



Pest e-alerts



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Two “Sugarcane” Aphids That Are Infesting Sorghum in Oklahoma

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We have received reports of aphids that were infesting sorghum that didn't appear to be greenbugs. Samples from Anadarko and Chickasha areas were confirmed to be yellow sugarcane aphids (*Silpha flava*). Additional samples from Anadarko and Lane were identified as the sugarcane aphid (*Melanaphis sacchari*). Most Oklahoma producers are probably unfamiliar with these aphids, as the yellow sugarcane aphid is an infrequent pest of sorghum in Oklahoma and the sugarcane aphid is basically a new pest of sorghum that was first seen in 2013. While both are called “sugarcane aphids” both are also pests of sorghum. Despite their name and common plant hosts, they are different in appearance, and different in how they cause damage to sorghum. We will talk about both aphids; how to identify them, their damage potential, and control options.



Sugarcane aphid, *Melanaphis sacchari*

This is a new aphid pest of sorghum, first noted in 2013 in 38 counties that included counties in South and East Texas, the Lower Rio Grande Valley of Texas, southwest Louisiana, eastern Mississippi and in Bryan County, Oklahoma (see map next page).

This aphid developed large populations in sorghum (see next page), producing large amounts of honeydew that interfered with harvest operations because the honeydew choked combines and caused some yield loss. While it seems to have “switched” its preferred host from sugarcane to sorghum in the U.S., it is a key pest of sorghum in tropical and subtropical regions worldwide.



Yellow sugarcane aphid, *Silpha flava*

The yellow sugarcane aphid is a tropical pest that has long been known as a pest of sorghum and sugarcane from south Texas and Louisiana to Florida. It is an occasional pest of sorghum in Oklahoma, and does not normally overwinter here.



IDENTIFICATION: There are several aphids that infest sorghum including the sugarcane and yellow sugarcane aphid, the greenbug and the corn leaf aphid. The sugarcane aphid is light yellow, with dark, paired “tailpipes” called cornicles and dark “feet” called tarsi. Yellow sugarcane aphids are bright yellow with many hairs on their body and no extended cornicles. Greenbugs are lime green with a darker green stripe down the middle of their back and have dark tarsi and only the tips of the cornicles are black; corn leaf aphids are olive green with a dark head and legs.

Sugarcane aphid



Yellow sugarcane aphid



Greenbug



Corn leaf aphid



BEHAVIOR: Both sugarcane and yellow sugarcane aphids colonize the lower surfaces of the lower leaves of sorghum, and then move up to newer leaves. Their feeding causes red or brown leaf discoloration on both sides of the leaf.

DAMAGE: Sugarcane aphids start out as small colonies but can quickly grow. As they feed, they produce large amounts of sticky honeydew that can coat the leaf surfaces of the plant. The honeydew supports the growth of a black fungus called “sooty mold”. While feeding by the aphid can cause some direct yield loss, it is the production of large amounts of honeydew that coats the leaves and interferes with harvest by clogging the combine and slowing it from moving material through the machine. This honeydew also prevents the separation of the grain from the stalks and leaves so that grain is left on the ground. Texas producers reported up to 50% losses in 2013.

Yellow sugarcane aphids can also cause damage, but they are more of a problem in sorghum seedlings, where even small colonies can kill plants and reduce plant stands. As sorghum grows the plants become more tolerant to the aphids. In addition, unlike sugarcane aphids, yellow sugarcane aphids don’t often build up into large numbers in maturing sorghum. If they do in mature sorghum we use greenbug treatment thresholds as a guideline for their control.

CONTROL SUGGESTIONS:

Sugarcane aphids: We have had little experience with this aphid and are relying on data and recommendations generated from Texas, Louisiana and Mexico. When populations of sugarcane aphids increase rapidly, insecticides may be needed to prevent yield losses and honeydew buildup before harvest. Current recommendations are to treat if 30-40% of plants are infested (an infested plant has at least one colony of aphids).

We are currently looking to evaluate insecticides for effectiveness in Oklahoma. Small plot tests conducted Texas at Beaumont and Corpus Christi, showed that Dimethoate 4EC at 1 pint/Acre and Lorsban 4D at 1 quart/Acre provided acceptable control. However, other tests conducted in the Lower Rio Grande Valley looking at Lorsban 4E and Dimethoate were inconsistent; they generally produced about 50% control. Also remember that Dimethoate has a 28 day pre-harvest interval, and Lorsban at the 1 quart rate requires a 60 day pre-harvest interval. Tests also showed that pyrethroids, such as products containing lambda cyhalothrin were ineffective.

Oklahoma obtained a Section 18 Emergency Exemption Label for the use of Transform WG that is in effect until October 31, 2014. It has been effective in tests when used at a rate of 0.75 ounces per acre, and is registered for application at 0.75-1.5 oz/acre. According to Dr. David Kerns, Extension Entomologist at LSU, most applications in Louisiana have been going out at 1 oz/acre. We are currently looking to evaluate registered and potential insecticides for control of this aphid.

Yellow sugarcane aphids: For the yellow sugarcane aphid, we use a threshold identical to that for **greenbugs:**

- *5 leaf stage-through mid-whorl stage:* Visible damage on leaves (red spots/yellow leaves) but before any entire leaves are killed on 20% of plants.
- *Boot-through heading:* Death of one functional leaf per plant.
- *Heading through soft dough:* Death of two functional leaves per plant.

Consult CR-7170, Management of Insect and Mite Pests in Sorghum for suggestions for registered insecticides for control of yellow sugarcane aphids (look under greenbug control) <http://pods.dasnr.okstate.edu/docushare/dsweb/Get/Document-2625/CR-7170web2012.pdf> or pages 302-318 or in the 2014 OSU Extension Agent's Handbook of Insect, Plant Disease and Weed Control.

Finally, we strongly urge producers to check their fields and scout accurately. Do not spray until suggested thresholds are reached, and apply the spray with the highest gallonage possible (5 or more gallons/acre by air, or 10 or more gallons/acre by ground) as spraying too early and with inadequate coverage may require a second application from aphid recolonization.

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