Sugarcane Aphid (SCA)
SCA 2015

• Moved further North and West in 2014
  – Prevalent SE winds in 2015 may be responsible for this movement.

• Yellow sugar cane aphid was also found in northern Texas panhandle and central OK
Distribution of SCA in the U.S. in 2014
Distribution of SCA in the U.S. in 2015

2015 Sugarcane Aphid, *Melanaphis sacchari*, Occurrence on Sorghum
September 30, 2015

2013:
- 4 States
- 38 Counties

2014:
- 12 States
- 312 Counties

2015:
- 17 States
- 417 Counties

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Proper Pest ID: Which one is SCA?

A. *Melanaphis sacchari* (Zehntner)
B. *Schizaphis graminum* (Rondani)
C. *Rhopalosiphum maidis* (Fitch)
D. *Sipha flava* (Forbes)

Pictures Courtesy of S. Armstrong, USDA
Proper Pest ID: Which one is SCA?

A. Does not produce toxins but can transmit viruses
B. Produces toxins
C. Does not produce toxins and rarely is a problem in sorghum
D. Produces toxins and transmits a virus
IPM for SCA

• Plant tolerant hybrids with insecticide on seed
• Scout fields frequently
• Make plans to spray as soon as aphids appear
• Spray when 50 aphids/leaf on 20% of plants
• Tolerant hybrids may not have to be sprayed as frequently or as soon as a susceptible hybrid
# Sorghum Partners SCA Tolerant Hybrids

<table>
<thead>
<tr>
<th>Hybrid</th>
<th>Maturity</th>
<th>Tolerance level</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP 7715</td>
<td>Med-full</td>
<td>Highly</td>
</tr>
<tr>
<td>SP 73B12</td>
<td>Med-full</td>
<td>Highly</td>
</tr>
<tr>
<td>SP 78M30</td>
<td>Med-full</td>
<td>Highly</td>
</tr>
<tr>
<td>SP 68M57</td>
<td>Medium</td>
<td>Moderately</td>
</tr>
<tr>
<td>SP 70B17</td>
<td>Med-full</td>
<td>Moderately</td>
</tr>
<tr>
<td>SP 6929</td>
<td>Med-full</td>
<td>Moderately</td>
</tr>
<tr>
<td>NK7633</td>
<td>Med-full</td>
<td>Moderately</td>
</tr>
<tr>
<td>K73-J6</td>
<td>Med-full</td>
<td>Moderately</td>
</tr>
</tbody>
</table>

1 – 3 = Highly Tolerant, 3.1 – 6 = Moderately Tolerant, 6.1 – 9 = Susceptible

Tolerance Level based on independent testing conducted by USDA-ARS entomologist Dr. Scott Armstrong, Stillwater, OK.
## The mechanisms of plant resistance

<table>
<thead>
<tr>
<th>Antixenosis (Non preference)</th>
<th>Antibiosis</th>
<th>Tolerance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insect does not desire to be on the plant</td>
<td>There is an inherent factor (chemical or morphological) in the plant that reduces reproduction and number of insects on that plant</td>
<td>The plant will grow and reproduce even when insect is on it. When threshold is reached may require spraying</td>
</tr>
</tbody>
</table>
B11055  B11053

Dr. Bill Rooney, Texas AgriLife, Weslaco, TX Fall 2013
Best Management Practices

• Critical to make sure to use enough water
  – Air 5 gal/ac not recommended on forages
    • Canopy penetration by air may not be adequate in all cases
  – Ground 10 gal/ac min, but 15 would probably be better to penetrate the canopy
    • Utilize AI nozzle with 60 – 70 lbs. pressure to get into canopy

• LSU threshold
  – 50 aphids or 20% of plants
  – Dr. David Kerns observed that the key to getting complete control starts with the first insecticide application. Therefore, use recommended rates, pressures and spray volumes.
For more information please visit: sorghumpartners.com

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1-855-SORGHUM

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