

# Northwest Plains Pest Management News

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The Northwest Plains has for the most part been saturated by recent rains. Many crops will not need further irrigation to fully mature and the soil moisture profile is in excellent shape for fall planted wheat. Conservation of soil moisture will pay higher dividends this year due to the high cost of irrigation.

**Cotton bollworms** have been observed in varying densities across the Northwest Plains. Populations have ranged from near 0 to 19,000 per acre. Some fields which had in excess of 20,000 eggs last week did not develop treatable numbers of bollworms.



*Cotton bollworm in bloom.*

Natural enemies as well as environmental factors have suppressed bollworm development. Adjacent fields, in some cases, have had much different infestation levels. This variation amplifies the need for accurate scouting in each field. Making a pest management decision for a

<b>Cotton Heat Unit Accumulation<sup>1</sup></b>			
Location	Current	2004	Long Term <sup>2</sup>
Farwell	1492	1359	
Friona	1502	1403	
Muleshoe	1464		1512
Muleshoe WR	1588	1489	

<sup>1</sup> DD 60 based on May 1

<sup>2</sup> Based on Muleshoe long term weather data 1971-2000

group of fields in an area based on a single field could be costly. Whether an economic pest infestation goes undetected or an insecticide application is made unnecessarily, profit potential is lost. Remember, the economic threshold for bollworms in cotton is 10,000 or more small worms per acre or 5,000 or more medium worms per acre or an extrapolated combination of the two.

A cotton boll must accumulate 350 heat units to be safe from plant bugs and 450 heat units to be safe from bollworms. Currently cotton which cutout on August 1 has accumulated 345 heat units to date and cotton which cutout August 10 has accumulated 200 heat units to date. A positive rate of return is not likely when protecting late bolls from insects.

Natural enemies and environmental conditions have continued to suppress **cotton aphids**. Most cotton fields have a few aphids in plant terminals and squares. Economic losses due to aphids is generally not a factor unless aphid numbers reach 50 per leaf. This threshold should not be used once cotton has began to open. Aphid infestations causing sticky cotton must be managed differently than infestations

<b>Daily Water Use</b>	
Crop	Inches per day
Corn	.22
Cotton	.22
Grain Sorghum	.20
Bermuda grass	.17
Fescue/ Bluegrass	.23

occurring prior to open bolls.

Evaluations of field level disease infestation and visual crop hybrid or variety performance in those fields should be made at this time. While there is nothing that can be done about most disease currently, knowing what diseases may be in the field and how a particular hybrid or variety responded to them will be very valuable when making planting decisions next spring. Crop diseases occur in all production areas and are usually most destructive when a particular crop is grown extensively in a given area, because disease organisms are then able to build up large populations.

Every producer should follow a good cultural control practices when possible, including rotation with non-related crops, proper handling of crop residue, planting of disease-resistant hybrids or varieties, and practices that promote the rapid and continuous development of the crop.

**Verticillium wilt** has been observed in area cotton in alarming frequencies. Leaf symptoms most frequently occur from the beginning of flowering to the end of the growing season.



*Verticillium wilt in cotton.*

When cool temperatures occur in July or August, Verticillium wilt can be extremely damaging to yield. Generally, Verticillium wilt develops faster as the maximum daily temperature drops below 95 F. Control of Verticillium wilt requires an integrated approach. Varietal resistance is the

best place to begin.

**Stalk rot** has been observed in area corn. Symptoms vary depending on the organism involved, but they all result in stalk decay and lodging which causes difficulty in harvesting. Yields are reduced by poor ear development and by loss of ears on lodged plants at harvest time.

Corn hybrids vary widely in their resistance to stalk rot, so it is advisable to plant those with a strong stalk characteristic in fields with a history of stalk rot.



*Stalk rot in corn.*

Personal observations and reports of **Stewart's Disease** have also been made in area corn but has not been confirmed through laboratory isolation. Stewart's Disease is vectored by the corn flea beetle and symptoms include wilt and leaf blight.

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