

Northwest Plains Pest Management News

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Bailey and Parmer Counties

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April 22 has been designated Earth Day. Earth Day is a time to celebrate gains we have made and create new visions to accelerate environmental progress. A popular Amarillo talk radio show host said it best “Everyday is Earth Day for agriculture producers... they are the best stewards of the land”.

Corn planting is underway and preparations for cotton planting are being made. Wheat is progressing rapidly, most is either in boot or very near it and some has begun to head out. Russian wheat aphids and greenbugs have been observed in varying numbers across the area. Some fields have been treated but many never developed populations which justified an insecticide application.

Spider mites have also been observed in area wheat. Most infestations are in spots within fields typical of mite infestations. It is the mite species which differentiates this years infestation from the norm. Banks grass mites, the dominate species which occurs in area corn, are damaging some wheat fields. Symptoms include yellowing chlorotic leaves and in some cases leaning plants. Hot dry conditions favor the development of spider mites and increase wheat’s susceptibility to them. Thrips are very good natural enemies of spider mites and in many cases prevent an outbreak. Most fields with mite “flair ups” have been previously treated with



Average Soil Temperatures*		
Location	2 inch	6 inch
Farwell	55	60
Earth	58	62

*Current 10 day Average Soil Temperatures

an insecticide for greenbugs and Russian wheat aphids.

There are no established economic thresholds for banks grass mites in wheat, management decisions should be based on commodity value, treatment costs, and potential damage which is unknown. Therefore damage must be estimated based on visual damage. Selective treatment of only infested areas within fields should provide adequate control. Only a limited number of products are labeled for mites in wheat. There is also very little information available on their efficiency in wheat.



Banks grass mite damage in wheat.

Daily Water Use	
Crop	Inches per day
Wheat	.34
Corn	.07
Bermuda grass	.10
Fescue/ Bluegrass	.13

As cotton planting season nears several aspects of early season cotton management should be considered. Proper soil conditions and good **quality**

seed will reduce disease, provide a more uniform stand, tolerate deeper seeding depths, allow lower seeding rates, quicker emergence, and will reduce risks associated with replanting.

The Standard Warm Germination Test measures the percentage normal seedlings that have a combined hypocotyls and root length of 1.5 inches after being placed in an incubator for 4 days at 68 degrees F for 16 hours a day and 86 degrees F for 8 hours a day. The hypocotyl is the portion of the stem below the cotyledons (seed leaves). In the Cool Germination Test, the seeds incubate at 64 degrees F and the percentage of normal seedlings with a combined hypocotyls and root length of 1.5 inches is calculated after 7 days.

The results of the two tests are added together to obtain Cool-Warm Vigor Index. Seeds with the highest vigor index value may be planted at the earliest possible planting date, when less than optimum conditions are likely to occur. A producer can then follow with seed from a lower vigor index value level as the planting season progresses and soils become warmer.

Cool-Warm Vigor Index Values

Category	Value
Excellent	160 or greater
Good	140-159
Fair	120-139
Poor	Less than 120

The results of the Cool-Warm Vigor Index are not printed on seed tags, but growers can obtain them from the seed company or dealer. Request this information on all seed before buying. It will help you determine the sequence in which to plant the seed lots.

Variation in seed quality is common. Seed with a cool germination of 50 percent or higher can germinate under a wide range of field conditions. Seed with a cool germination of 30 percent or lower is likely to produce seedlings that emerge slowly and non-uniformly.

Thrips are a recurring problem to seedling cotton in the Texas High Plains. Thrips infested 3.1 million acres in the Texas High Plains in 2005. Approximately 700,000 acres were treated with a preventative and 150,000 acres with a foliar remedial treatment for thrips control. Thrips were responsible for a 1% reduction in the 2005 Texas High Plains cotton crop. Thrips accounted for 20% of total insect losses and were the second most damaging pest behind bollworms.

Until recently, available alternative preventative treatments have not been competitive with the standard systemic insecticide, Temik in effectiveness. Temik is the standard against which all thrips management options are currently measured. In local trials conducted in 2005 Temik held thrips pressure below economic threshold through the 5 leaf stage. Cruiser kept thrips pressure to acceptable levels up to 26 days after planting at which time a sequential foliar insecticide application was warranted. While Gaucho Grande was much better than the untreated check 18 days after planting it did not provide enough protection to prevent thrips from exceeding economic threshold. Effective thrips management enhanced leaf area, reduced visual damage, increased plant height and early plant vigor, increased lint yield and may have enhanced maturity. In this high yielding trial, 3.5 bales/acre, Temik and Cruiser out yielded the untreated check by a half bale/acre.




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