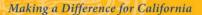
University of California Agriculture and Natural Resources





Citrus Notes Tulare County

Volume 9 Issue 5, August 2011

2011 Series Citrus Research Growers' Educational Seminars

Citrus Research Board (CRB) and University of California Cooperative Extension

San Joaquin Valley Seminars

Same program offered at your choice of locations:

Thursday, August 25, 2011 Kearney Agricultural Center 9240 S. Riverbend Ave., Nectarine Room Parlier, CA 93648 Friday, August 26, 2011
Exeter Memorial Building
324 North Kaweah
Exeter, CA 93221

Registration begins at 7:30 A.M. Seminar Sessions: 8:30 A.M. – 2:00 P.M.

Hunting for ACP Natural Enemies in Pakistan

Findings from the search for ACP predators
Dr. Mark Hoddle/Raju Penday, UCR, Entomologist

More options = Risks and Benefits for Growers

New Varieties & Rootstocks- Incompatibilities
Dr. Mikeal Roose, UCR, Chair & Prof. of Genetics, Botany & Plant Sciences

Major Soil-borne Fungal Diseases in Citrus & Their Control

Control treatment applications & cultural practices to prevent infection Dr. Akif Eskalen, UCCE, Plant Pathologist

Statewide & San Joaquin Valley Water Issues

Discussion on state & local water availability/quality
David Zoldoske, CEO, Center for Irrigation Technologies, CSU, Fresno

Efficient Citrus Irrigation: Methods, Monitoring & Mgmt

Crop water use, soil moisture storage & monitoring, irrigation methods, and management options for citrus

Kearney: Larry Schwankl, UCCE Irrigation Specialist, UC ANR

Exeter: Blake Sanden, UCCE, Irrigation & Agronomy Farm Advisor

Ozone Removal & VOC Emissions in Citrus Trees

Regional Air Quality Implications
John Karlik, UCCE, Kern County

Questions & Answers

Lunch

GIS in Farming Practices

Kris Lynn-Patterson, UC KAC, GIS Academic Coordinator

3 in 30...

News Shooters on the latest developments & new technologies for California citrus

Ted Batkin, President, Citrus Research Board

Approved for 3.0 hours of continuing education credit

\$25.00 per person includes lunch and course materials

For planning purposes, please register in advance via one of the following methods:

Mail: Please se	end coupon no later than Frida	y, August 19th; Phone: (559) 738-0246 or Fax: (559)738-0607 b	y
noon A	ugust 22nd; Email: <u>info@citrus</u>	research.org; or Register online: www.citrusresearch.org	
	(You may pay	at the door - cash or check only)	
		designate which seminar you will attend	-
	Parlier, Thursday, Augu	st 25 th : Please make reservations for (Qty.)	
	Exeter, Friday, August	t 26 th : Please make reservations for (Qty.)	
Name:			
Address: _		_ _	
Phone:	Fax:	E-Mail:	
Enclosed is my		<i>Make check payable to Citrus Research Board</i> . Mail che esearch Board, P.O. Box 230, Visalia, CA 93279	ck
			-

Water Infiltration

The problem: Where this condition exists, ponding or runoff results. Stress in the tree may result, even though the amount of applied water matched the water requirements of the tree. If nutrients are being applied in the irrigation, a portion of those nutrients may be lost to the tree. Ponding or runoff may be a result of one or more factors. Equipment operated on wet soil produces compaction, resulting in a lower rate at which water enters the soil. In some cases the rate of water delivery from the emitter exceeds the infiltration rate of the soil, resulting in runoff. Water infiltration rate of the soil can be affected by water quality. Low salinity

waters (less than 0.5 dS/m) tend to leach surface soil free of soluble minerals and salts, particularly calcium, reducing their strong stabilizing influence on soil aggregates and soil structure. Canal water is low in salt. Continued use displaces calcium from soil particles, resulting in a dispersion of soil particles. The particles "run" together, reducing pore spaces and lowering water infiltration rate. Corrective action involves application of calcium containing amendments such as gypsum. Application can be made to the soil, although the benefit may be lost before the end of the irrigation season. Introduction into the irrigation water is

beneficial. It must be applied in each irrigation; if discontinued, the infiltration rate quickly drops back to the pretreatment level. The rate of application is related to the quality of the water; 500 - 900 pounds per acre foot of water may be required. The increase in infiltration rate results from the following chemical changes:

CaSO4(calcium sulfate=gypsum) + Na soil(sodium soil) > Ca(calcium)soil + NaSO4(sodium sulfate). The sodium produced must then be leached from the root zone. The presence of the calcium in place of the sodium on the soil particle exchange sites allows aggregation of particles with an increase in pore space and an increase in the rate of water infiltration.

Low Volume Irrigation Emitters

Plugging of emitters can occur during the irrigation season when weed growth and insect populations are favorable. False chinch bug is capable of plugging emitters. Large numbers of this insect often develop where spurge is present. Commonly, large numbers of the insect, both immature nymphs and adults, can be found under mats of spurge. The insect is attracted to microsprinkler emitters. The emitter can serve as an egg-laying site, resulting in partial or complete plugging of the emitter. Control of the spurge eliminates it as a food source and location to aggregate. In addition, emitters are available that prevent access by the insect when the irrigation system is not operating. In the case of very young trees, high numbers of chinch bugs have been observed moving into the trees, resulting in significant damage from their feeding in the tree canopy, and in some cases resulting in death of the trees.



Spotted Spurge



False Chinch Bug



European Earwig

Tree Wraps

Installing tree wraps on young trees provides protection to the trunk from applications of herbicides during weed management operations. Additionally, the wraps minimize light interception by trunk tissue, thereby minimizing sucker growth. During hot weather, tree wraps provide shade to the trunk and reduce the incidence of sunburn. With the increasing incidence of earwig damage to young trees and the tendency for the insect to congregate under the wraps, tree wraps have been removed in some instances. When wraps are removed, care should be exercised to paint the trunk with a uniform coating of sun protective material to protect against sun damage. Once this is done, trunk surfaces should be periodically monitored to ensure that the coating is adequate.

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Neil O'Connell Farm Advisor

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