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## **SUGARCANE APHID THRESHOLD LOWERED FOR THE HIGH PLAINS**

Now that we have had at least a week of experience with field-scale sugarcane aphid control in the southern High Plains, it appears that we need to move to a more conservative treatment threshold than the one currently in use. What we are finding in commercial fields and our insecticide trial is that our insecticides do not seem to be working quite as well as they do in more southern locations with higher humidity and less intense sunlight. Whether our environment affects the insects, plants and/or insecticides differently is unknown, and what we are seeing could be a combination of all three factors – or two or one or none, we just don't know. We could also be experiencing insecticide interception by excessive honeydew such that some of the insecticide never gets to the leaf surface. We also do not know the importance of reduction in coverage attributable to aerial application rather than ground application with higher volumes of water. Additionally, we also have reports of narrow row fields (less than 36 inches) having reduced insecticide efficacy, and this of course is a coverage issue.

The preceding paragraph is basically to say that we are not sure what is causing reduced control, and we want to make that clear. However, the prudent thing to do is to initiate insecticide applications sooner, before the aphids reach 50-125 aphids per leaf. For that reason we are recommending the action threshold in use in Mississippi. (see table on next page). The threshold for soft dough stage sorghum is when 30% of the plants are infested and there are localized areas of heavy honeydew and established aphid colonies. This threshold would trigger significantly earlier insecticide applications than our Texas threshold of an average of 50–125 aphids per leaf. The full explanation of the Mississippi threshold can be found here:

<http://www.mississippi-crops.com/2015/02/24/management-guidelines-for-sugarcane-aphids-in-ms-grain-sorghum-2015/>

Note that this document estimates a 21% yield loss if fields at soft dough stage are left untreated after reaching the threshold. Missing an application at the panicle emergence threshold of 20% of plants infested with localized heavy honeydew and established aphid colonies would cause a 67% reduction in yield. Of course another prudent step would be to increase the insecticide rate if possible.

## Sugarcane Aphid Action Threshold for the Texas High Plains

Growth Stage	Threshold
Pre-Boot	20% plants infested with localized area of heavy honeydew and established aphid colonies
Boot	20% plants infested with localized area of heavy honeydew and established aphid colonies
Midge Timing	30% plants infested with localized area of heavy honeydew and established aphid colonies
Soft Dough	30% plants infested with localized area of heavy honeydew and established aphid colonies
Dough	30% plants infested with localized area of heavy honeydew and established aphid colonies
Black Layer	Heavy Honeydew and established aphid colonies in head *only treat to prevent harvest problems **observe Preharvest intervals

The information in this newsletter was found on the web.

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