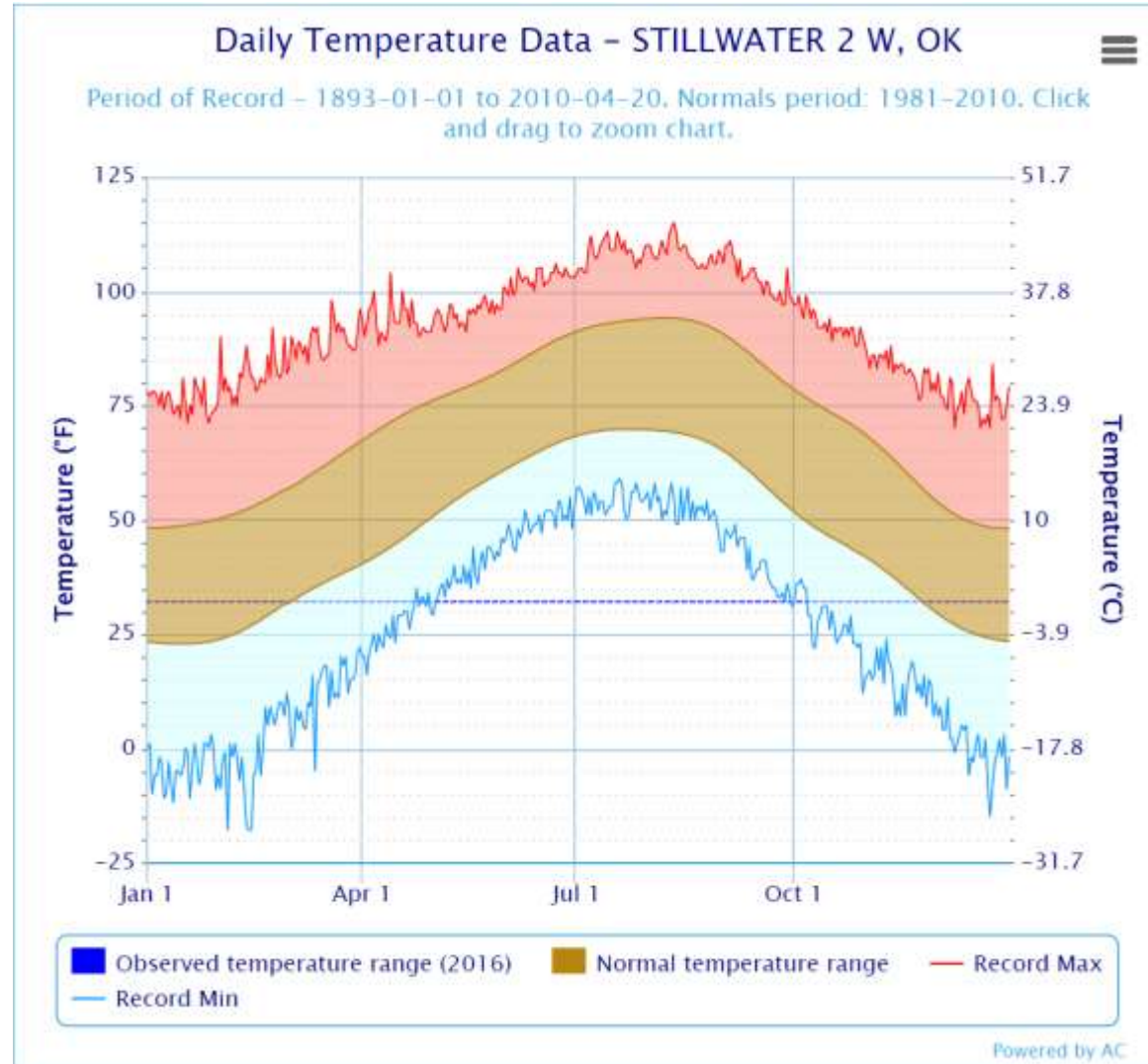


Development of Cold Hardy Bermudagrass for Golf Course Putting Greens

Dr. Justin Moss, Dr. Yanqi Wu, Dr. Dennis Martin, Dustin Harris

Area of Adaptability



Bermudagrass vs. Bentgrass

Advantages

- More tolerant of heat and drought stressors
- Less susceptible to disease
- Better recuperative ability
- Less weed control issues

Disadvantages

- Requires a thermal cover to survive in cold winter climates
- Requires frequent cultivation practices



Developmental Objectives

- Increased genetic diversity
- Improved aesthetic quality
- Improved cold tolerance
- Commercial productivity



2015 Bermudagrass Putting Green Genotype Evaluation

- Initiated July 2015
- 17 experimental genotypes
- 4 commercial standards
- 6' x 6' plots
- 4 replications



November 2016



November Snapshots



OSU 14x22



MiniVerde



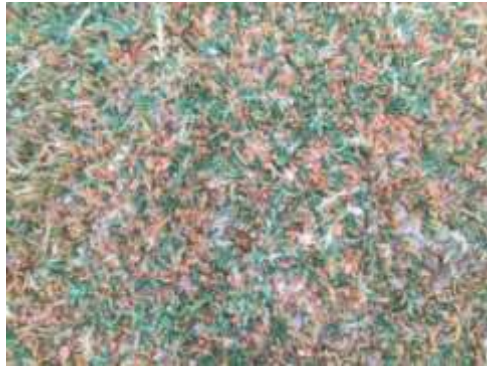
OSU 11x1

Preliminary Results



Entry	Turf Quality	NDVI	Establishment	Fall Color Retention
OSU 11X1	7.063a	0.703abcd	67.3abcd	6.50ab
OSU 12X11	4.933j	0.639bcdef	55.2bcdefg	3.50hi
OSU 12X17	6.563bcd	0.719a	60.2abcdef	6.00abcd
OSU 13X13	5.286ij	0.584f	42.8efgh	2.63i
OSU 14X10	5.786gh	0.633def	35.5gh	4.71fg
OSU 14X22	6.462cde	0.634cdef	23.7h	6.88a
OSU 1X10	6.400def	0.654abcdef	50.5defg	6.00abcd
OSU 1X20	6.063efg	0.655abcdef	61.9abcde	6.50ab
OSU 3M3	6.875abc	0.693abcd	72.6abc	5.75bcde
OSU 3X15	6.625abcd	0.709abc	52.3cdefg	6.38ab
OSU 63X18	6.563bcd	0.714ab	79.3a	6.88a
OSU 77X16	7.000ab	0.685abcde	70.6abcd	6.13abcd
OSU 7X19	6.063efg	0.689abcde	56.2bcdefg	4.88efg
OSU 80X18	5.800gh	0.614ef	40.3fgh	4.13gh
OSU 8X12	6.000efg	0.650abcdef	65.5abcd	4.88efg
Tifdwarf	6.000efg	0.615ef	59.6abcdef	6.13abc
OSU MG	5.500hi	0.630def	75.6ab	5.13def
Champion	5.938fgh	0.670abcde	64.4abcd	6.25abc
Miniverde	6.438cde	0.715a	73.1abc	6.75a
Sunday	6.563bcd	0.635cdef	68.9abcd	6.63ab
OSU #2	6.563bcd	0.700abcd	74.4ab	5.38cdef
lsd	0.474	0.0754	21.07	0.885

Disease Complex of June 2016



Recovery (August 2016)



Early Spring Greenup



May 2017



Development of Cold Hardy Bermudagrasses for Specialty Sod Production in Oklahoma

Oklahoma State University

Justin Quetone Moss, Associate Professor

Yanqi Wu, Professor

Dustin Harris, Extension Assistant



Objectives

1. Develop bermudagrass genotypes with improved cold tolerance and high aesthetic quality under golf course putting green maintenance practices for use on Oklahoma golf courses
2. Evaluate sod/sprig production characteristics of experimental genotypes when being utilized for golf course putting green installations/renovations for local sod producers
3. Disseminate the findings through a peer-reviewed journal article, Oklahoma Turfgrass Research Foundation Annual Conference, and other OSU extension and outreach events.

2016 Genotype Trial

- 13 experimental genotypes
- 4 commercial standards
- Planted September 2016
- 8'x8' plots
- 4 replications



2017 Genotype Trial

- 17 experimentals
- 4 commercial standards
- 4 replications
- 4'x4' plots



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Thank you!

