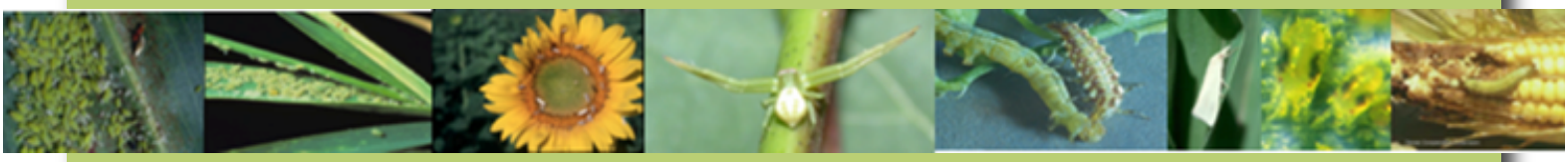
Panhandle Pest Update



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Sugarcane Aphids Moving North to the Panhandle

After last weeks confirmation of Sugarcane aphids (SCA) in Ochiltree county, we have more confirmations and reports of the SCA infesting more fields in the Texas Panhandle. There is confirmation that SCAs are in Castro, Carson, Deaf Smith, Gray, Hansford, Oldham, Randall, and Wheeler counties. And, there are reports of them being found in Moore county. Fields in Donely, Carson, Deaf Smith, Oldham, and Randall counties were at treatable levels. Because of the drastic change in the infestation levels and a little more experience from infestations in the South Plains area, the Extension Entomologists (including myself) and the Extension Agents-IPM believe we should use a different treatment threshold than what is currently being used. The following is an article by Dr. Pat Porter that describes and explains why we have made the change to a different threshold. Also, included are photographs by Dr. Porter showing the severity of the sticky shiny honeydew accumulation when this aphid is not controlled.

Sugarcane Aphid Threshold Lowered for the Texas High Plains

Now that we have had at few weeks 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. Insecticide coverage issues may also be in play. We could 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 and canopy penetration 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

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causing reduced control. We want to make it absolutely clear that there is no reason to think this is a resistance issue. However, with regard to application timing 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 thresholds in use in Mississippi.

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 boot stage 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. Bayer CropScience has some good recommendations for tank additives on the High Plains. Insecticide applications made at relatively low to normal numbers of aphids can be tank mixed with MSO/silicone blends. For heavier infestations they are recommending that Crop Oil Concentrate or High Surfactant Crop Oil be added at the recommended rates. The thought here is do drive the insecticide deeper in to the canopy.

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

These two photos are courtesy of Dr. Pat Porter. They were taken before the sun rose to better show the shiny honeydew.