Imperial County Agricultural Briefs

Features

From your Farm Advisors

University of California
Agriculture and Natural Resources

October, 2013

Table of Contents

INSECTICIDE EFFICACY AGAINST WORM PESTS IN CABBAGE, 2012.

Eric T. Natwick

The objective of the study was to evaluate the efficacy of various insecticides against worm pests beet armyworm (BAW) and cabbage looper (CL) on cabbage under desert growing conditions. Cabbage (Headstart) was direct seeded on 11 Sep 2012 at the University of California Desert Research and Extension Center, El Centro, CA into double row beds on 40 inch centers. Stand establishment was achieved using overhead sprinkler irrigation, and furrow irrigation was used thereafter. Plots were four beds 13.3 ft wide by 40 ft long and bordered by one untreated bed. Four replications of each treatment were arranged in a randomized complete block design experiment. Insecticidal compounds, formulations and application rates along with treatment dates are provided in the tables. All insecticide treatments were foliar sprays applied on 5 Oct and 19 Oct 2012 with a Lee Spider Spray Trac Tractor, 4-row sprayer with three TJ-60 11003VS nozzles per row that delivered 53 gpa at 30 psi. DuPont TN MSO-D-17F0684 100% methylated seed oil was added to each foliar spray mixture at 0.5% vol/vol. Numbers of BAW and CL from 10 plants per plot in each replicate were recorded on 4 Oct, one day prior to insecticide applications (1DPT) and on each of the following sampling dates and days after treatment (DAT) indicated: 8 Oct (3DAT1), 18 Oct (13DAT1), 22 Oct (3DAT2), 29 Oct (10DAT2), and 5 Nov, (17DAT2). Data were analyzed using ANOVA. Differences among means on each sampling date and in each experiment were determined using Least Significant Difference Test (P=0.05).

BAW pressure was low but differences were detected among the treatment means on 18 Oct (13DAT1) and for the post treatment average (PTA) where all insecticide treatments had significantly fewer BAW than the untreated check, Table 1. There were no differences among the treatments for BAW larvae on any of the other sampling dates.

CL pressure was normal compared to past years. There were no differences among the treatment means for CL larvae on 4 Oct, 1-day prior to insecticide treatments (1DPT), Table 2. All insecticide treatments had means for CL larvae that were significantly lower than the means for untreated check treatment on all post-treatment sampling dates except on 18 Oct (13DAT1) when none of the insecticide treatments had means for CL larvae that were significantly lower than the mean for untreated check. The PTA for each of the insecticide treatments was significantly lower than the PTA for the check. There were no visible symptoms of phytotoxicity following any of the insecticide treatments. This research was supported by industry gifts.

Table 1.

		BAW per ten plants						
		4 Oct	8 Oct	18 Oct	22 Oct	29 Oct	5 Nov	
Treatment	Oz/acre	1DPT	3DAT1	13DAT1	3DAT2	10DAT2	17DAT2	PTA
DPX-KN128 30 WG	3.5 dry	0.00 a	0.00 a	0.00 b	0.00 a	0.00 a	0.25a	0.05 b
DPX-KN128 30 WG	6.0 dry	0.00 a	0.00 a	0.00 b	0.00 a	0.00 a	0.25 a	0.05 b
Avaunt 30 WG	3.5 dry	0.00 a	0.00 a	0.00 b	0.00 a	0.00 a	0.00 a	0.00 b
Avaunt 30 WG	6.0 dry	0.00 a	0.00 a	0.00 b	0.00 a	0.00 a	0.25 a	0.05 b
Coragen SC	5.0 fl	0.00 a	0.00 a	0.00 b	0.00 a	0.00 a	0.00 a	0.00 b
Radiant SC	5.0 fl	0.25 a	0.00 a	0.00 b	0.00 a	0.00 a	0.00 a	0.00 b
Check	--------	0.25 a	0.25 a	1.00 a	0.75 a	0.25 a	0.50 a	0.55 a

Means within columns followed by the same letter are not significantly different, $P > 0.05$, LSD.

DPT = Days prior to treatment.

DAT = Days after treatment.

PTA = Post treatment average.

Table 2.

		CL per ten plants						
		4 Oct	8 Oct	18 Oct	22 Oct	29 Oct	5 Nov	
Treatment	Oz/acre	1DPT	3DAT1	13DAT1	3DAT2	10DAT2	17DAT2[z]	PTA
DPX-KN128 30 WG	3.5 dry	1.25 a	0.00 b	0.00 a	0.00 b	0.50 b	1.25 bc	0.35 b
DPX-KN128 30 WG	6.0 dry	1.00 a	0.00 b	0.25 a	0.00 b	0.00 b	2.25 b	0.50 b
Avaunt 30 WG	3.5 dry	1.50 a	0.00 b	0.00 a	0.00 b	0.75 b	1.00 bc	0.35 b
Avaunt 30 WG	6.0 dry	0.00 a	0.00 b	0.00 a	0.00 b	0.00 b	1.00 bc	0.20 b
Coragen SC	5.0 fl	0.00 a	0.00 b	0.00 a	0.00 b	0.00 b	0.75 c	0.15 b
Radiant SC	5.0 fl	2.75 a	0.00 b	0.00 a	0.00 b	0.00 b	0.75 c	0.15 b
Check	--------	2.00 a	2.50 a	1.00 a	1.00 a	4.50 a	8.50 a	3.50 a

Means within columns followed by the same letter are not significantly different, P > 0.05, LSD.

DPT = Days prior to treatment.

DAT = Days after treatment.

PTA = Post treatment average.

[z] Log transformed data uses for analysis, but actual means are shown in the table.

COOPERATIVE EXTENSION
UNIVERSITY OF CALIFORNIA
IMPERIAL COUNTY

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Telephone: (760) 352- 9474 **http://ceimperial.ucdavis.edu** **FAX Number: (760) 352-0846**

Irrigation and Water Management Workshop
Day 1 (Imperial Valley)

When: Wednesday October 9, 2013 (8:30 AM to 12 PM)

Where: University of California Desert Research & Extension Center
1004 E. Holton Rd., El Centro, CA 92243

Tentative Agenda

8:15 AM	Registration
8:30 AM	Introductory remarks, Khaled Bali and Sergio Fierro, UCCE-Imperial County and California Department of Water Resources
8:40 AM	Current Research on Crop Evapotranspiration - Dr. Rick Snyder, UC Davis.
9:30 AM	Spatial CIMIS, Dr. Bekele Temesgen, California Department of Water Resources
10:20 AM	Break
10:40 AM	Consumptive Use Program (CUP+), Dr. Morteza Orang, California Department of Water Resources
11:30 AM	Water Conservation Research Update (Summer Deficit Irrigation on Alfalfa and Subsurface Drip Irrigation on Alfalfa), Dr. Khaled Bali, UCCE-Imperial County
12:00 PM	Adjourn

For additional information on the Imperial Valley workshop, contact Khaled Bali, kmbali@ucanr.edu or call 760-352-9474.

The same workshop will be offered in **Spanish** in Mexicali on October 10, 2013.
(Please see the October 10, 2013 Spanish agenda for location and details)

Please feel free to contact us if you need special accommodations.

SECRETARÍA DE FOMENTO AGROPECUARIO DE BAJA CALIFORNIA

COOPERATIVE EXTENSION UNIVERSITY OF CALIFORNIA
IMPERIAL COUNTY

1050 E. HOLTON ROAD HOLTVILLE, CALIFORNIA 92250-9615
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TALLER SOBRE MANEJO DEL AGUA DE RIEGO
Irrigation and Water Management Workshop

Día: Jueves 10 de Octubre del 2013.
Hora: 8:30 a 12:00 Hrs.
Lugar: Secretaría de Fomento Agropecuario, Sala Secretarios. Teléfono (686) 551-7308
Ejido Sinaloa, Km 22.5 carretera Mexicali-San Luis Río Colorado. México.

8:15 A.M.	Registro de asistentes (Registration).
8:30 A.M.	Objetivos del talle (Introductory remarks); *Carlos Orozco (Director de Agricultura) y Sergio Fierro (Departamento de Recursos del Agua de California).*
8:40 A.M.	Investigaciones actuales sobre la Evapotranspiración de cultivos (Current Research on Crop Evapotranspiration); *Dr. Rick Snyder, UC Davis.*
9:30 A.M.	Espacial CIMIS (Spatial CIMIS); - *Dr. Bekele Temesgen, Departamento de Recursos del Agua de California.*
10:20 A.M.	Receso (Break).
10:40 A.M.	Programa de Uso Consuntivo (taza+) (Consumptive Use Program (CUP+); *Dr. Morteza Orang, Departamento de Recursos del Agua de California.*
11:30 A.M.	Riego deficitario de verano en alfalfa y riego por goteo subsuperficial en Alfalfa (Water Conservation Research Update; Summer Deficit Irrigation on Alfalfa and Subsurface Drip Irrigation on Alfalfa); *Dr. Khaled Bali, UCCE del Condado de Imperial.*
12:00 P.M.	Clausura del taller (Adjourn).

For additional information on the Mexicali workshop, contact Carlos Orozco <corozco@baja.gob.mx>

El mismo taller se ofrece en Inglés en el Valle Imperial el 9 de octubre de 2013.
(por favor vea el 09 de octubre 2013 programa Inglés para la ubicación y detalles)

No dude en contactar con nosotros si necesita acomodo especial favor.

Available Thursday, October 3, 2013!

$25.00 includes hard copy and either a CD or USB

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CIMIS REPORT AND UC DROUGHT MANAGEMENT PUBLICATIONS

Khaled Bali and Sharon Sparks*

California Irrigation Management Information System (CIMIS) is a statewide network operated by California Department of Water Resources. Estimates of the daily reference evapotranspiration (ET_o) for the period of October 1 to December 31 for three locations in the Imperial County are presented in Table 1. ET of a particular crop can be estimated by multiplying ET_o by crop coefficients. For more information about ET and crop coefficients, contact the UC Imperial County Cooperative Extension Office (352-9474) or the IID, Irrigation Management Unit (339-9082). Please feel free to call us if you need additional weather information, or check the latest weather data on the worldwide web (visit http://tmdl.ucdavis.edu and click on the CIMIS link).

Table 1. Estimates of daily Evapotranspiration (ET_o) in inches per day

Station	October		November		December	
	1-15	16-31	1-15	15-30	1-15	16-31
Calipatria	0.23	0.19	0.14	0.10	0.07	0.07
El Centro (Seeley)	0.23	0.17	0.13	0.09	0.06	0.06
Holtville (Meloland)	0.23	0.18	0.13	0.10	0.06	0.06

* Imperial Irrigation District.

Link to UC Drought Management Publications

http://ucmanagedrought.ucdavis.edu/