
Please route to the parties listed above. Thanks very much!

MiteFax: San Joaquin Valley Cotton

June 9, 2001

Moderating temperatures are taking some of the stress off the cotton -- and also off the people working it. Overall pest pressure remains light, though mite pressure is beginning to build in some areas. We also heard about stinkbug numbers building in parts of the south valley.

We continue to expand our MiteFax archive on the internet. We now have most back issues for 1998 through 2000 available for anyone who wants to compare seasonal trends. We expect to add 1997's reports in the next week. The files are in Adobe Acrobat portable document file (PDF) format. We include a link on the page to Adobe's web site if you need to download the free PDF reader. Most web browsers, though, now include this feature.

To retrieve back issues, go to:
www.agfax.com/mitifax/pdf

We also include a third page this week on mite morphology. This week's reports were made late

Thursday and Friday.

Crop Reports:

Vern Crawford, PCA, Wilbur-Ellis, Shafter: "Mites still are on the light side, but we know they will be there. They're omnipresent but not blowing up. We are finding stinkbugs in numbers that are a concern. Two other PCAs said they were turning up unusually high counts, too. In one field down south I got an 8-count on 50 sweeps in one small block. The concern is that we could lose too many early positions where stink bus are heavy. I'm also starting to find a few cotton aphids, and worms appear to be entering a new cycle. I've found a bunch of looper eggs and sugarbeet armyworm egg masses. Mites could very well flare with the conditions we have. We're going ahead with miticide treatments and adding whatever is necessary to manage other pests that warrant treatment now. I don't want to get into a situation where we're doing back-to-back sprays and blowing aphids. I'm

hoping we can give beneficials a chance to rebound."

Bill Weir, Extension Farm Advisor, Merced County: "I was out all morning (Thursday) looking for mites in test plots but couldn't find any. But in talking to growers, they say that mites are showing up. One grower sprayed 500 out of 6,000 acres."

David Simoni, PCA, Western Farm Service, Hanford: "Miticides are beginning to go out, and the spraying activity is probably picking up some. A lot of people are treating after first irrigation, though a few sprayed before the first round of water. There still are some problems with spotty stands, but cotton is responding pretty well to water and the weather. Where people got good stands in the beginning, the cotton is doing alright. Lygus are starting to move in from surrounding crops. I found my first bloom for the season Wednesday in the Hanford area in some March-planted cotton."

Continued on next page

When the Weather Heats Up, Mite Pressure Can, Too

Keep a close eye on pest populations when the mercury rises. Temperatures 80°F or above can trigger rapid mite reproduction. A lay-by treatment with Zephyr® miticide/insecticide can help prevent a "mite explosion" and help maximize your cotton's yield potential. (Sponsored Message)

Zephyr 
miticide/insecticide

©2001 Syngenta Crop Protection, Inc., Greensboro, N.C. 27419-8300. Curacron®, Warrior®, Starfire® and Zephyr® are Restricted Use pesticides. Important: Always read and follow label instructions before buying or using these products. Curacron®, Warrior®, Starfire® and Zephyr® are trademarks of a Syngenta Group Company.

<http://www.syngenta-us.com>

syngenta

Jim Hall, PCA, Hall Agronomics, Fresno: "First irrigation is pretty much underway. Cotton with Temik has held up pretty well to everything except the worms. We've primarily used Bts to stave off the pressure. It helped, but we're seeing eggs and recent hatches in fields that haven't been treated. Mite seem to be pretty light overall. We're treating some next to roadways prior to first irrigation. Retention is real high, and our early fields have 4-5 positions so far. Predator levels look real good. We're picking up some lygus in alfalfa and intend to strip cut it to try to hold lygus in those fields."

Mike Molatore, PCA, Western Farm Service, Mettler: "Mites are still pretty light. We're starting to pick up lygus in areas where hay is being cut or near safflower. We've got a pretty wide span of planting dates. We've got guys getting ready for their first irrigation and others getting ready now for their second irrigation. One grower had a field with some pretty good counts of stinkbugs. In this case, we watched them over a period of several days. When hay was cut that was when all the lygus counts went up and the stinkbug counts did, too. After a while, lygus counts dropped and stinkbug just disappeared. There still seem to be a lot of worms and eggs, but cotton is getting enough height that it's a livable situation, with enough foliage being added to offset looper feeding."

Rick Sandberg, PCA, Agri-Consultants, Cantua Creek: "I don't know where mites are this season. We're holding off treatments until we've got something to spray. Early on, we found a few spots, but 7-10 days ago we were finding leaves with webbing but no mites.

I'm not sure if thrips took care of them or something else happened. We do have them in our grapes. We've got a little lygus but not at numbers that concern us. We're about 10 days away from first bloom. The crop looks good. Our best fields have 95-100% retention."

Sara Savary, PCA Crop Care Associates, Fresno: "Mites are up this week. It seemed like somebody opened a floodgate and they poured out. Numbers are up in all my crops. Everybody has first irrigation going now, and we're spraying just ahead of water or just behind it. We're still having a low but constant level of loopers. We've yet to treat. Leaves are looking kind of holey but loopers haven't taken terminals and they've stayed away from squares. Up until today (Friday) I had found one lygus, maybe. But as I started checking closer to the San Joaquin River the higher the lygus counts got. They were averaging 2-3 counts but there were spots with up to 10 and losses in the 15-20% range. We are scheduling treatments. We've

got some Pix going on after first irrigation and expect to see blooms in the next week or so."

Warren Hutchings, PCA and sales manager, Calarco, Corcoran: "We've been waiting for these mites to explode, but they're still pretty light, and we're not even beginning to treat. In fact, all insect activity is pretty slow. Some lygus are moving from alfalfa hay that's being cut, but even these are lighter than I normally expect."

John Moore, Ind. PCA, Bakersfield: "I'm not seeing any mites at all, and people have been watering without putting a miticide out. Lygus are averaging about 2 by cut alfalfa, although I'm picking up some counts as high as 20. I'm seeing some stinkbugs here and there, but nothing across the board. There are a lot of looper eggs out there but also a tremendous amount of bigeyed bugs, and a lot of the eggs aren't making it to worms. But I am beginning to catch some eighth-inch cabbage loopers in my sweep net and finding them on leaves."

Degree days >60 for 6/7/01 since 4/15/01

Location	3/15-4/14*	2001**	30 year**	Days +/-**
Arvin	116	577	451	11
Shafter	120	558	451	9
Visalia	119	552	387	17
Stratford	118	548	387	15
Kettleman City	137	651	415	23
Five Points	117	557	415	15
Tranquility	120	578	387	20
Firebaugh	111	542	387	16
Madera	90	455	378	8
Los Banos	105	474	359	13
Colusa	120	510	350	18

Degree Day calculated with single sine, horizontal 60 F baseline

*Additional DDs accumulated

between 3/15/01 planting date and 4/14/01

**Based on 4/15 planting date

June 9, 2001

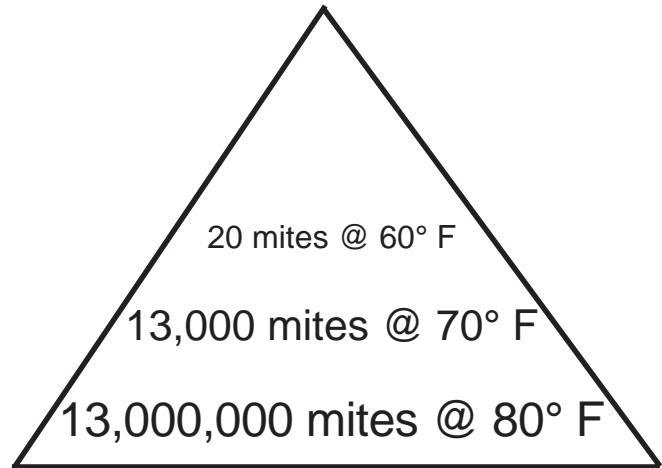
Short Season Mite Management

Studies conducted with the SJV spider mite complex (twospotted, strawberry, and Pacific mite) strongly support the need to control spider mite infestations early in the production season to maximize lint yields. These studies show that early season infestations, even at very low population levels, affect plant productivity resulting in smaller bolls and ultimately reduced yields.

Supporting studies show that temperature is a key factor in determining population expansion in the field. As shown in the table (below), the number of days required to go from egg to adult is shortened as temperatures increase. As temperatures approach 80° F, the life cycle can be reduced down to only five days. USDA results show that a single female can give rise in her 30-day life span through successive generations to an enormous progeny. As the triangle shows, this represents a 1,000-fold increase with each 10° F increase in temperature.

This prolific fecundity of the spider mite complex or its ability to reproduce itself at tremendous rates as temperatures increase, are the key factors associated with spider mite blow-outs throughout the SJV.

The staggered planting with this year's crop will



definitely impact production. As temperatures increase, pest pressures from mites, lygus and aphids is expected to be very intense. This year it will be critically important to set crop yield early and to retain as much of the early fruit set as possible. The long residual control and high level of efficacy with Zephyr will be essential to providing the uninterrupted protection from mites during this compressed 2001 growing season.

Spider Mites: SJV

