



# In ground sensors measure amount of water extracted from the soil

#### Tifway

**DT-1** 

### **Short-Term Drought (Atlanta)**



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## **2010 USDA Trials**





#### Celebration



## Long-Term Drought (Florida)

Table 2. Mean turfgrass quality of three bermudagrasses mowed at 1.5" averaged over four dates in 2010, 2011, and 2012 after sustained droughty conditions in the Linear Gradient Irrigation System (LGIS) evaluation at the West Florida Research and Education Center (WFREC) in Jay, FL<sup>1</sup>.

NOTE:	Irrigation level (% ET <sub>0</sub> )								
Genotype	120	105	80	54	37	25	13	3	Average
a start of	Visual rating <sup>2</sup>								
DT-1	<b>6.8</b> a <sup>3</sup>	6.6 a	6.4 a	6.3 a	6.3 a	5.8 a	<b>4.7</b> a	<b>4.6</b> a	5.9
Celebration	4.7 b	4.5 b	4.3 b	3.9 b	3.7 b	2.8 c	2.1 c	2.2 c	3.5
Princess-77	4.7 b	4.6 b	4.3 b	4.3 b	4.1 b	3.9 b	3.1 b	2.9 b	4.0

<sup>1</sup>Field trial planted during 2010.

<sup>2</sup>Turf quality was rated on a 1 to 9 scale with 1 = dead, 5 = acceptable, and 9 = excellent. <sup>3</sup>Means within columns followed by the same letter are not significantly different according to Fisher's LSD ( $P \le 0.05$ ).

## Long-Term Drought (Florida)

University Drought Trial during 2011 in Florida



## Long-Term Drought (Florida)

Celebration

TifTuf (DT-1) ·DT-1' Bermudagrass

'Celebration' Bermudagrass

#### **TifTuf vs Tifway 419 water savings example**



#### Calculations:

16,200 sq ft = 2,332,800 sq inches½ inch average irrigation = 1,166,400 cubic inches / week231 cubic inches / gallon = 5,049 gallons / weekat 52 weeks = 262,566 gallons per year to irrigate Tif 419 lawn50% less water used with TifTuf Bermuda = 131,283 gallon water savings per year

Home Lawn: \*16,200 square feet Water Savings: \*131,283 gallons/year

#### \* Assumes:

Square footage equal to 2 full truck loads of turf

#### \* Assumes:

Average Irrigation rate of 1/2 inch per week for Tif 419 Bermuda, and a 50% water savings for TifTuf vs Tif 419 (50% estimated water savings based on 38% less water used in drought studies, while maintaining 95% more green cover)

## **Wear Trials**

AVAN

#### **University Trials during 2012 in Georgia**

**Wear Trials** 



## Results

Highest traffic tolerance 2014
DT-1
Astro

- Lowest traffic tolerance 2014
- 1. NuMex Sahara
- 2. OKS 2009-3
- 3. Tifway

#### Establishment Trials (2011, 2012, & 2013)

	Establishment <sup>1</sup>					
Grass	South <sup>2</sup>	North <sup>3</sup>	All			
10		% green cover				
TifTuf (DT-1)	<b>58</b> a <sup>4</sup>	75 a	69 a			
Tifway	31 b	48 c	42 b			

<sup>1</sup>Turfgrass establishment was visually rated on a 1-100% scale during year 1 of both trials. <sup>2</sup>Testing locations were in College Station, TX, Gainesville, FL, and Tifton, GA. <sup>3</sup>Testing locations were in Dallas, TX, Griffin, GA, Raleigh, NC, and Stillwater, OK. <sup>4</sup>Means within columns followed by the same letter are not significantly different according to Fisher's LSD ( $P \leq 0.05$ ).

The faster initial growth rate of TifTuf highlighted in this trial will also translate into faster regrowth in recovery from wear on athletic fields.

## **Sod Strength Trials**



The greater sod strength, due to a denser root structure, shown in this trial, allows TifTuf (DT-1) to hold a block consistently.

### **Shade Trials**

#### Home Lawn Trials during 2013 in Georgia

## **Shade Trials**

#### Home Lawn Trials during 2014 in Georgia

#### **Bermudagrass Shade Trial**

2015 Tifton (June)



## **Spring Green-Up**

Table 5. Mean turfgrass cover and color of five bermudagrasses mowed at 1.5" in an irrigated, nonstressed field trial during 2012 and 2013 in Tifton, GA<sup>1</sup>.

	Turf cover <sup>2</sup>					
Genotype	Estab.	Green-up	Summer	Dormancy		
	% green cover					
DT-1	<b>44</b> $b^3$	75 a	91 a	65 a		
Celebration	55 a	62 b	89 a	26 b		

#### TifTuf holds its color, even under the extreme heat of South Texas summers



TifTuf and Tif419 pictured here on the same farm near Jourdanton TX, with the same irrigation rate, during extremely hot conditions in late July

#### TifTuf (DT-1) Bermuda

#### Tifway 419 Bermuda



TifTuf and Tif419 pictured here on the same farm near Jourdanton TX, with the same irrigation rate, during extremely hot conditions in late July

#### **Fall Dormancy**

Table 6. Mean turfgrass quality, cover, and color of two bermudagrasses mowed at 1.5" in an irrigated, non-stressed<sup>1</sup> field trial during 2010 and 2011 in Tifton,  $GA^2$ .

	Turf quality <sup>3</sup>				Turf cover <sup>4</sup>			
Genotype	April	June	Oct. <sup>1</sup>		April	June	Oct.	
	Visual rating				% green cover			
DT-1	$6.3 a^5$	7.5 a	8.3 a		89 a	85 a	63 a	
Tifway	5.8 a	6.0 a	6.0 b	in the	80 a	83 a	25 b	

#### TifTuf has better color retention in Fall / Winter

Tifway 419 Bermuda

TifTuf (DT-1) Bermuda

Tifway 419 and TifTuf pictured here on the same farm near

Jourdanton TX during the first week of January 2016

### TifTuf Bermuda (DT-1)

- Superior hybrid cross from (4x) by (2x) parents which has been tested for over 22 years
- More **drought tolerant** than Tif419, Celebration, Latitude 36, and Tahoma 31
- Better establishment and cover than Tif419
- Superior traffic tolerance than Tif419 or Celebration
- Higher sod strength than Tif419 in the Spring and Fall
- Faster Spring green-up than Tif419 and Celebration
- Greater color retention than Tif419 and Celebration during the onset of fall/winter dormancy