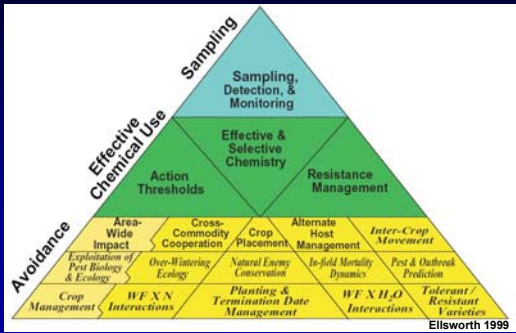


Insect Management in Drip Irrigation

John Palumbo
Yuma Agricultural Center



Insect Management in Drip Irrigation



Insect Management in Drip Irrigation



Insect Management in Drip Irrigation

Advantages

- Water / Nutrient management
- Access to field with ground equipment
- Ability to Chemigate

Chemigation



- Vapam
- Cloropicrin
- Vydate
- MSR



Soil Application

- Pre-plant bed shaping
- At-planting



Chemigation

Drip irrigation is the optimal application method for Admire and Platinum

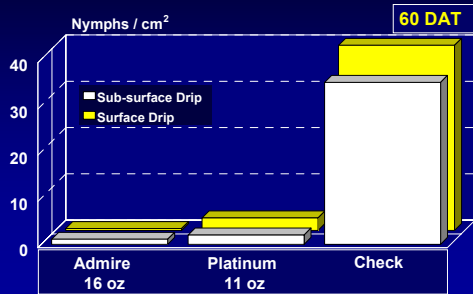


Surface drip

Sub-surface drip

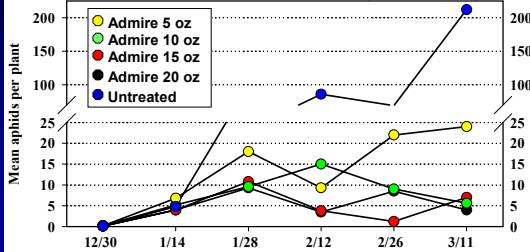
Influence of Drip Irrigation on Imidicloprid Efficacy & Whitefly Control

Yuma, AZ - June 4, 2001



Green Peach Aphid Control with Admire in Lettuce via Drip Chemigation

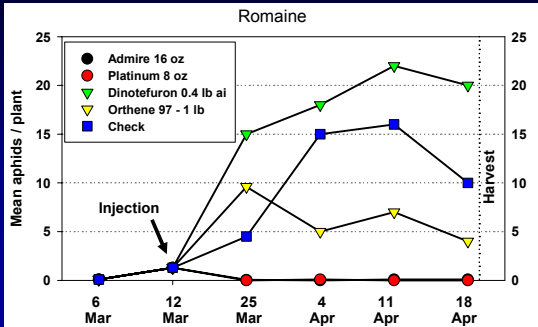
Wet Date - Nov 17 Yuma Ag Center, Spring 1996



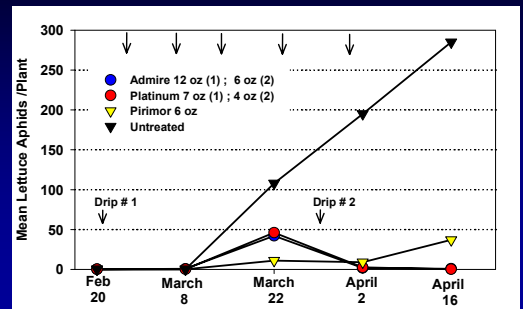
Lettuce Aphid Efficacy In Drip Irrigated Romaine



Lettuce Aphid Efficacy on Drip Romaine Lettuce – Spring 2002



Lettuce Aphid Efficacy on Drip Romaine Lettuce – Spring 2001



Uniform Chemigation is Critical for Effective Insect Management

You need to have the injection period be long enough to move the chemical through the entire drip system

AND

You need to have a post-injection period of clean irrigation water.

Insect Management in Drip Irrigation



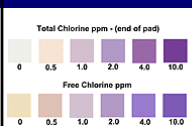
Uniform Chemigation:

The injection period should be at least as long as it takes water / chemical to move from the head to tail-end of the drip system. Twice as long is better.

The post-injection, clean water irrigation period should be at least as long as it takes water / chemical to move from the head to tail-end of the drip system. Twice as long is definitely better.

Insect Management in Drip Irrigation

- The easiest way to determine travel times of chemicals (and water) through a drip system:



» Inject chlorine (at about 10 - 20 ppm) into the system and follow its movement through the drip system.

» It is easy to spot when chlorine reaches any point by testing the water with a pool/spa test kit.

Timing of Admire / Platinum Application

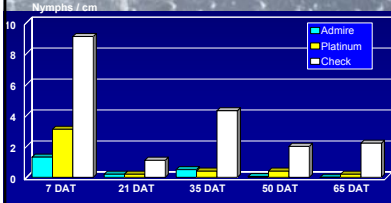




Fall Melon Trial

Brown Ranch

Somerton, AZ
Fall 2002



* Admire 16 oz

* Platinum 8 oz

Neonicotinoids For Flea Beetle Control

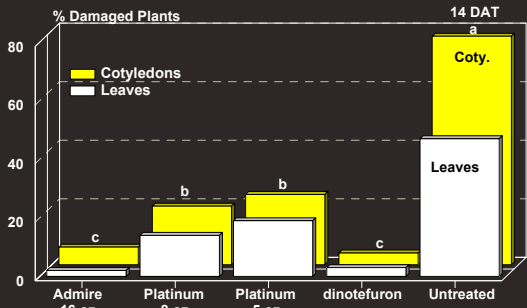


Pale-striped Flea Beetle



Desert Flea Beetle

Flea Beetle Control on Melons Fall 2001 - Furrow Irrigated



Flea Beetle Control on Melons Fall 2002 - Drip Irrigated

