Calhoun County Extension Integrated Pest Management
Calhoun, Victoria, Refugio Counties

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The cost associated with mail outs have increased and we are requesting you to indicate if you would like to continue receiving them. Please call our office at (361) 552-3324 or email our office at SBiles@ag.tamu.edu. Thank you for your support in our program.

PRE-PLANT DECISIONS FOR PEST MANAGEMENT

Weed Control

The decisions you make before planting and when planting your crop will have lasting results on the weed and insect issues you will face in the field. Weed control is vital from 6 weeks prior to planting through the first 6 weeks of crop development and it is more than just water and nutrient use.

Fields with grass and broadleaf weeds in the days prior to planting tend to have more problems with cutworms. Research presented at the 2010 Beltwide Cotton Conference showed that keeping a field free from weeds for 6 weeks prior to planting will drastically reduce cutworm populations. This was especially evident with weeds like Henbit.

Other weeds in and around fields can be sources of pest insects. Johnson grass growing in or around fields will contribute significantly to sorghum midge populations since they are the plants the insect uses to maintain and build its populations prior to sorghum fields blooming.

Planting date

Another major decision is when to plant your crop. Planting date can influence how much insect pest problems you will have.

Early, uniform planting of sorghum, within a community or area is recommended to avoid losses caused by sorghum midge. While not always possible, this is the most practical means of avoiding midge damage.

Adjacent sorghum fields should be planted as within as brief a time as possible. Otherwise, the early planted field will produce midge populations that move to later planted fields in damaging numbers, resulting in yield losses and the need for insecticide applications.

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Sorghum Midge

Three-cornered Alfalfa Hoppers

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TEXAS SOYBEAN BOARD

In addition to sorghum, later planted soybeans are more likely to have problems with stink bugs than earlier planted beans. In Victoria and Calhoun Counties, soybeans planted in March will need 1-2 fewer insecticide applications than April planted beans. And soybeans planted in May are even more at risk. James Grichar's trials have also shown that March planted soybeans will yield better than April and May planted beans over the past 4 years.

In contrast to this, cotton will have more damage from thrips and seedling disease when planted into cool soils. Wait to plant cotton until the 2-inch soil temperature is above 60 degrees for 5 days and the forecast is predicting warm weather.

Seeding Rate

There have been significant discussions over the past few years regarding seeding rate of cotton, corn and soybeans. Plant too high and a field will have reduced yields due to competition. Too low and the field may not reach its potential and may also have weed problems due to excessive light penetration.

I suggest planting rates for corn between 25,000 and 30,000 seed per acre; and for cotton, plant to ensure 2-4 plants per foot.

Soybeans are a little different due to the 3-cornered alfalfa hopper. Plant populations between 6 and 10 plants per foot will not differ significantly in yield. However, we manage the 3-cornered alfalfa hopper by ensuring a final plant stand of 6 plants per foot. Plant 10 seed per foot.

The 3-cornered alfalfa hopper can be found in soybean fields from the seedling stage through maturity. During the seedling stage its feeding causes girdled main stems; in later growth stages petioles are girdled. Plants damaged in early growth stages may not be noticed until they are much older and heavier. Because of the damaged stems, plants may lodge when stressed by wind, rain or cultivation equipment. The restricted flow of nutrients in girdled plants can reduce the number of pods produced. However, this type of damage rarely reduces yield because healthy plants adjacent to damaged plants compensate by producing higher yields. This is a phenomenon known as "plant stand compensation." **Main stem girdling is difficult to prevent with insecticide applications. A better management strategy for this type of damage is to manipulate seeding rates in order to obtain at least six undamaged plants per foot of row.**