

**Integrated Pest
Management
Calhoun, Victoria
And
Refugio Counties**

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Supporters of IPM Program

Texas Soybean Board
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Cotton, Inc.,
Texas Grain Sorghum
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Corn

Corn fields are maturing rapidly due to temperatures that are higher than normal. These fields have been putting on a leaf every 2-3 days and many fields have tasseling plants that are only 4-5 feet tall.

Applications of aflatoxin reducing products that require fungi to sporulate such as Aflaguard and AF 36 may not work well if applications are made during dry conditions. These products need moisture for the fungi to produce spores that will crowd out the toxin producing strains of *Aspergillus flavus*.

Grain Sorghum

Some early grain sorghum fields are beginning to head out. Fields should be monitored for sorghum midge when plants begin to bloom. Automatic applications for midge, stink bugs or head worms will result in poor application timing which may reduce levels of control and increase the cost of production without increasing yields, resulting in lost profit.



The adult sorghum midge is a small, fragile-looking, orange-red fly with a yellow head, brown antennae and legs and gray, membranous wings. Larvae are colorless at first, but when fully grown, are dark orange. Larvae complete development in 9 to 11 days and pupate between the spikelet glumes.

To determine if adult sorghum midges are in a sorghum field, check at mid-morning when the temperature warms to approximately 85 degrees F. Sorghum midge adults are most abundant then on flowering sorghum grain heads. Because adult sorghum midges live less than 1 day, each day a new brood of adults emerges. Sampling must be done almost daily during the time sorghum grain heads are flowering. Sorghum midge adults can be seen crawling on or flying about flowering sorghum grain heads.

The simplest and most efficient way to detect and count sorghum midges is to inspect carefully and at close range all sides of randomly selected flowering grain heads. Handle grain heads carefully during inspection to avoid disturbing adult sorghum midges. Inspect plants along field borders first, particularly those downwind of earlier flowering sorghum or johnsongrass.

Table 14. Estimated economic injury levels for sorghum midge for a range of factors. (This table is only a guide. Use the equation in the text to estimate the economic injury level in your field.)

Control cost, \$/acre	Crop value, \$100 lbs	Economic injury level—mean number of midges/flowering head		
		Flowering heads = 18,000/acre	Flowering heads = 45,000/acre	Flowering heads = 67,500/acre
5	6	1.6	0.6	0.4
5	7	1.3	0.5	0.34
5	8	1.2	0.5	0.3
6	6	1.9	0.8	0.5
6	7	1.6	0.7	0.4
6	8	1.4	0.6	0.35
7	6	2.2	0.85	0.6
7	7	1.9	0.75	0.5
7	8	1.6	0.65	0.45

Cotton

Cotton Fields range from seeds in dry soil to 8-10 leaf. Fields with squares on cotton plants should be inspected for cotton fleahoppers. I have found field populations of cotton fleahoppers from 0-100 fleahoppers per 100 plants. Low numbers of aphids can also be found in some fields.

I do not believe that the first 3-4 squares on the plant should be protected from fleahoppers because they do not represent a large percentage of final yield at harvest and the plant has ample time to compensate for the potential loss of these squares. Thus, I do not advocate insecticide applications for fleahoppers in the first week of squaring.

As with sorghum, automatic applications for fleahoppers have not shown to provide economic control and usually result in over application of insecticides.

Ignite applications and Widestrike RF Cotton

Below are results of a research project conducted near College Station by Dr. Gaylon Morgan that was presented at the Beltwide Cotton Conference. The application timings were match-head square and early bloom. The results show that applications of Ignite Herbicide at early bloom to PhytoGen 375 WRF resulted in lint yield reduction. I intend on conducting similar research this year to evaluate this effect in the Coastal Bend.

Treatment	Lint Yield lbs/ac
Untreated Check	1161 a
RU @ 32 oz fb* RU @ 32 oz	1127 ab
Ignite @ 22 oz fb RU @ 32 oz	1102 abc
Ignite @ 29 oz fb RU @ 32 oz	1056 abc
Ignite @ 22 oz fb Ignite @ 22 oz	1011 bc
Ignite @ 22 oz fb Ignite @ 29 oz	987 c

Lint yields with the same letter are not statistically different.

* fb = followed by.

The conclusions to Dr. Morgan's trial are as follows:

From this study, it is evident that applications of Ignite herbicide over-the-top of Widestrike cotton can lead to adverse effects on flowering cotton plants. Visual phytotoxicity was visible following the second application of Ignite and more damage was observed with the higher rate. Also, the Ignite treatments had moderate numbers of flared squares compared to no flared squares in the RU treated plots. This data also demonstrates that there can be negative yield effects to applying Ignite over-the-top of Widestrike cotton at the early flowering stage. The effects from the Ignite appear to cause greater yield loss with the later the application(s) timings and at the 29 oz/a rate. Therefore, if producers are interested in using Ignite herbicide in their PhytoGen Widestrike cotton varieties, it would be advised to use it earlier in the growing season, probably prior to bloom, and use the lower labeled rates.

Neither Bayer CropScience nor Dow AgroSciences recommend applications of Ignite herbicide over-the-top of Widestrike RF cotton.

