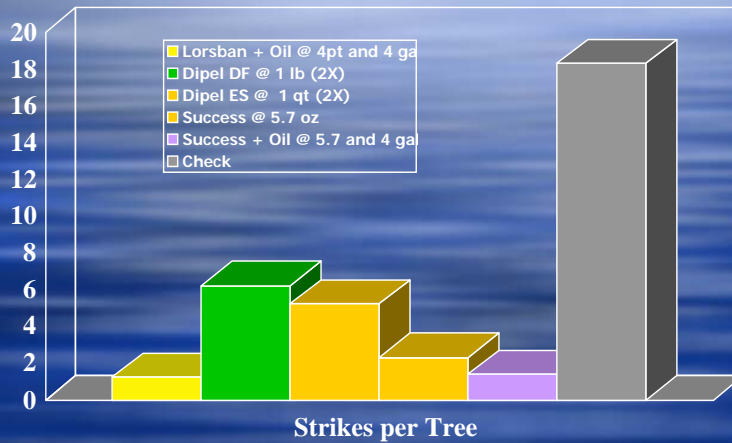


## Results of PTB Insecticide Trial, Almonds, Merced, CA



## Treatment Timing

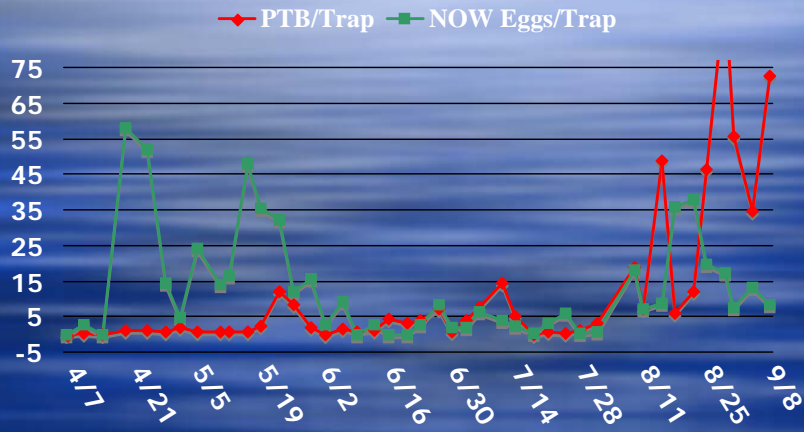
### Monitoring

- ◆ Pheromone Traps are Critical Place by April 1
- ◆ As approaching 900 dd make strike counts

### Action

Establish Biofix  
(1<sup>st</sup> moth)  
Treat between 400 to 500  
dd after 1<sup>st</sup> moth  
Make choices based on  
previous damage

# NOW/PTB Timing 1983

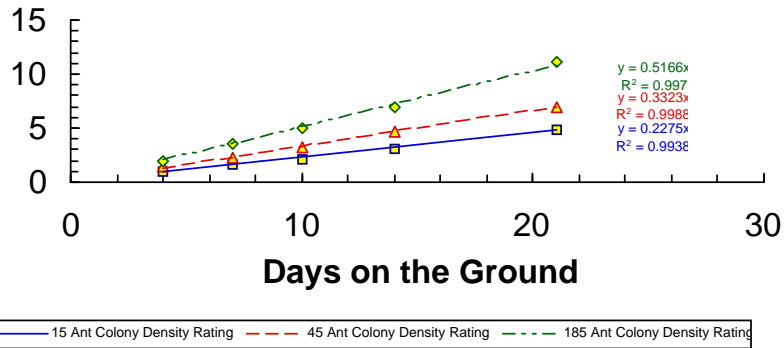


## Ant Management in Almond

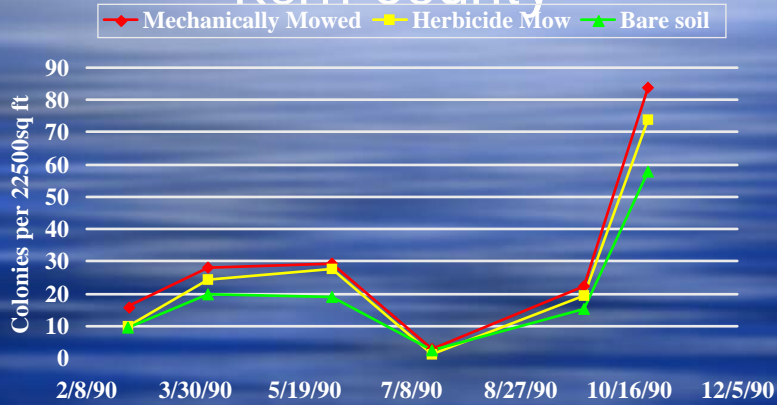


# Southern Fire Ant

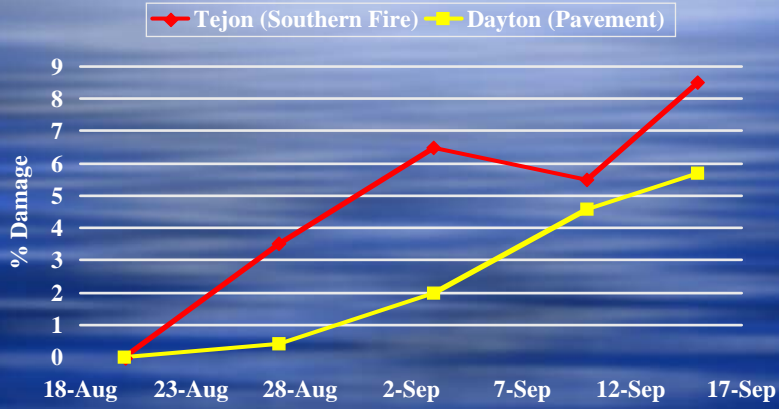
## Ant Colony Density and Nut Damage 1988



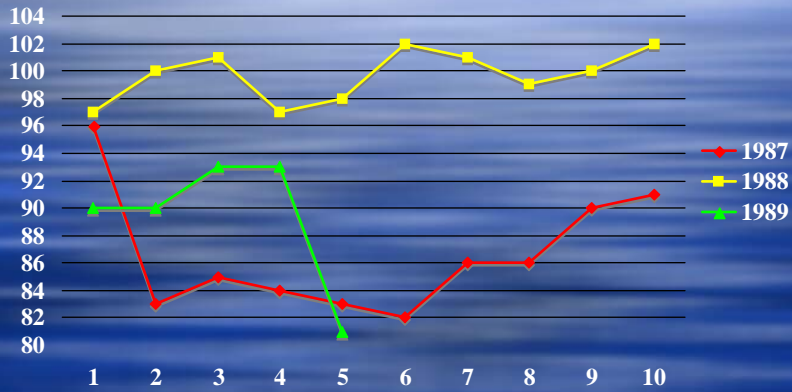
## Seasonal Dynamics of Visible Southern Fire Ant Colonies, Kern County



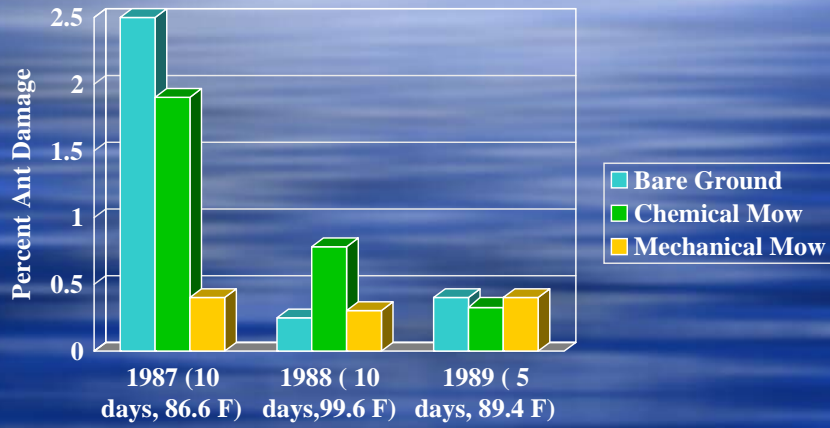
# Ant Damage Over Time



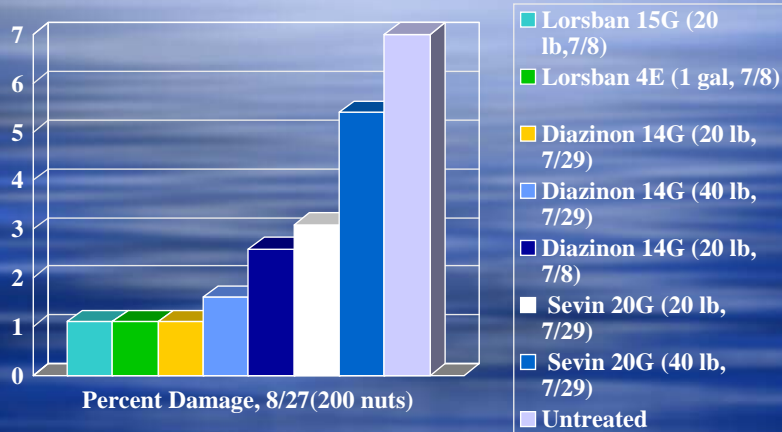
# Daily High Temperatures During Almond Harvest



## Average Daily High Temperature and Time of Exposure on Almond Ant Damage



## Southern Fire Ant Insecticide Trial





Pacific mite, eggs

Willamette mite, eggs



Western predator mite, eggs



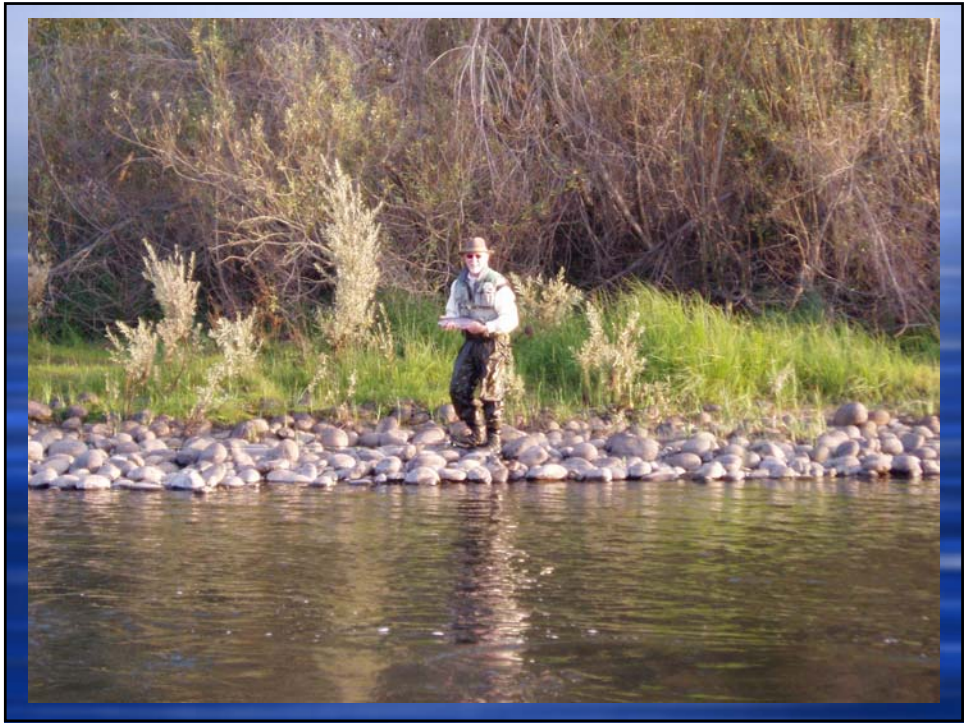
Tydeid mite, eggs

## Pacific Mite wintering population



## Effects of miticide treatments at hull split on the density of motile spider mites on heavily infested almond leaves, 2008

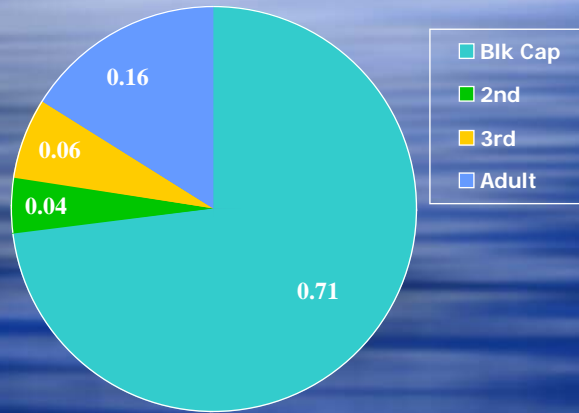
	Rate	Pre	Average spider mites per leaf (at indicated date and days after treatment)							
			7/11 2	7/17 9	7/24 16	7/31 23	8/6 29	8/13 36	8/18 41	8/25 48
Zeal <sup>1</sup>	3 oz	4.4 a	0.03 a	0.03 a	0.00 a	0.58 a	0.30 a	0.80 a	1.40 a	3.72 a
Envidor <sup>1</sup>	25.6 fl oz	2.4 a	0.06 a	0.01 a	0.00 a	0.02 a	0.02 a	0.02 a	0.10 a	0.29 a
Kanemite <sup>1</sup>	31 fl oz	5.0 a	0.02 a	0.01 a	0.03 a	0.99 a	1.05 bc	2.15 a	1.21 a	1.76 a
Acramite <sup>1</sup>	16 oz	3.3 a	0.02 a	0.05 a	0.00 a	0.20 a	0.35 ab	1.03 a	1.05 a	2.68 a
Brigade <sup>1</sup>	16 oz	2.5 a	0.00 a	0.00 a	0.00 a	0.01 a	0.04 a	0.18 ab	2.37 a	1.54 a
Fujimite <sup>1</sup>	2 pt	6.3 a	0.00 a	0.03 a	0.00 a	0.04 a	0.18 ab	0.50 a	0.28 a	0.40 a
415 Oil	2%	1.7 a	0.13 a	0.10 a	0.00 a	0.28 a	0.49 ab	0.48 a	1.23 a	2.30 a
Untreated	--	7.4 a	2.19 a	1.41 b	2.05 b	2.15 a	1.58 c	1.98 a	2.61 a	1.24 a



## Monitoring with San Jose Scale Pheromone Traps

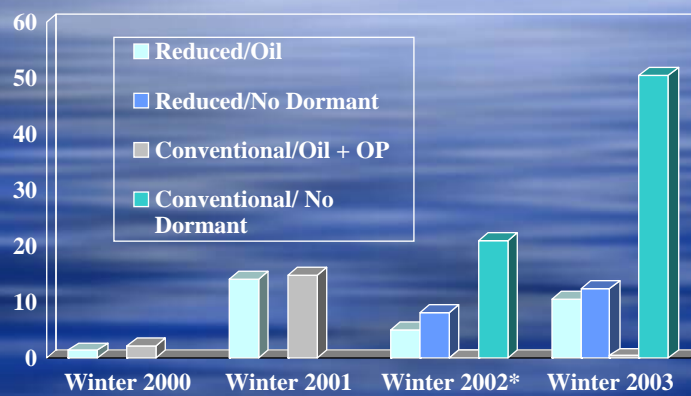


Percent Composition of Different  
San Jose Scale Life Stages  
January 2003

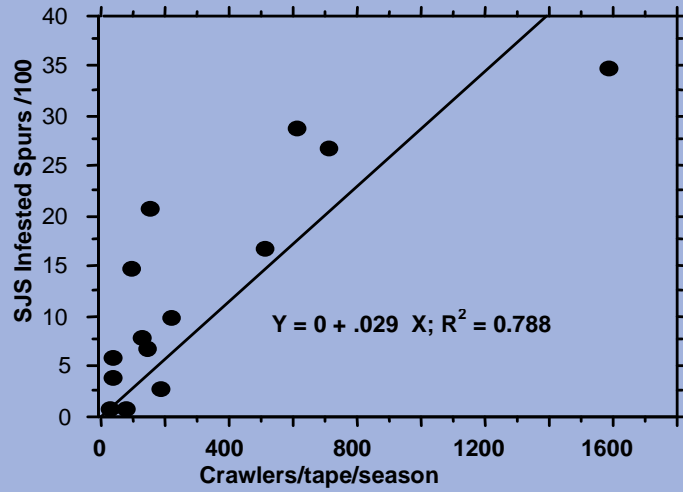




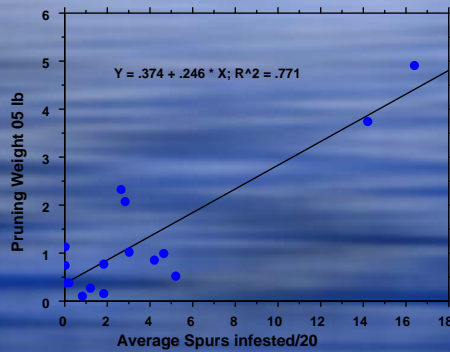
### Percent Infestation of Spurs by San Jose Scale, Kern Almond PMA



Relationship between San Jose Scale crawlers per tape per season and number of infested spurs per 100 sampled. Data pooled from 5 orchards.



Relationship Between Spur Infestation and Dead Wood From Prunings, Wasco, Ca, 2005





Leaffooted  
Plant Bug,  
Various



Damage  
Leaffooted  
Plant Bug

