

# MiteFax: San Joaquin Valley Cotton

Owen Taylor, Editor (owen@agfax.com, 888-327-6329)

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Here is this week's *MiteFax*, sponsored by **Syngenta Crop Protection**, maker of **Zephyr**® miticide/insecticide and **Centric**® insecticide.

## OVERVIEW

More lygus treatments were made last week, but these continue to be for "local" populations flitting into cotton from weeds, crops and desert land. No big flights or migrations are being reported.

Aphids were being sprayed here and there. Aphids are present in some areas, and minor treatments have been made. Miticides are going out on cotton not treated before first irrigation.

Cool weather gave everyone a break but probably didn't effect the crop to any degree. The early planted fields, at least, continue to run ahead of normal.

We include an advisory from Bob Hutmacher, Extension Cotton Specialist.

These reports were made Thursday and Friday.

## CROP REPORTS

**Nick Groenenberg, Indep. PCA, Hanford:** "Cotton looks great, and these cooler temperatures sure have been good for people. We've got plants at 13-14 nodes. A few fields have blooms. Lygus numbers have been very light. First irrigation is just finishing up, and we're putting on some layby herbicides and will be starting Zephyr applications later this week. A few aphids are around. I've had to treat 2 fields, and we're starting to see real light numbers in other fields."

**Bob Hutmacher, Extension Cotton Specialist:** "For the most part everything looks pretty good. I was in the south valley around Mettler in the last 2 days, and there were parts of fields with 30-40% retention, and lygus were present. There are occasional reports about numbers creeping up a little, too. But most fields I've worked in this week are running 70% or better on retention. Growth is really pretty good in most of the

places I've been."

**Jim Hall, PCA, Hall Agromomics, Fresno:** "It's been kind of cool this week. We could lose a little of the earliness, but we're still ahead of the game. I'm thinking we'll see blooms on our earliest fields around June 20. Retention is still real high. I found a field under 70% and will go ahead and use some Centric to work down the lygus numbers before second irrigation starts.

"A little aphid are showing up here and there. We treated one field before first irrigation. We can find aphids in other spots, but predators seem to be keeping up with them. I anticipate that some guys will bump up nitrogen and get a little more aggressive with cotton now that we've made a good start. That might influence aphid pressure. A few loopers are out there, but no treatments have been necessary."

**Tony Touma, PCA, Bio Ag Consulting, Bakersfield:** "We have an  
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area north of Buttonwillow where we picked up a 12 and a 27 count. It's a hotspot with a lot of weeds and abandoned land around it. We've sprayed maybe 500 acres. Otherwise, lygus aren't a big deal.

"Cotton is loading up, and we can take some losses. Several growers decided that, once we finish watering, we'll take another hard look and decide about treating. Mites are down. We cleaned up all our fields. I found some aphids on a Buttonwillow ranch where we find them every year. Parasites are out there, and that's a plus.

"Our cotton is technically a good 2-3 weeks ahead of schedule."

**Jerry Anderson, PCA, Anderson Consulting, Dos Palos:** "We're lining up Zephyr where we didn't treat before first irrigation. We probably treated 50-60% ahead of irrigation with Zephyr and a little Kelthane. This week we're also trying to get Pix on some Riatta and Sierra that's following melons and alfalfa. That cotton is tearing out of the ground. I'm picking up a couple of worms in hay but none in cotton. There are no aphids or whitefly. I found one 5 count while sweeping for lygus, but they were gone a couple of days later.

"Cotton looks great. I took a digital photograph June 4 of a grower's first bloom. It had the date imprinted on it, which was neat to have as documentation. That's almost 2 weeks earlier than the grower can remember having a bloom in the last 40 years.

"It was a white bloom, so it had been there a day or so already. The field wasn't stressed, just planted early. Cotton looks good. I think our biggest potential problem is the chance for early cutout."

**Justin Cordoza, PCA, Agri-**

**Tech, Merced:** "This cooler weather has really given us a break. Cotton is still quiet. We've done some mite cleanup applications but haven't had any fires to put out. We're just catching some fields that we didn't spray before first irrigation. Lygus counts have been low, and retention remains strong.

"We're watching a few aphid spots on one ranch. I don't know why they're turning up there. They aren't widespread, just a few plants here and there with noticeable amounts of aphids."

**Steve Lenander, Technicare, Bakersfield:** "We're dealing with lygus south of Bakersfield in the Arvin-Lamont area and also in the lake bottoms. Numbers aren't huge. These are mostly resident lygus moving in from other crops or the desert. There are some in the Shafter-Wasco area, as well. A good number of acres are being treated, and some people are toying with the idea of using Temik at layby.

"The cotton looks so darn good. Physiologically, it's like cotton we've never seen before. Here we are on June 10 with plants pushing 19 nodes. It's a strong 2 weeks ahead. Above and beyond that, retentions are mind boggling. On the bottom 5 the percentage of retention is in the 90s. We started seeing blooms in the last week of May.

"With the early start and strong retention, we've also got potential to make a lot of mistakes this year with water, nutrition and Pix. This crop could cut out on you in late July. And trying to restart it could leave you open for all kinds of problems with aphids, whitefly and expensive defoliation programs. Guys who pay attention to physiology and nutrition are going to be leaps and bounds ahead this year."

**Pete Goodell, Extension IPM**

**Entomologist, Kearney Ag Center, Parlier:** "Lygus continue to look localized. They are being treated, but it's just in a few fields here and there. If you have them, they came from a nearby source. PCAs say that every week the crop goes by without lygus pressure means 1-2 nodes they don't have to worry about. I still strongly encourage people to strip-cut alfalfa as much as possible so we can improve what already is a good situation. If we can leave some habitat for these insects, that's the thing to do.

"We're still waiting to see what whitefly and aphids do. It's too early to call that one yet."

## DD60 TABLE

Accumulations from March 15 and April 1 planting dates.

**As of: 6/10**

**2004 accumulation to date**

	<b>3/15</b>	<b>4/1</b>
Shafter	803	679
Kettleman	936	799
Five Points	712	613
Los Banos	642	550

**Long term (LT) average**

	<b>3/15</b>	<b>4/1</b>
Shafter	657	600
Kettleman	711	652
Five Points	633	581
Los Banos	511	463

**Difference\* 2004 vs. LT**

	<b>3/15</b>	<b>4/1</b>
Shafter	146	79
Kettleman	225	148
Five Points	79	32
Los Banos	132	87

\*Positive Value indicates greater DD in 2004 then long term.

# Crop Management Considerations

From Bob Hutmacher  
June 11, 2004

## Early Fruit Retention

Most fields we have been in have very good early fruit retention (many running 70-100%). In discussions with a number of people, it seems out of place to hear 70-80% bottom 5 retention described as “losses to keep watching to see if they get worse”.

While it is always good to check retention to make sure problems don't develop, most research suggests that some light square and early fruit losses are normal and expected. These can be related to weather, competition between vegetative and reproductive growth, as well as insect pests. You probably won't achieve 100% retention of early first position fruit, even without intervening insect pests.

Long-term early fruit retention data measured in many high yielding fields still shows average early fruit retention routinely in the 65 to 85 percent range.

## Approaching 1st Bloom

**High NAW(Y)F:** Here are some considerations for handling plants that are coming into first bloom with high nodes above first bloom.

For moderately determinate uplands, that's greater than 9 NAWF (nodes above white flower).

For moderately determinate Pima varieties, that's greater than 10 NAYF (nodes above yellow flower).

Keep in mind:

● Nodes above white/yellow flower is a relative indicator of the vigor with which the cotton plants

enter the primary flowering and reproductive stage of growth. It is a relative indicator of the vigor which a cotton plant has to develop new fruiting nodes and extend fruiting branches.

● High NAW(Y)F can indicate fruit retention problems, but it can also indicate a high vigor plant just due to good growing conditions and high input availability. Verify if there is any retention problem, then identify if there is a pest still present in treatable quantities (don't apply pesticides if the problem developed but the pest is no longer there — just deal with the growth problem that now exists)

● If you have high NAW(Y)F combined with retention problems, consider use of delayed irrigation and moderate water stress, plus growth regulator application(s) to get vegetative growth under control. You may need to consider multiple growth regulator applications if high vigor continues

● One caution in working with NAW(Y)F data: there is some danger of misinterpreting the numbers when cotton plants have very poor bottom 5 retention. This makes sense. If you've lost a lot of lower squares, there are no flower buds to “bloom,” and you won't see flowers at the node # you might normally expect.

**Low NAW(Y)F:** In the low range, we're talking about plants coming into first bloom with NAW(Y)F less than about 7.

Keep in mind:

● This low vigor situation may not be as uncommon as many might think this year, particularly

if very hot weather settles in and early fruit retention is good. If you have fields with this situation, it warrants your attention in order to avoid early cutout and a fruiting period that could be too compressed to allow good yields

● Unless earliness is your primary goal, or you are worried about delays in harvest in double-cropped fields, NAW(Y)F down in the 6-7 range in the first week or so of bloom can be considered a probable “negative”

● “Pushing” plants with more water and fertilizer can be tricky, so consider your water supplies and water costs, irrigation frequencies you can achieve and amounts that avoid moderate water stress. But avoid excessive irrigations. UCCE Research by Bill Weir and Bruce Roberts has been relatively consistent in showing benefits to foliar fertilization (with N and K sources) if applied during the window 1 to 4 weeks after first bloom (2 weeks would likely be better if the NAWF is low)

● Be careful with urea applications during very hot weather to avoid plant injury

● Careful use of moderate amounts of water-run fertilizers can be considered where retention is good (indicating that there will be a significant need for nitrogen for developing seed), but again, avoid applications much after peak bloom, since most studies show that late fertilizer applications can have limited, or even negative impacts