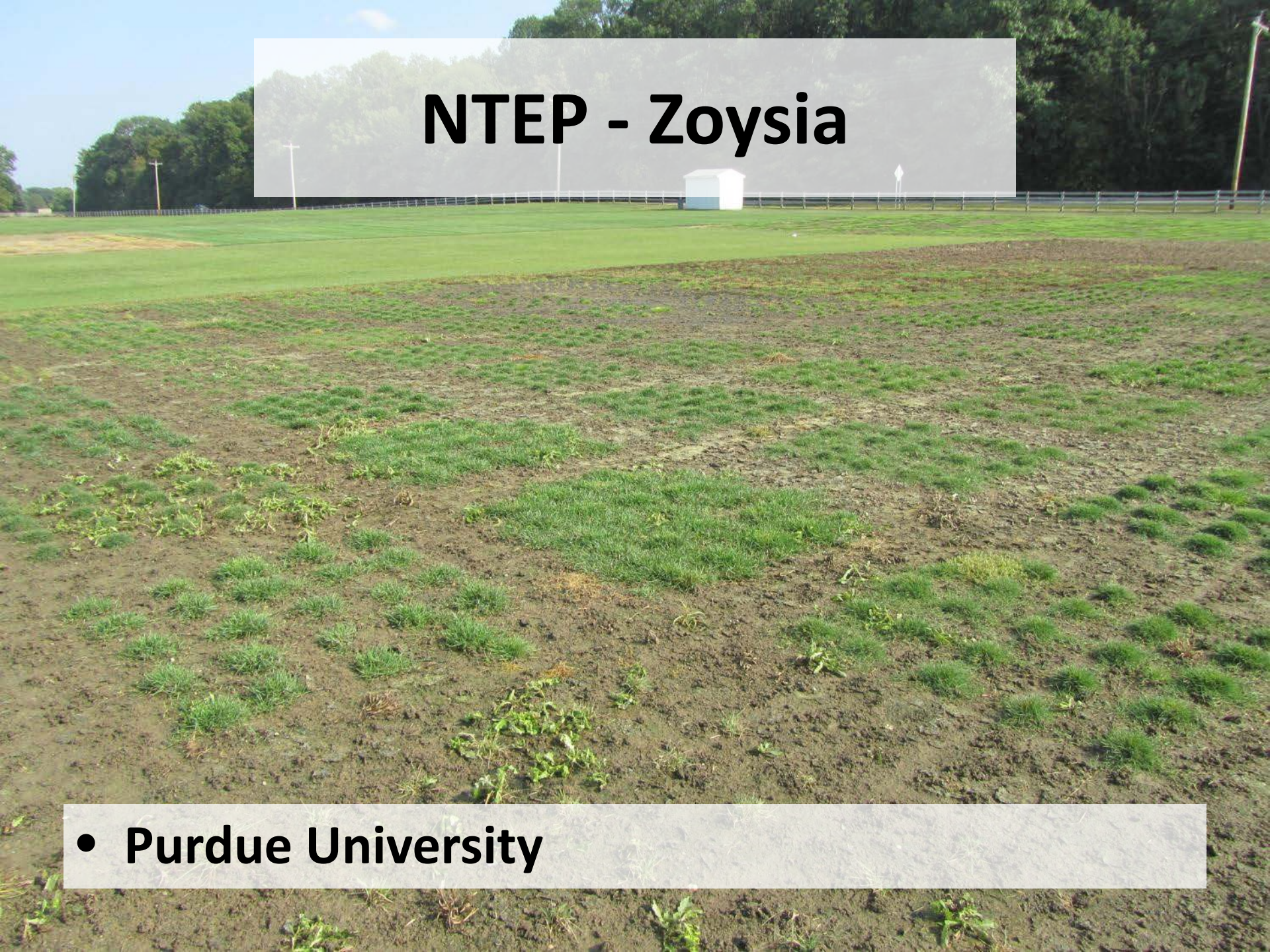


# **NTEP - Zoysia**

- **Kansas State University**



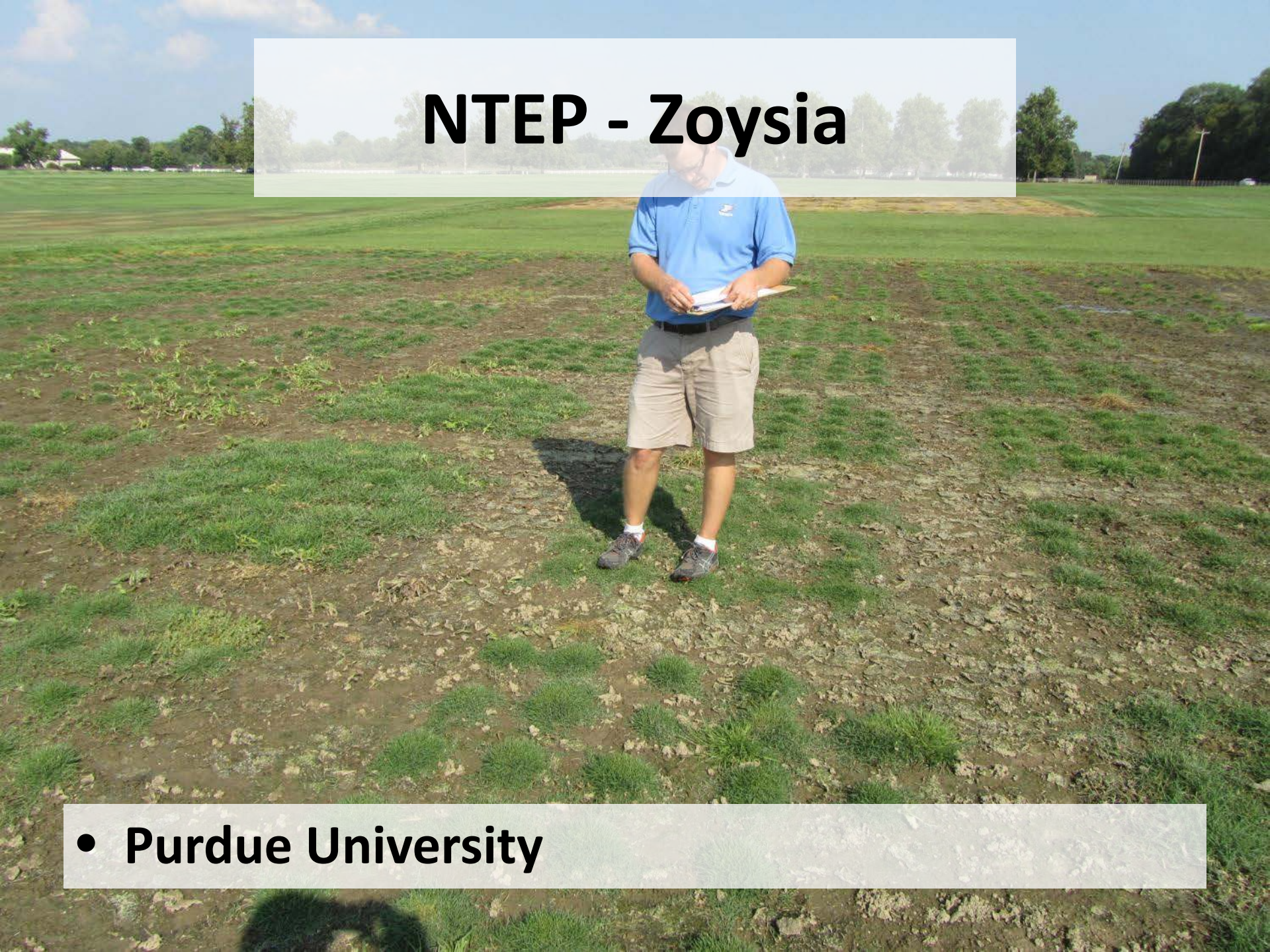
# NTEP - Zoysia



- **Purdue University**



# NTEP - Zoysia

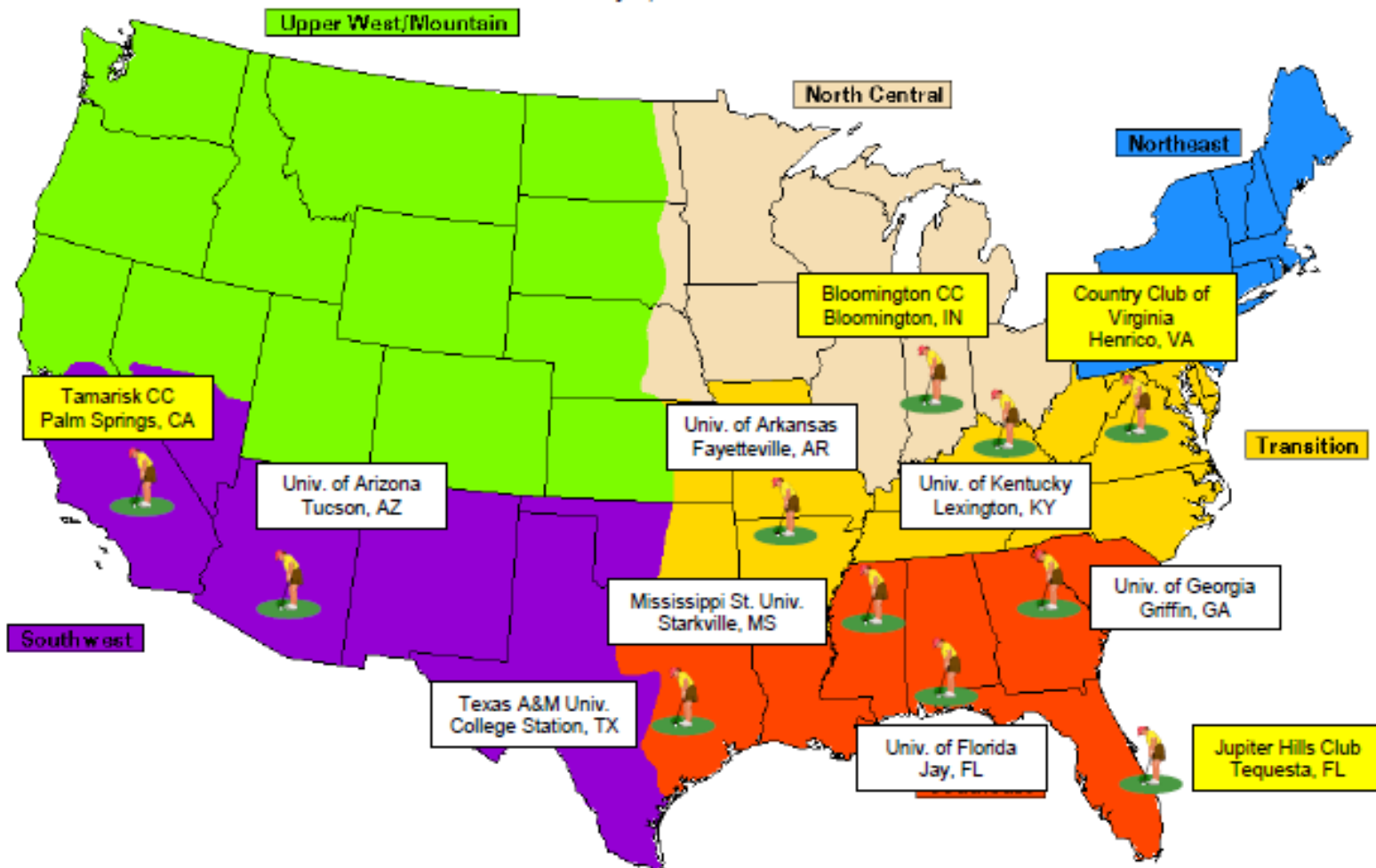
A man in a blue polo shirt and khaki shorts stands in a field of Zoysia grass, looking at a clipboard. The field shows signs of wear and patchiness. The background features a line of trees under a clear blue sky.

- Purdue University



# 2013 USGA/NTEP Warm-Season Putting Green locations

As of July 9, 2013







# **NTEP – Putting Green**

- **Mississippi State University**



# **NTEP – Putting Green**

- **Mississippi State University**



The image shows a wide-angle view of a golf putting green. The grass is green but has some brown, dry patches scattered across its surface. In the upper right corner, there is a small area of sand or gravel. A white rectangular box is positioned at the top center, containing the title. Another white rectangular box is at the bottom left, containing a bullet point.

# **NTEP – Putting Green**

- **Mississippi State University**



# NTEP – Putting Green

- Virginia Tech



The background image shows a golf course setting. In the upper left, there is a white clubhouse with a red door and a green golf cart parked in front of it. The foreground is a large, rectangular area of dry, brown grass, likely a putting green or fairway, with some darker patches. The sky is not visible.

# NTEP – Putting Green

- Virginia Tech



Jan 5  
Dec 28

# NTEP – Putting Green

- Virginia Tech



# NTEP – Putting Green

- University of Arkansas





# NTEP – Putting Green

- University of Arkansas



# NTEP – Putting Green

- University of Arkansas



The image shows a large field of grass, likely a research plot, under a large metal structure that appears to be a greenhouse or an irrigation system. The grass is arranged in rows, and some patches are green while others are yellowed or brown, indicating different levels of stress or salinity. The title "USDA Drought & Salinity" is overlaid on the top part of the image.

# USDA Drought & Salinity

- **St. Augustinegrass - Tifton**



# USDA Drought & Salinity

An aerial photograph of a large field of grass, likely a research plot. The field is divided into a grid of rectangular plots. The grass in the plots shows varying degrees of stress, with some appearing vibrant green and others appearing brown, yellow, or sparse. The background shows a continuation of the field with more uniform green grass.

- St. Augustinegrass - Tifton





# USDA Drought & Salinity

- **St. Augustinegrass - Tifton**





# USDA Drought & Salinity

- **St. Augustinegrass - Griffin**





# USDA Drought & Salinity

- Seashore Paspalum - Tifton





# USDA Drought & Salinity

- Seashore Paspalum - Griffin





# USDA Drought & Salinity

- Zoysiagrass - Tifton





# USDA Drought & Salinity

- Zoysiagrass - Tifton



# USDA Drought & Salinity

An aerial photograph of a large field, likely a research plot, divided into a grid of smaller sections by white lines. Each section contains small, green, clumpy plants, possibly grass seedlings, growing in brown soil. The background shows a green field and some trees under a clear sky.

- Zoysiagrass - Griffin





# USDA Drought & Salinity

- Zoysiagrass - Griffin





# USDA Drought & Salinity

- Bermudagrass - Tifton



# USDA Drought & Salinity

An aerial photograph of a large field where the grass has been planted in a precise grid pattern. Each patch of grass is a vibrant green, contrasting sharply with the dry, light-brown soil between them. This visual likely represents a study on how different grass varieties or treatments perform under drought or saline conditions. In the background, a metal frame structure, possibly for irrigation or research equipment, is visible on the left, and a line of trees and a building are on the right.

- Bermudagrass - Tifton



# USDA Drought & Salinity



- Bermudagrass - Griffin





# USDA Drought & Salinity

- Bermudagrass - Griffin



# UGA – Offsite Trials



- Country Club of Columbus



A man in a white polo shirt and khaki pants stands on a green golf course. In the foreground, there is a large, irregular sand trap. The background shows a line of trees under a clear sky.

# UGA – Offsite Trials

- Country Club of Columbus





# **UGA – Offsite Trials**

- **Country Club of Columbus**





# UGA – Offsite Trials

- **Country Club of Columbus**



# UGA – Offsite Trials



- Atlanta Athletic Club





# UGA – Offsite Trials

- **Atlanta Athletic Club**





# UGA – Offsite Trials

- **Atlanta Athletic Club**



# Putting Green Trials





# Putting Green Trials







# Putting Green Trials

**08-T-18 Bermuda**

**Champion Bermuda**

- **Golf Course Trials during 2013 in Georgia**



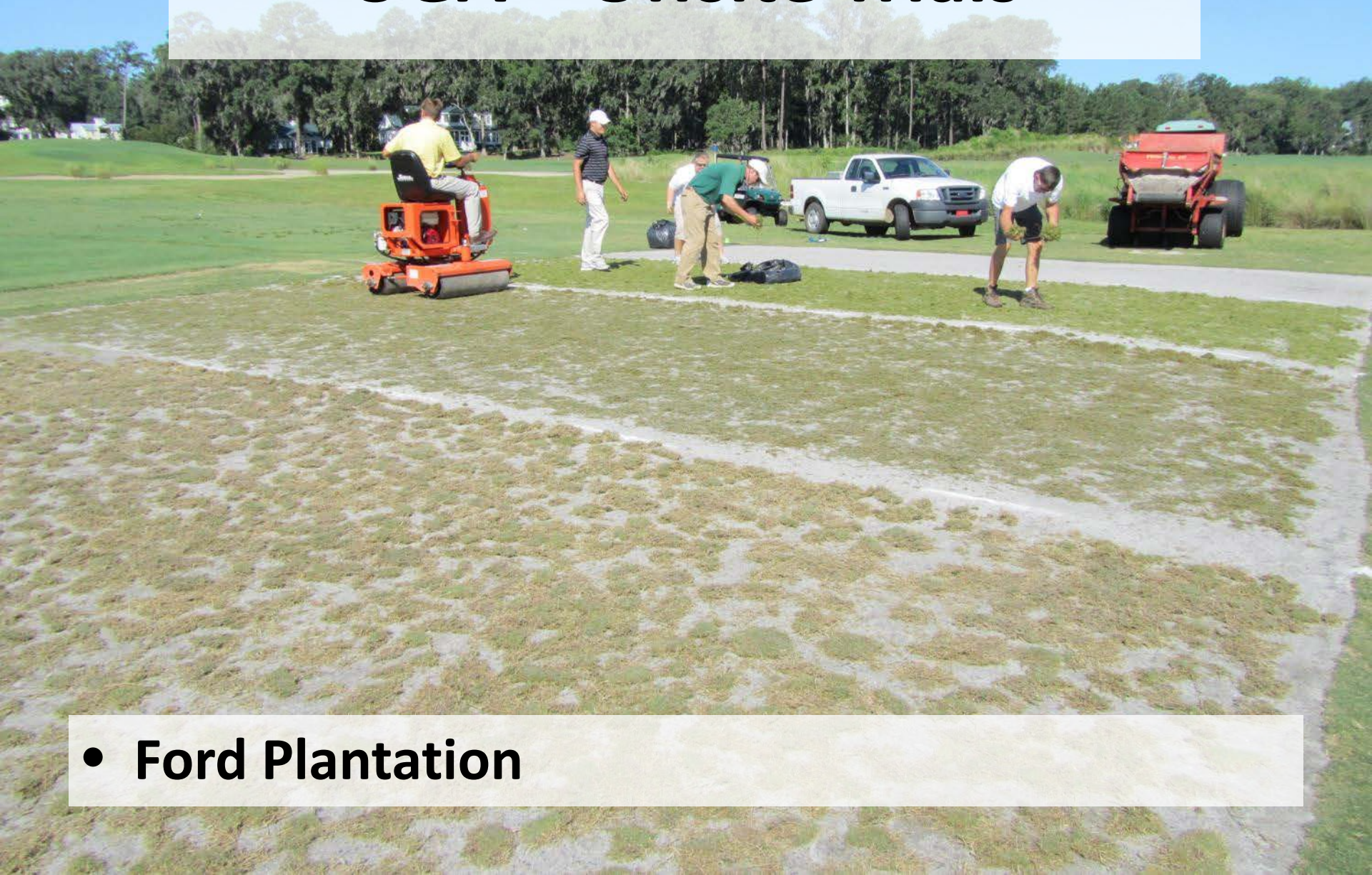
# Putting Green Trials

08-T-18 Bermuda

- Golf Course Trials during 2013 in Georgia



# UGA – Offsite Trials



- **Ford Plantation**



# UGA – Offsite Trials

- Ford Plantation





- **Ford Plantation**



# UGA – Offsite Trials

- The Landings



# UGA – Offsite Trials

- The Landings



# UGA – Offsite Trials

- The Landings



# UGA – Offsite Trials

- The Landings





# UGA – Offsite Trials

- Valdosta Country Club



# UGA – Offsite Trials

- Valdosta Country Club



A photograph of a golf green with a flagstick and a yellow flag, surrounded by trees and a path.

# UGA – Offsite Trials

- **Valdosta Country Club**





# Putting Green Trials

- **University Trials during 2012 in Georgia**



# Putting Green Trials



- University Trials during 2014 in Georgia

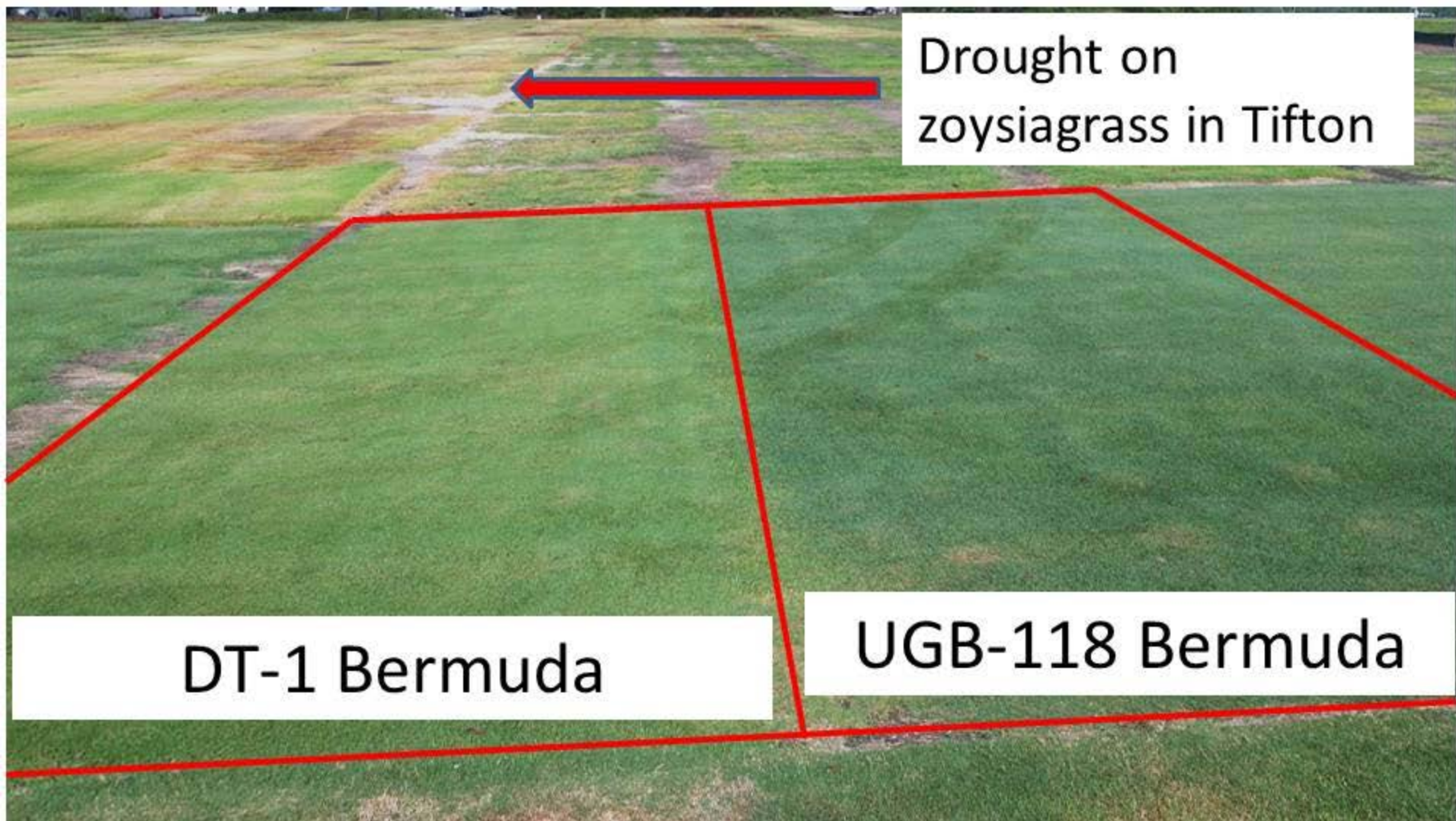


# Experiment Station Trials

A wide-angle photograph of a large experimental field. The field is divided into numerous rectangular plots of varying shades of green, indicating different grass treatments or stages of growth. The plots are arranged in long, parallel rows that recede into the distance. In the background, there is a long, low building with a yellow facade and several large windows or doors. Trees and a clear sky are visible beyond the building. The overall scene is bright and sunny.

- **Bermuda**





- **Bermuda & Zoysia**



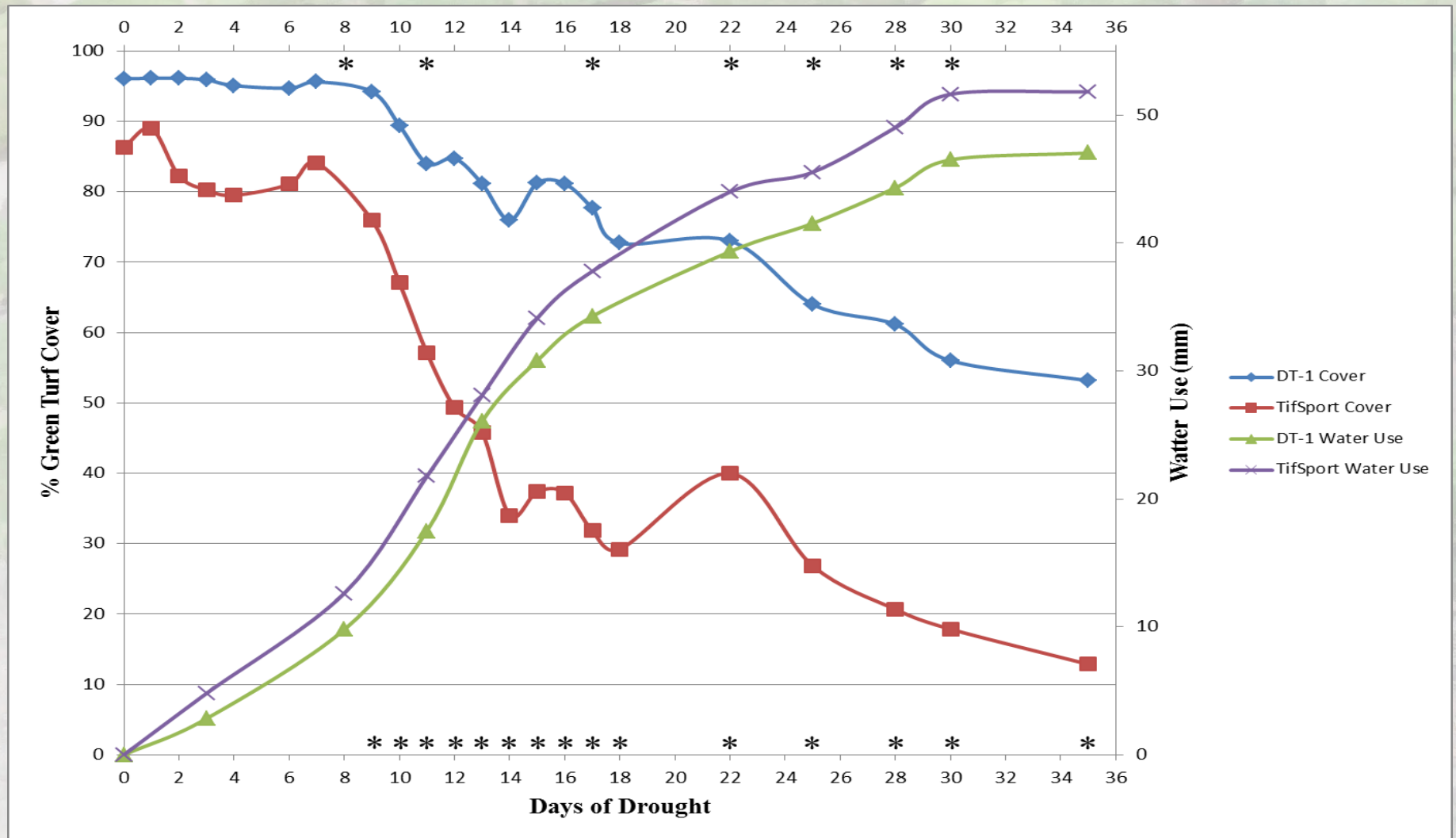
# Experiment Station Trials



- Zoysia

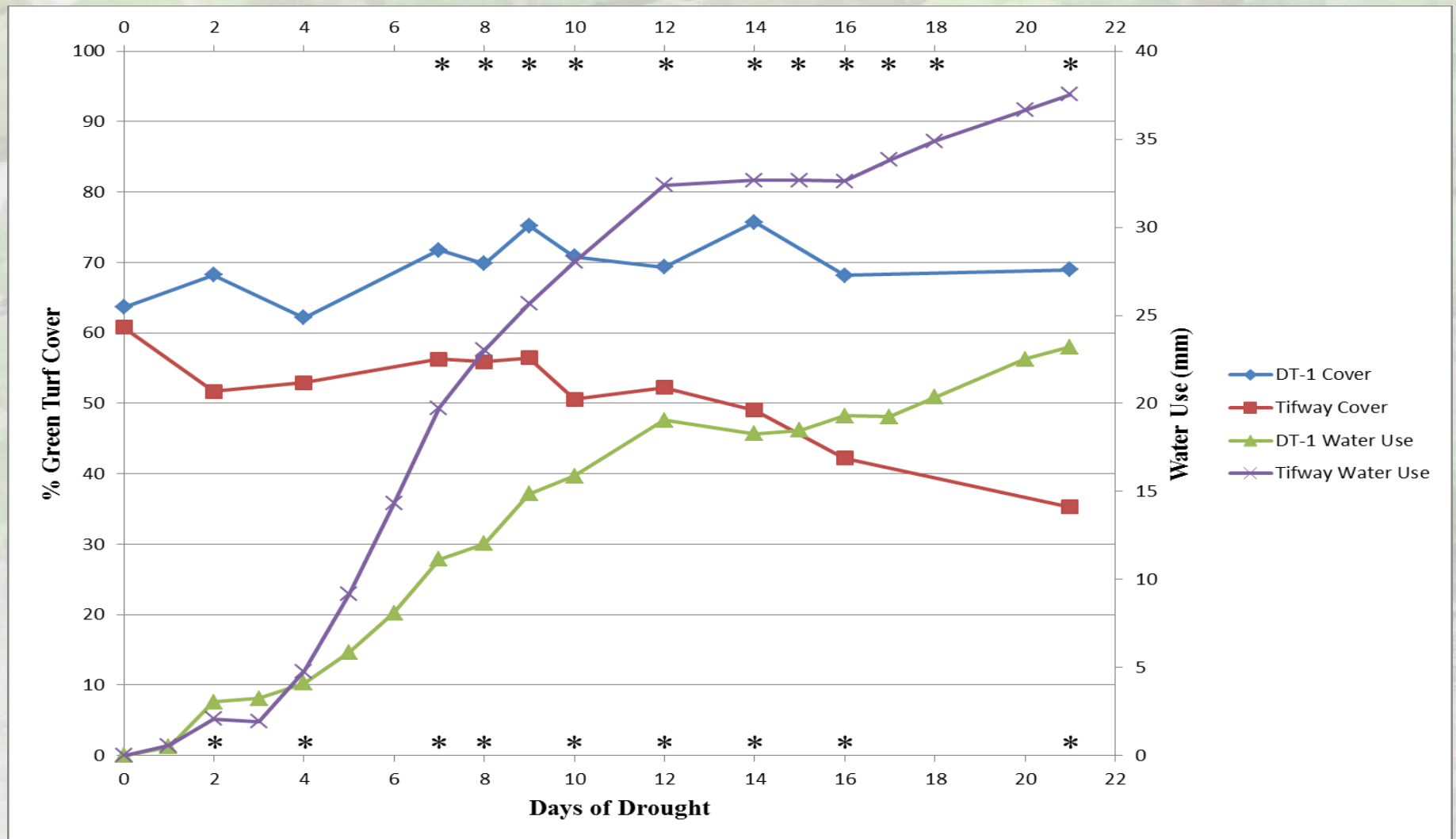


# Drought





# Drought





# Drought Trials

- Golf Course Trials during 2012 in Georgia



# Drought Trials

A photograph of a golf course green. The grass is green but shows signs of drought stress, with some brown patches. Two red cylindrical markers are placed on the green. In the background, there are trees and a covered area. A semi-transparent white box with the text 'Drought Trials' is overlaid at the top.

- **Golf Course Trials during 2012 in Georgia**



A photograph of a well-maintained green lawn in front of a brick house. The lawn is covered in long shadows from trees on the left. A concrete sidewalk curves along the right side of the lawn. A large, semi-transparent white box with black text is overlaid on the top half of the image.

# **Drought/Shade Trials**

- **Home Lawn Trials during 2012 in Georgia**





# **Drought/Shade Trials**

- **Home Lawn Trials during 2013 in Georgia**





# Questions???

**Brian Schwartz**

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