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Northwest Plains Pest Management News

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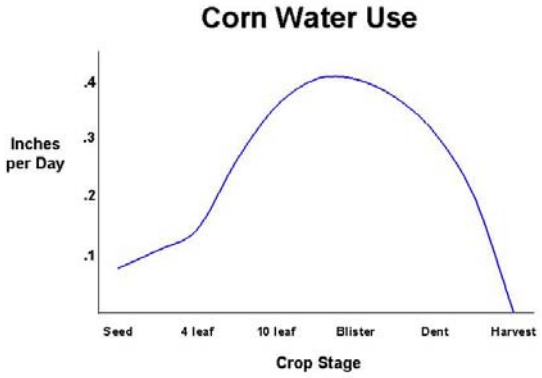
Hot dry weather has allowed wheat harvest to progress very well. Excellent dryland yields and fair to good irrigated yields are being reported.

Most area corn is 2 to 5 feet tall (6 to 10 leaves) and growing rapidly. This rapid growth puts a heavy demand on soil moisture. Corn will reach its peak water use in the tassel/silking stage. A full soil profile going into peak water use will provide a bit of cushion in the event of irrigation equipment failure and is absolutely critical if irrigation capacity is less than crop demand. Good irrigation management will keep corn in high gear and help suppress spider mites. Mites have been shown to develop faster on corn under moderate drought stress and slower on fully irrigated corn.



Daily Water Use	
Crop	Inches per day
Corn	.35-.39
Cotton	.16
Grain Sorghum	.14-.20
Bermuda grass	.25
Fescue/ Bluegrass	.33

Cotton Heat Unit Accumulation[1]			
Location	Current	2004	Long Term[2]
Farwell	540	562	
Friona	551	605	
Muleshoe	534		488
Muleshoe WR	588	646	

[1.] *DD 60 based on May 1*
[2.] *Based on Muleshoe long term weather data 1971-2000*

Most cotton has 5 to 10 true leaves and has began to square. Square set is 85% to 100%. All square loss is not necessarily due to insect damage, environmental conditions can also have an impact.

Cotton fleahoppers are being found in area fields. Numbers have ranged from 0 to 27 per 100 terminals which is more than has been observed in the past few years.

Adult fleahoppers are about 1/8 inch long and pale green. Nymphs resemble adults but lack wings and are light green.

Adult cotton fleahopper.

Cotton fleahopper nymph

They move very rapidly when disturbed. Adults move into cotton from weed hosts when cotton begins to square. Both adults and nymphs suck sap from the tender portion of the plant, including small squares. Pinhead size and smaller squares are most susceptible to damage.

The decision to apply insecticide should be based on the number of fleahoppers present, the squaring rate and the percent square set. During the first week of squaring, the economic threshold is 25 to 30 cotton fleahoppers per 100 terminals combined with less than 90 percent square set. In the second week of squaring, the economic threshold is 25 to 30 cotton fleahoppers per 100 terminals combined with less than 85 percent square set. Starting with the third week of squaring up to first bloom, the economic threshold is 25 to 30 cotton fleahoppers per 100 terminals combined with less than 75 percent square set.

Minute pirate bugs and spiders are abundant in area cotton. These and other beneficial arthropods should be considered when making pest management decisions. Natural enemies should be conserved by only applying an insecticide if pest numbers exceed economic threshold and using an insecticide which is "softer" on beneficial arthropods when available.

Spiders are important in regulating pest insects but are not normally numerous enough to control excessive numbers that occur during major outbreaks. Along with other mortality agents, spiders often keep pests below densities that cause unacceptable cotton losses.

The crab spider is a hunting spider, does not weave a web and usually is found in plant terminals. The four front legs are longer than the four rear legs. Adults reach a length of about 1/4 inch. They are yellow, green or white with reddish markings. Immature stages resemble adults but are smaller. Crab spiders are one of the first predators to enter the cotton field early season.

Crab spider feeding on a stinkbug

Crab spiders feed on cotton fleahoppers, Lygus bugs and a wide range of other insects, including bollworm-budworm eggs and worms.

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