



2019 & 2020 Sugarcane Aphid Management on Forage Sorghum Research Trials at MAC



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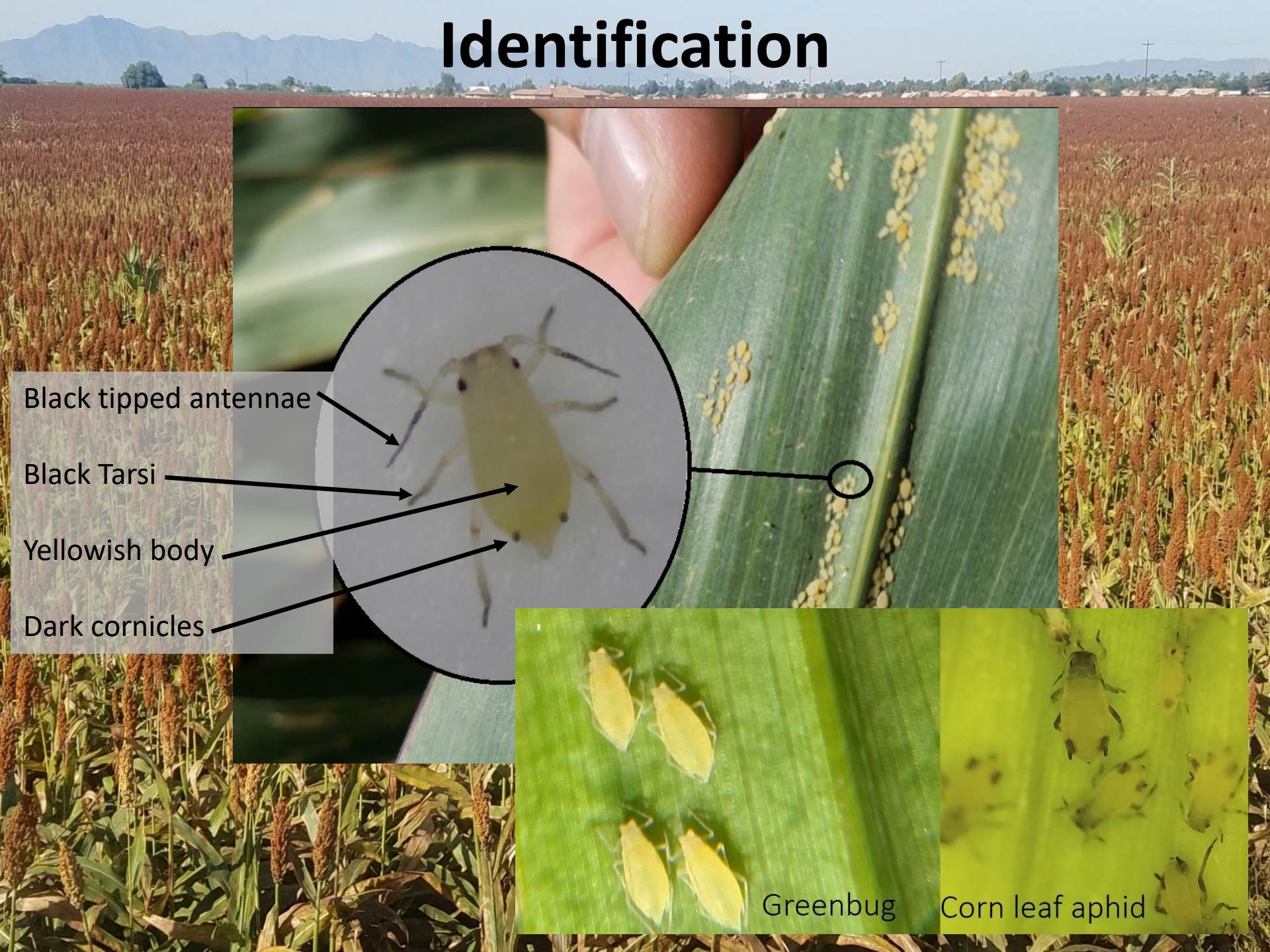


THE UNIVERSITY OF ARIZONA

Cooperative Extension

Field Crops IPM

Identification



Black tipped antennae

Black Tarsi

Yellowish body

Dark cornicles

Greenbug

Corn leaf aphid

Sampling & Action Threshold

- Determining when to spray varies from state to state and sometimes even within a state.
- Grain vs forage sorghum
- Typically within any given field, any of the thresholds used will be effective and will trigger an insecticide application at about the same time.
- Examples of thresholds:
 - Spray when 25% of the plants are infested with a minimum of 50 aphids per leaf
 - Spray when a field reaches a level of 50 to 125 SCA per leaf
 - Spray when 20 – 30% (depending on growth stage) of plants are infested with localized areas of honeydew and established colonies are present



Quick Aphid Checker

Estimate the number of sugarcane aphids (SCA) per leaf to help time foliar insecticides for SCA control on sorghum. Each photo represents an estimate from the table. For example, photo A shows about 12 aphids.

Estimate the Number of Aphids per Leaf		
Photo	Range	Estimate
A	1-25	12
B	26-50	38
C	51-100	75
D	101-500	300
E	501-1000	750
F	>1000	1500

Field Average = $\frac{\text{Total of All Estimates}}{\text{Total \# of Leaves Examined}}$

Learn more about sugarcane aphids at <http://txscan.blogspot.com>

Photos courtesy of Travis Ahrens, Mike Brewer, and Pat Porter.

Funding provided by the Texas Grain Sorghum Producers Board and the USDA NIFA Southern IPM Center and Crop Protection and Pest Management Program.

Educational programs of the Texas A&M AgriLife Extension Service are open to all people without regard to race, color, sex, religion, national origin, age, disability, genetic information, or veteran status.

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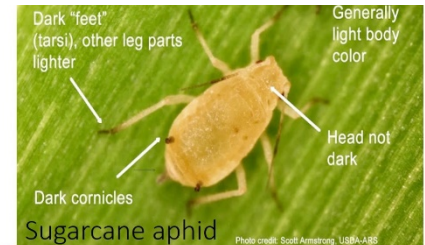
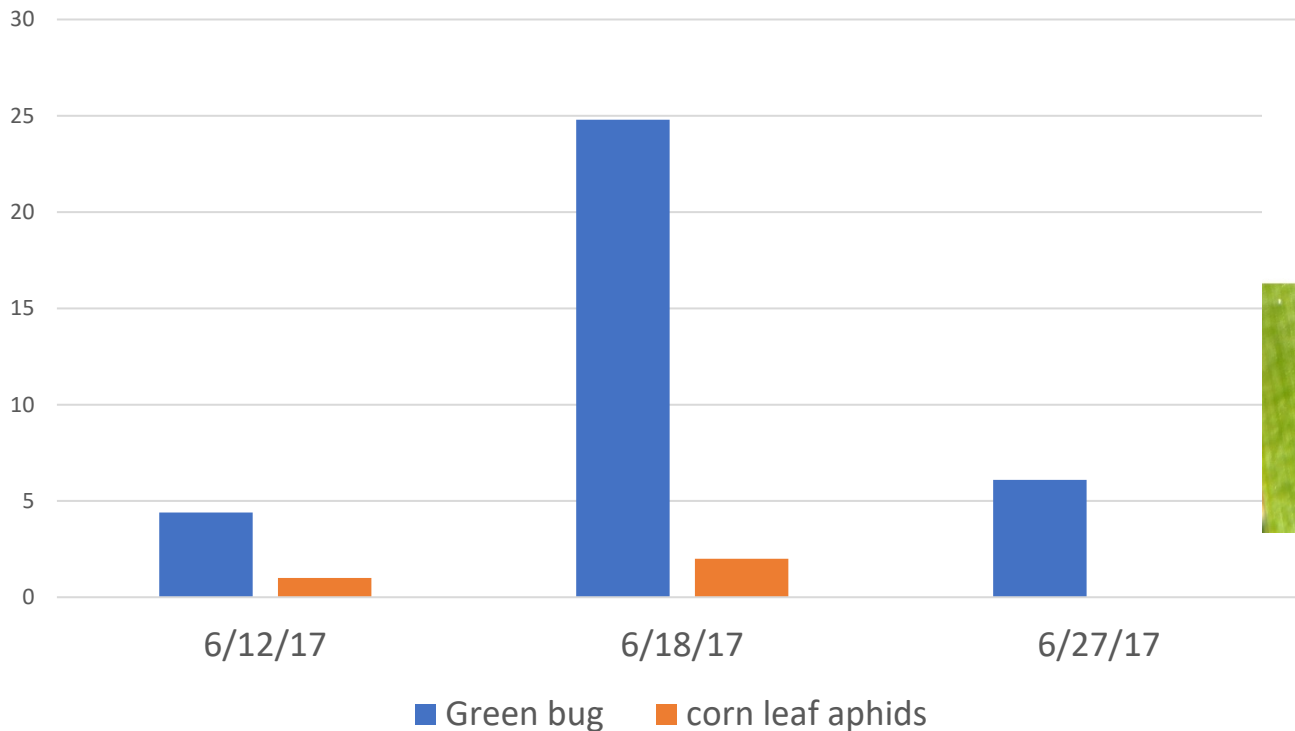
Sampling for Sugarcane Aphid using Quick Aphid Checker

<https://youtu.be/dVZVDZgpHms>



Early Planting Date Trial

Greenbug and corn leaf aphids on early planted forage sorghum



2019 Sugarcane Aphid Trials in Sorghum - MAC

Foliar Treatments

- Sivanto Prime (4 & 7 oz/A)
- Centric (2.5 & 3.4 oz/A)
- Transform (1 & 1.5 oz/A)
- Sefina (6 oz/A)
- Lorsban (32 oz/A)
- UTC

Sivanto Prime Injection at Planting + Foliar Treatments Planting and injection 6/6/2019

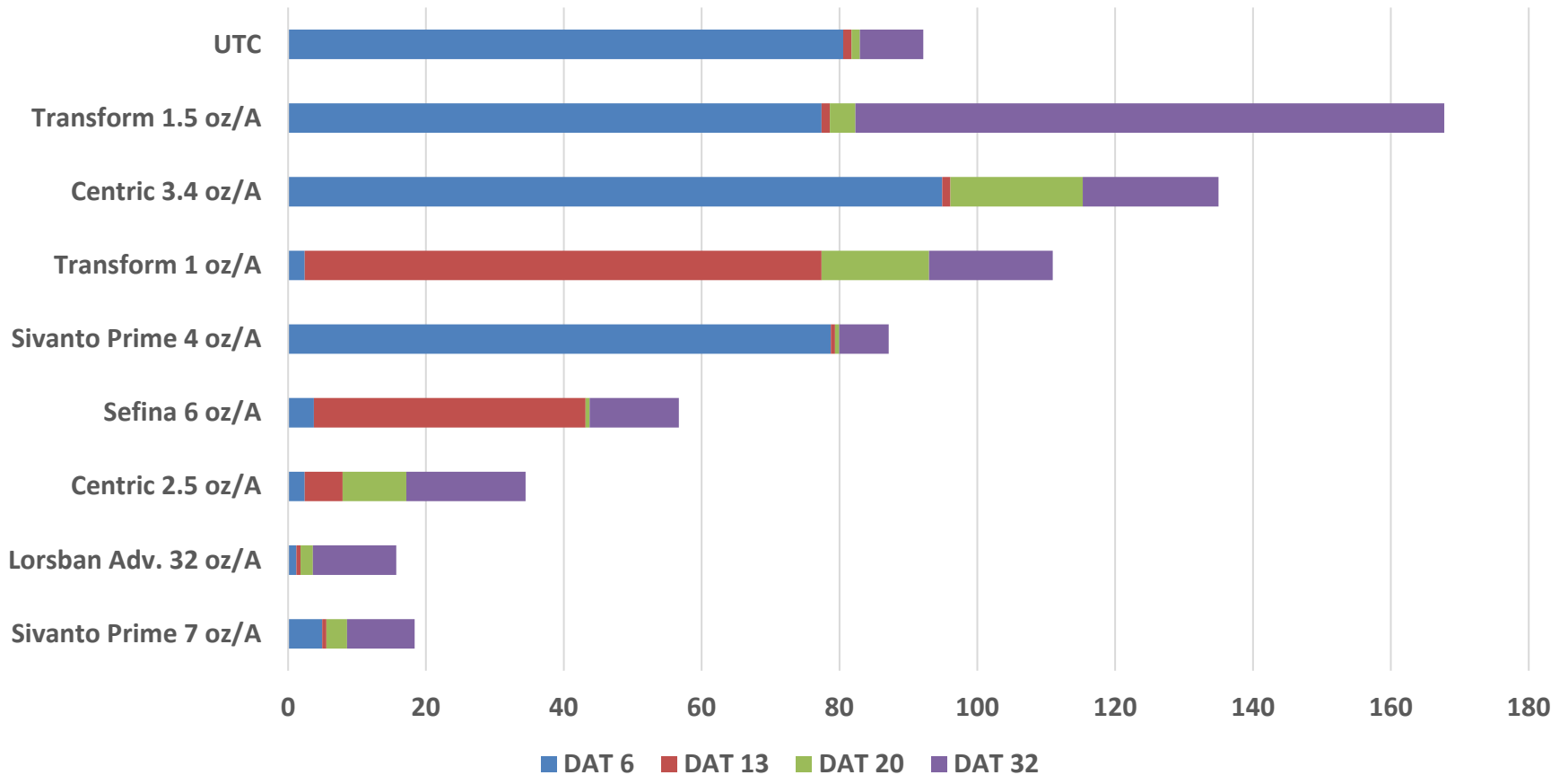
Treatment	Sivanto Prime at planting	Centric 2.5 oz/A foliar spray	Transform 1.5 oz/A foliar spray
8 oz/A	X		
4 oz/A	X		
2 oz/A	X		
8 oz/A	X	X	
4 oz/A	X	X	
2 oz/A	X	X	
8 oz/A	X		X
4 oz/A	X		X
2 oz/A	X		X
UTC1		X	
UTC2			X
UTC UTC			

Planting and injection 6/6/2019

Foliar applications 9/27/2019

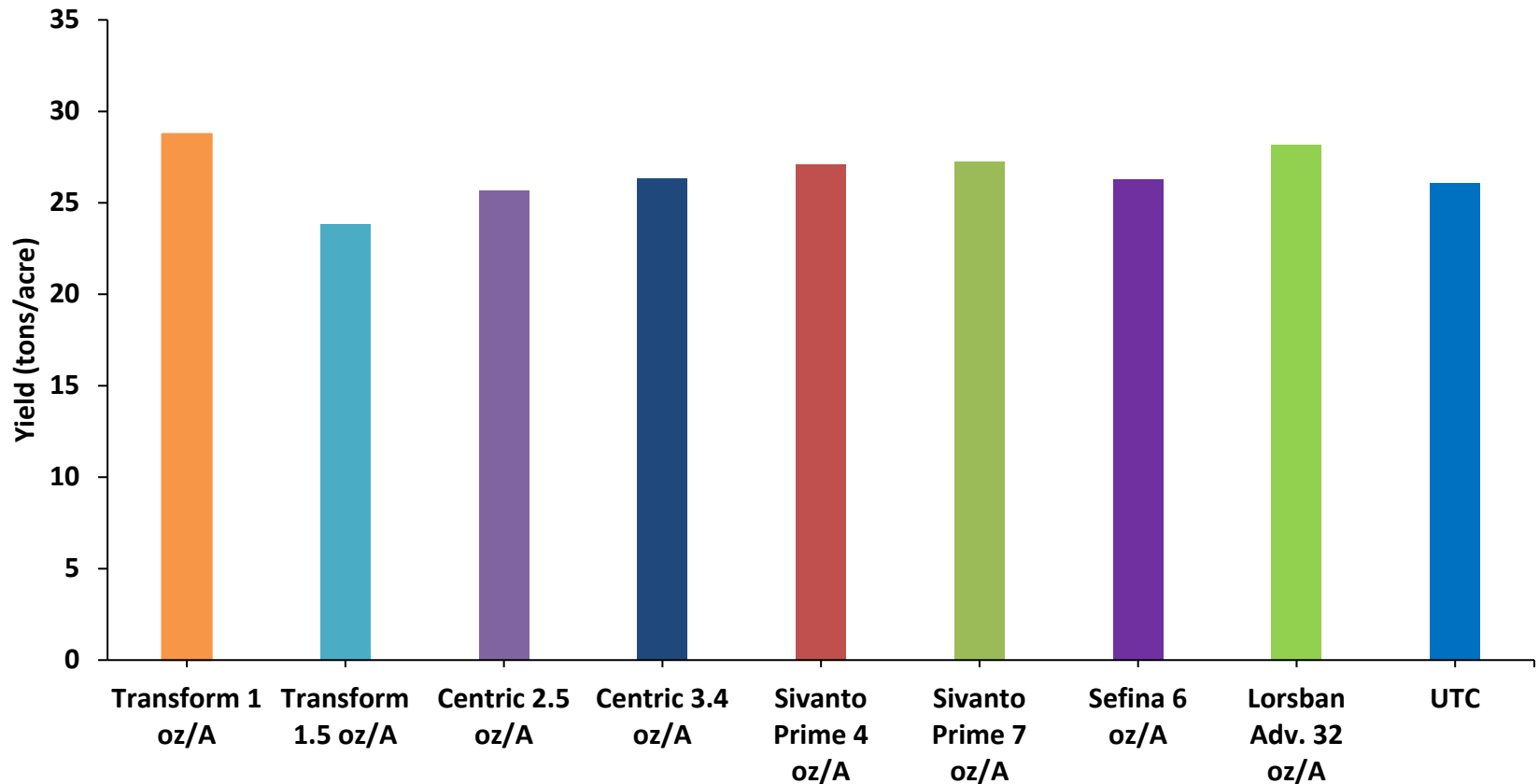
2019 Foliar application trial – SCA populations

Accumulative seasonal population of SCA/leaf for the 2019 foliar application trial in sorghum at MAC



2019 Foliar application trial – Sorghum yields

Forage Sorghum Yields (ton/A) from the 2019 foliar treatment trial to control SCA at MAC Trial

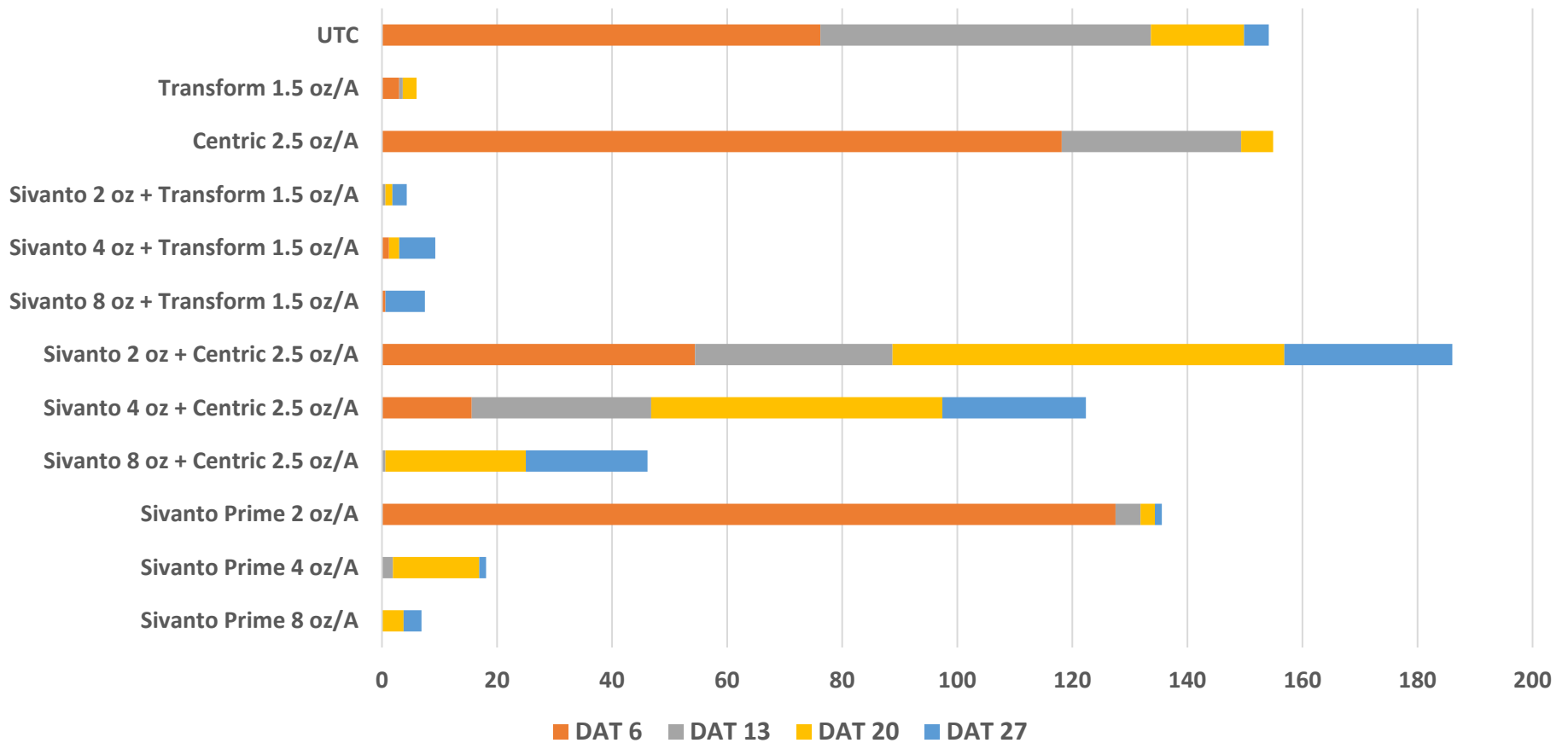


In-furrow (injection) Application



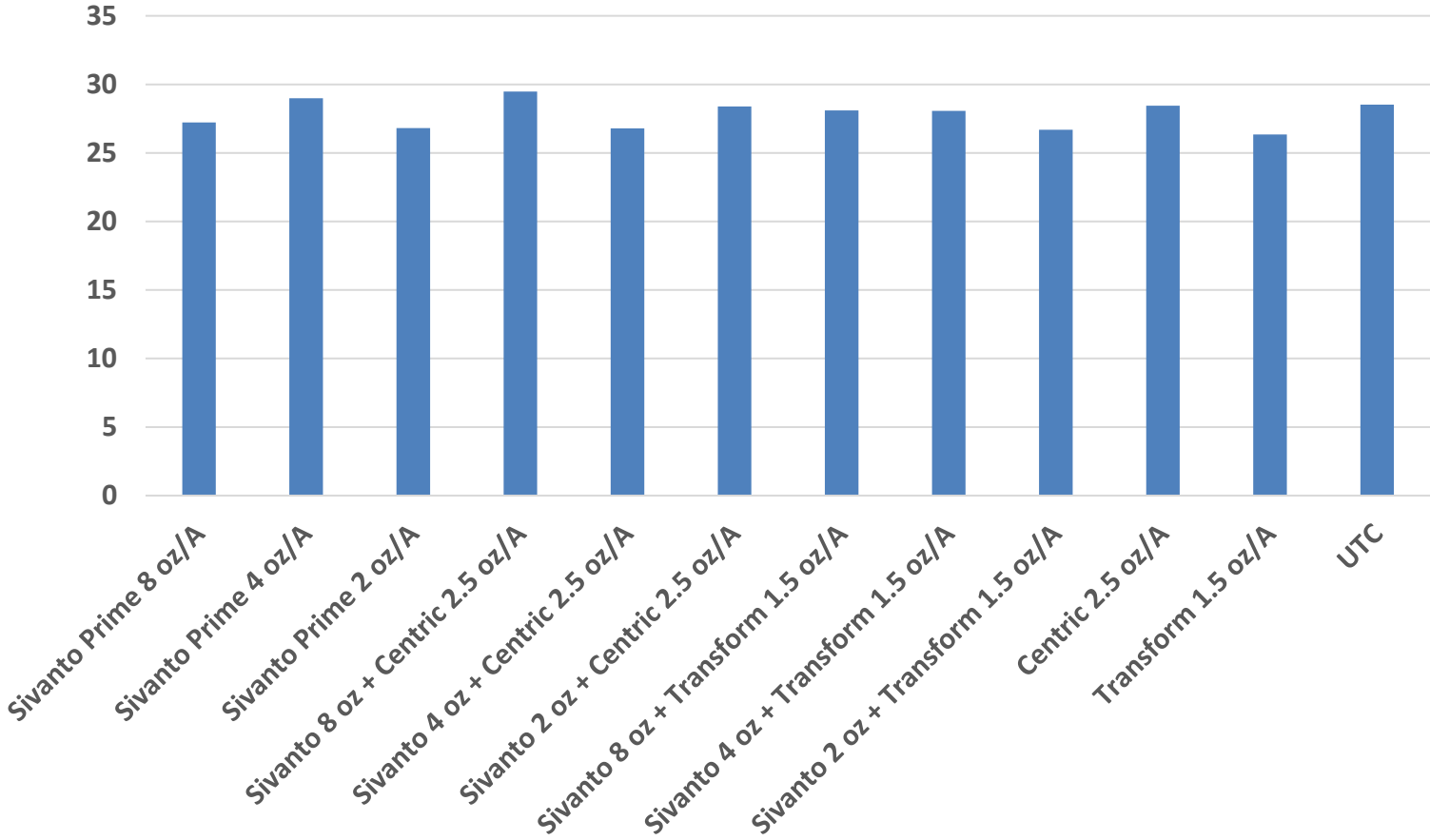
2019 In-furrow injection + foliar applications trial – SCA populations

Accumulative seasonal population of SCA/leaf for the 2019 in-furrow injection trial in sorghum at MAC



2019 In-furrow injection + foliar application trial – Sorghum yields

Yield (ton/A) for the 2019 in-furrow injection trial for SCA control in sorghum at MAC



2020 Sugarcane Aphid Trials in Sorghum - MAC

Foliar Treatments

- Sivanto Prime (4 & 7 oz/A)
- Centric (2.5 & 3.4 oz/A)
- Transform (1 & 1.5 oz/A)
- Sefina (6 oz/A)
- Lorsban (32 oz/A)
- UTC



Sivanto HL Injection at Planting + Foliar Treatments

Treatment	Sivanto HL at planting	Centric 2.5 oz/A foliar spray	Transform 1.5 oz/A foliar spray
4 oz/A	X		
2 oz/A	X		
1 oz/A	X		
4 oz/A	X	X	
2 oz/A	X	X	
1 oz/A	X	X	
4 oz/A	X		X
2 oz/A	X		X
1 oz/A	X		X
UTC1		X	
UTC2			X
UTC UTC			

- Planting and injection 6/5/2020
- Foliar application for Injection trial 8/24/2020
- Application Foliar only trial 9/9/2020

Symptoms of SCA damage & comparison among treatments in 2020 Foliar trial at MAC

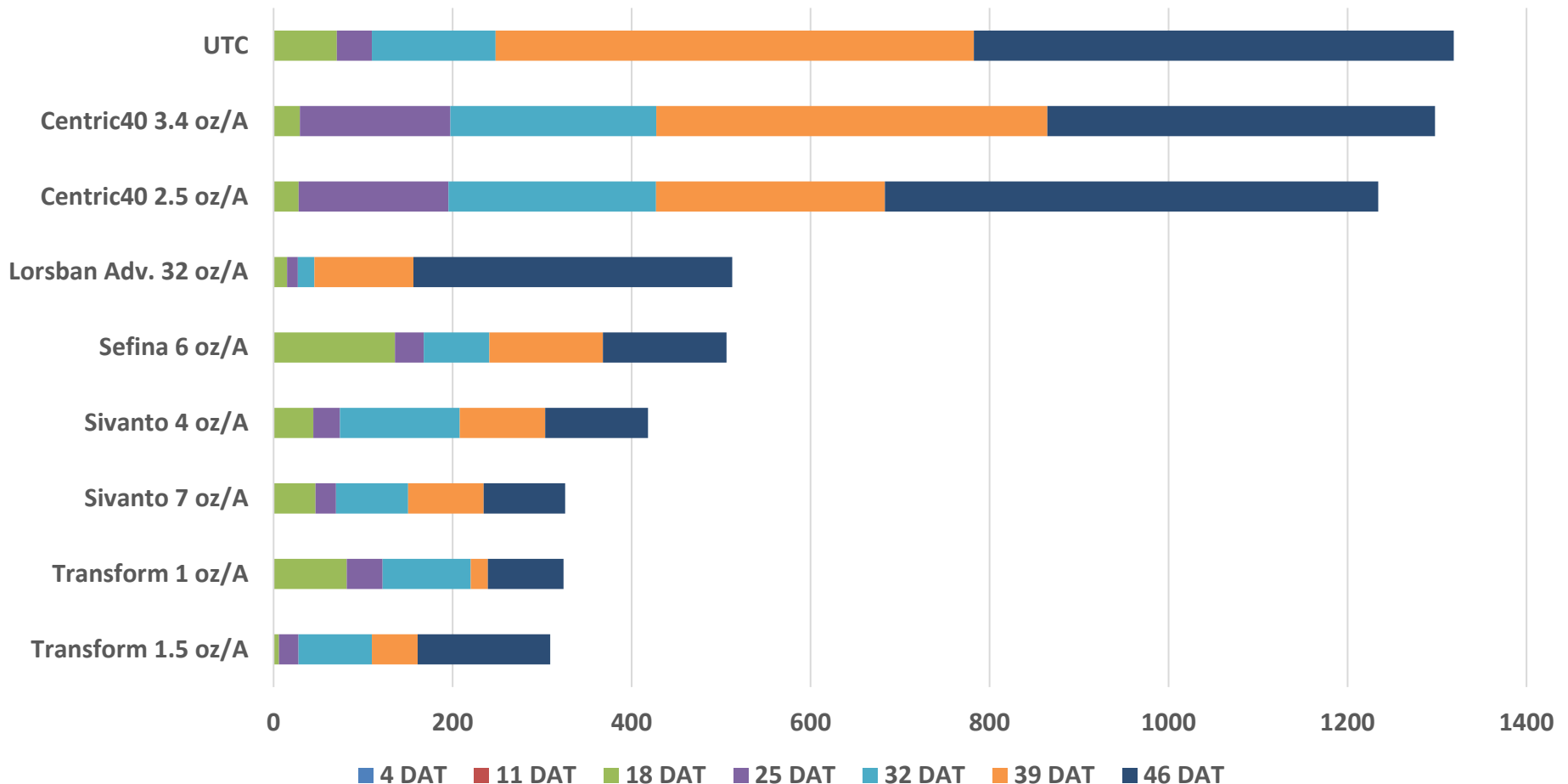


Symptoms of SCA damage & comparison among treatments in 2020 In-furrow Injection trial at MAC



2020 Foliar application trial – SCA populations

Accumulative Number of SCA per leaf for foliar application efficacy trial in sorghum at MAC - 2020



VIRTUAL TOUR OF THE 2020 SCA EFFICACY TRIALS AT MAC

- 2020 SCA Injection trial in sorghum at MAC
(<https://youtu.be/LrklZs5Q4f0>)
- 2020 SCA Foliar trial in Sorghum at MAC
(https://youtu.be/l_XBSFsmxhA)

Best Management Practices for SCA

- Control Johnson grass and other sorghum species around field
- Plant early to avoid infestations early in the season
- Scout early and often
- Do not let SCA populations develop to large numbers
 - Treat when 20% of leaves checked have 50 or more SCAs
 - Use common sense concerning pending weather, number of fields needing to cover, etc.
- Use an efficacious insecticide; preferably one that is soft on beneficials
 - Avoid pyrethroids for other pests if possible
- Good spray coverage is key for SCA control

ACKNOWLEDGEMENT

Funding

- **USDA-NIFA-AFRP**
- **Western IPM Center**
- **University of Arizona**
- **Maricopa County Electric District #8**
- **Various Agrochemical Corporations**



- **Collaborators**

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