

# MiteFax: San Joaquin Valley Cotton

## Overview:

\* Less wind and warmer temperatures would help greatly. Warmer conditions in the forecast for last week didn't develop as hoped, and the crop is failing to progress much. Our contacts this week reported a few more instances of dampening off.

\* Mites are becoming more evident, and treatments were reported in several locations.

\* We begin our degree-day accumulation table this week. Our table this year includes two new locations: Madera and Colusa. We will compare accumulation to date each week with the 30-year average during the same period. In addition, the table will show differences (plus or minus) between 1999 accumulations and the historic average.

Two average planting dates also are provided: April 15 for the San Joaquin Valley, and April 24 for the Sacramento Valley.

\* This week's MiteFax also includes guidelines about early season aphids. Pete Goodell, extension IPM entomologist, prepared the re-

port after we received e-mail inquiries on the subject last week.

## Mite Report:

**Bruce Roberts, Extension Farm Advisor, Kings County:** "Mites are showing up. I've seen them on the cotyledon up to first true leaf, including some healthy, productive colonies with lots of eggs."

**Chuck Moran, PCA, Wilbur-Ellis Co., Shafter:** "Where Temik wasn't used at planting, we've got upwards of a 95% infestation in a couple of fields and a majority of fields without Temik in the 40-60% level. We have Temik fields that are at a zero level now. But in some cases where we used Temik, mites are showing up as high as 35%. Thrips are out there, but populations aren't high enough to keep mite pressure any lower. We're mainly seeing mites blowing in from alfalfa."

**Jerry Anderson, PCA, Anderson Consulting, Dos Palos:** "We're starting to spray a limited number of fields for mites with four ounces of Zephyr. The areas are mostly downwind from sugar beets and

older stands of alfalfa. We might have to treat other fields next week. Mites are accelerating somewhat but the cotton isn't because of the cool weather."

**Jim Hall, Independent PCA, Fresno:** "We're seeing strawberry mites on the cotyledon level and on higher leaves to an extent. Single mites are evident, and on the upland varieties we're finding some colonies. We're watching them closely. Everything that came out of the ground early in the month had aphids on the first true leaf. We haven't sprayed. Beneficials took care of it. Thrip pressure hasn't been so heavy that it crinkled leaves. Ladybird beetles, lacewings and predatory wasps have been active. This year, we didn't apply insecticides at planting due to budgetary decisions. It hasn't hurt us to this point. The way things look, we probably will treat some fields for mites before first irrigation."

**David Simoni, Independent PCA, Visalia:** "Mites are showing up here and there in a pretty typi-

**Continued on next page**

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Thanks to its exclusive translaminar activity, abamectin, the active ingredient of Zephyr miticide/insecticide, penetrates leaf surfaces and builds a reservoir of active ingredient inside leaf tissue to provide long residual protection against spider mites. In fact, the early season rate of just 4 fl. oz. per acre provides up to four weeks of unsurpassed mite control.--Sponsored Message

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cal pattern for this time of the year. Thrips probably will come in and take care of it, and Temik will help where it's been applied. Right now, our main concern is simply the wind and this lack of consistently warm weather. Cotton is just sitting there."

**Mike Molatore, PCA, Western Farm Service, Mettler:** "We've started spraying a little cotton for mites. Pressure has started to build a little early. My biggest concern is seeing a lot of eggs this year. Cool temperatures have held back hatching, but cotton is small enough that it could web over pretty quickly when temperatures rise and the eggs start hatching. We're finding some predacious thrip and a few ladybugs, but most of the cotton is on its own. Where we've had our biggest problem is in fields following corn and also where weeds have been worked up in adjoining asparagus. In one field, cotyledons and two true leaves were red with mites blowing in from an asparagus field."

**Ron Vargas, Extension Farm Advisor, Madera County:** "I haven't run across any insect problems, and growers aren't reporting anything. The main problem is a lack of warm weather. I've got 30 varieties in our trials in two locations, and I don't think I've ever seen a prettier, more uniform stand, but it's all sitting there in the cotyledon stage. Wind is drying out the surface and seedlings."

**Galen Hiatt, Independent PCA, Fresno:** "We haven't had any insect or mite pressure in cotton. Our growers went 100% Temik. Our biggest problem right now is the wind. Today (Friday) is the calmest day I can remember in at least two weeks. The wind has put us behind on Staple treatments."

## Early Aphids:

By Peter B. Goodell  
IPM Entomologist

Reports of early cotton aphid have prompted questions about when or if treatments are necessary. While it is a key pest, it's rare when yield loss can be associated with aphids that occur during early plant development.

Prior to first square, insecticide treatments for aphid are usually not required. Damage during this vegetative period will cause the leaf to cup. However, plant development will stay ahead of aphid damage in most years, and treatment is not warranted.

Research shows that cotton will fully compensate for damage caused by early infestations with no substantial loss of maturity. Further, predation and parasitism will control most infestations, even under extreme population densities.

Decisions to treat early season aphid must be carefully considered. One key to maintaining an IPM program in cotton is the minimal use of disruptive insecticides early in the season.

This allows the preservation of

important natural enemies to be available during June and July to prevent Lygus and spider mites from becoming serious threats to early squaring. In addition, resistance management principles require the avoidance of unnecessary applications in order to reduce selection pressure on later targets.

Should early season aphids ever be treated? There are no definitive thresholds for triggering treatments for early season aphid. But these guidelines are useful for determining when an insecticide may be needed:

\* Plant development is delayed due to extended cool periods and plants cannot out-pace damage;

\*Aphid populations are present for more than 10-14 days, damage is evident and natural enemies (ladybird beetles, Lysiphlebus wasps) are not maintaining control.

However, in most years early season aphids do not threaten yield, quality or maturity and rarely warrant treatment. Avoiding unnecessary broad-spectrum insecticide early in the season conserves natural enemies and represents a good insecticide resistance management practice.

### Degree days >60 for 5/13/99

since 4/15/99 for San Joaquin Valley  
since 4/24/99 for Sacramento Valley

Location	1998	30 yr.*	Days **
Arvin	192	220	-2
Shafter	203	203	0
Visalia	185	187	0
Stratford	190	203	-1
Kettleman City	222	203	2
Five Points	200	190	1
Tranquility	201	190	1
Firebaugh	175	190	-2
Madera	162	184	-2
Los Banos	172	180	-1
Colusa	117	132	-2

Degree Day  
calculated with  
single sine,  
horizontal 60 F  
baseline.  
\*30-year historic  
average  
\*\* - is behind;  
+ is ahead