



Northwest Plains Pest Management News

Volume XI Issue 2

Bailey and Parmer Counties

May 28, 2013

Environmental conditions continue to be dominated by exceptionally dry conditions. A few scattered showers have at least given an indication that precipitation is possible but the current situation is dire. Wide spread soaking precipitation is critical to salvage any hope for a non-irrigated spring seeded crop.

Area wheat continues to struggle due to harsh environmental conditions. Many fields were hayed, cut for silage or green chopped; which was the original plan in some cases but a salvage harvest due to freeze damage in others. Rumors of planting seed shortages have already started, it may be wise to monitor the situation closely.

Planting operations continue at full speed in spring seeded crops, but currently in most if not all cases only irrigated fields have sufficient moisture to establish a crop. Early planted corn is up and growing. A few cotton fields have emerged while others have yet to be planted. Sorghum planting will ramp up shortly.

There are more than 5,000 species of **thrips** distributed worldwide. The dominate species infesting cotton in the Northwest Plains of Texas is the western flower thrips

(WFT) but onion thrips have out numbered WFT on occasion.

Thrips are relatively weak fliers but can drift long distances in the wind. They have an extremely wide host range which includes many cultivated crops, ornamental plants and weeds.

Adult thrips (WFT) are winged slender straw colored insects 1/12 to 1/16 inch long. The wings are fringed and held directly over the body when at rest. Immature thrips look similar to the adult but are generally lighter in color and without wings. Thrips have rasping mouthparts which include a single mandible which the thrips uses to rupture host tissue then the exposed juices are consumed.

Thrips may overwinter in several life stages including hibernating adults, larvae on winter plants or as pupae in the soil. In early spring thrips begin reproducing on available host plants. An adult female will live approximately 60 days during which time she will lay nearly 100 eggs. Depending on species, reproduction may occur sexually or asexually. The thrips life cycle progresses from egg to adult in 8 to 20 days depending on temperature. Multiple generations are produced each year.

Both adults and immature thrips feed on leaves and in the terminal of cotton. Leaf feeding will result in silvering of lower leaf surfaces. Feeding on leaves which have not fully expanded will cause leaves to become distorted. They will be cupped upward and severe infestations will cause the leaves to roll up similar to a clinched fist. The total leaf surface area of the first 5 true leaves may be reduced as much as 50% when severe thrips pressure

Potential Weekly Water Use*	
Crop	Inches per week
Corn	.6-.8
Cotton	N/A
Sorghum	N/A

*Weekly estimated crop water demands (inches of water per week) during the week ending 05/27/2013 based on PET data from Lubbock.



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goes untreated. Heavy thrips pressure may result in stunted plants, delayed fruiting and maturity, and terminal loss. Under favorable growing conditions cotton may “outgrow” moderate thrips pressure. Thrips damage is magnified by conditions which inhibit rapid seedling growth and development. Cotton is generally no longer considered susceptible to thrips damage past the 5th true leaf stage.

Total thrips per plant and the presence of immatures must be obtained to make good management decisions. A visual inspection of both upper and lower surfaces of leaves and the plant terminal of at least 10 random plants in several locations within a field should be conducted.



Adult thrips, J. Reed, MSU

The total number of thrips per plant and percent immatures should be recorded. Folded or damaged leaves must be unfurled and the terminal dissected to count hidden thrips. Alternatively, plants

can be “beaten” onto an 8 inch white paper plate or into a cup and dislodged thrips counted. This method is quick and easy but may not account for thrips embedded in folded leaves and the terminal.

Treatment thresholds for thrips in cotton are based on the number of thrips per plant, presence of immature thrips, and crop stage. A suggested guideline for thrips management is one thrips per true leaf through the 5th true leaf stage. If a residual insecticide, either soil applied, seed treatment, or foliar, application has been previously made the thrips population should contain immatures to justify a sequential foliar insecticide application. The presence of immature thrips is an indication that the residual activity of a previously applied insecticide is beginning to break down. Under poor growing conditions the action threshold should be reduced to 1/2 thrips/true leaf to avoid excessive damage.

Any production practice which stimulates rapid seedling growth and development will reduce cottons susceptibility to thrips damage. In cases where thrips are a perennial pest preventative treatments, ie seed treatment insecticides are recommended. Utilizing soil applied and

seed treatment insecticides will reduce the likelihood that foliar insecticide applications will be needed. The reduction of early season foliar insecticides will conserve natural enemies as they begin to build. A purely remedial approach to thrips management will require intense management. Frequent scouting and possible multiple foliar insecticide applications may be necessary to prevent undue thrips damage. Once cotton has reached the 5th true leaf stage and is growing rapidly there is little chance that thrips feeding will impact yield.

HPWD winter water level measurements indicate average decline of -1.87 feet in 2012

Winter water level measurements indicate an average decline of -1.87 feet in the groundwater levels of the Ogallala Aquifer within the 16-county High Plains Underground Water Conservation District No. 1 (HPWD) service area in 2012.

This decline is 0.69 of a foot less than the -2.56 feet decline recorded during extreme drought conditions in 2011.

The 10-year average change (2003-2013) was -0.89 of a foot while the five-year average change (2008-2013) was -1.40 feet.

Each county in the water district had declining groundwater levels in 2012. Locally, groundwater levels changed -1.95 feet in Bailey County and -3.13 feet in Parmer County.

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