Imperial County Agricultural Briefs

Features

From your Farm Advisors

March, 2011

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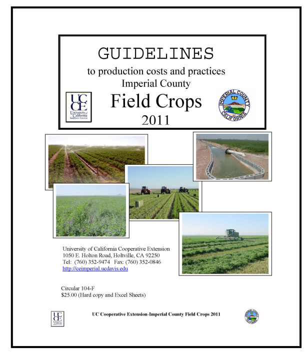
2011 GUIDELINES TO PRODUCTION COSTS AND PRACTICES-IMPERIAL COUNTY-FIELD CROPS

Khaled M. Bali

The new 2011 Guidelines to Production Costs and Practices in Imperial County- Field Crops will be available from the Cooperative Extension office on Monday March 7, 2011. The information presented in the field crops guidelines allows one to get a "ballpark" idea of field crop production costs and practices in the Imperial County. Most of the information was collected through verbal communications via office visits and personal phone calls. The information does not reflect the exact values or practices of any one grower, but are rather an average of countywide prevailing costs and practices. Exact costs incurred by individual growers depend upon many variables such as weather, land rent, seed, choice of agrichemicals, location, time of planting, etc. No exact comparison with individual grower practices is possible or intended. The budgets do reflect, however, the prevailing industry trends within the region.

Since all of the inputs used to figure production costs are impossible to document in a single page, we have included extra expense in man-hours or overhead to account for such items as pipe setting, motor grader, water truck, shovel work, bird and rodent control, etc. Whenever possible we have given the costs of these operations per hour listed on the cultural operations page. Some custom operators have indicated that they are instituting a “fuel surcharge” to reflect “spikes” in fuel cost.



Not included in these production costs are expenses resulting from management fees, loans, providing supervision, or return on investments. The crop budgets also do not contain expenses encumbered for road and ditch maintenance, and perimeter weed control. Presented within are three crop budgets for alfalfa (flat, bed, seed). All others crop budgets can be determine by substituting costs relevant to each individual farm enterprise using the prevailing rates tables. Sample Excel sheets for each of the remaining major field crops are included in the document. The user needs to input production data appropriate to their individual operations to estimate production costs.

This circular (104-F) is available on compact disc or USB thumb drive. The text files are in Microsoft Word format. The spreadsheet files (i.e., production costs tables) are in Excel format. Please note that these are files and not the programs to run them.

One advantage of having electronic versions of the crop production files is that they may be loaded into a spreadsheet program and the values altered to fit your needs. You can build a spreadsheet for your individual crop inputs while retaining the formulas for instantaneous recalculation of the whole page. For example, how would overall costs be affected if land rent were $50 per acre less, or if you chose a less expensive variety? The answer is right at your fingertips! You can see your cost projection instantly at any given price and yield level, plus a break-even price.

The cost of the CD, USB thumb drive, or electronic version of Guidelines to production costs and practices for Imperial County Field Crops circular (104-F) is $25. This includes the hard copy of the Guide, one of the above electronic choices, and shipping costs.

SPRING SWEET CORN INSECTICIDE EFFICACY TRIAL, 2010

Eric T. Natwick

The study objective was to evaluate the efficacy of new and a standard insecticide for control of armyworm (AW) and corn earworm (CEW) on sweet corn under spring season desert growing conditions. Sweet corn (Var. Boreal) was direct seeded on 17 February 2010 at the University of California Desert Research and Extension Center into single row beds on 40 inch centers. Stand establishment and crop maintenance was achieved using furrow irrigation. Plots were 2-beds wide by 60 ft long. Four replications of each treatment were arranged in a RCB design. Formulations and rates for each compound and the sampling dates are provided in Tables 1 - 3. The applications were made with handheld CO_2 propelled sprayer with 6-nozzle, 2-bed boom with 3 Conjet TXVS-4 nozzles per bed spaced 15" apart; the outer 2 nozzels on 15" drops facing the plant angled 135° down from vertical delivering 10.4 gpa at 22.5 psi. A modified Davis scale 0.01-9 (*shown below*) was used to rate AW damage as shown in Table 1.

0.01 No visible leaf injury.
1. Pin-hole damage on a few leaves.
2. Small amount of shot-hole damage on a few leaves.
3. Shot-hole damage on several leaves.
4. Shot-hole damage and lesions on a few leaves.
5. Lesions on several leaves.
6. Large lesions on several leaves.
7. Large lesions and portions eaten away on a few leaves.
8. Large lesions and portions eaten away on several leaves.
9. Large lesions and portions eaten away on most leaves.

Additionally, AW larvae per ten plants were counted on the dates listed in Table 2. Evaluation of insecticide efficacy against CEW was based on the number of live larvae per ten randomly selected corn ears per plot and on the cm of feeding damage per ear on ten ears per plot on the dates listed in Tables 5 and 6. Insecticide treatments were applied as listed in Table 1. Data sets were analyzed using 2-way ANOVA and means separated by a protected LSD (P<0.05).

The AW pressure was normal for the spring season. Insecticide treatments were applied after the first AW evaluation 3 May. There were no changes in AW damage ratings in relation to the check until 11 May after the fourth application of insecticide treatments when all had significantly less (*P*=0.05) damage than the check except the Coragen SC followed by (f/b) Asana XL f/b Radiant at 3.5, 7.0, and 6.0 oz/acre, NAI-2302 15EC at 21.0 oz/acre and Entrust f/b BugOil f/b Pyganic 5EC. The numbers of AW larvae for all insecticide treatments were not significantly different from the check on 3 and 4 May, but on 6 May, all insecticide treatments had significantly fewer AW than the check except Entrust f/b BugOil f/b Pyganic 5EC.

The CEW pressure was moderate during the study. There were no differences among the insecticide treatments and check for mean numbers of for CEW larvae per ten corn ears on 6 May, but all insecticide treatments had fewer CEW than the check. No phytotoxicity was observed following any of the insecticide treatments. NAI-2302 15EC is Tolfenpyrad under development by Nichino America, Inc., and DPX-HGW86 10SE is Cyazypyr™ under development by E. I. du Pont de Nemours and Company and neither were registered for use on sweet corn at the time of this publication.

Table 1. Treatment List		Application Dates	AW Rating			
Treatment	Oz/acre or %		3 May	4 May	6 May	11 May
Check	---------	--------------------	1.45	0.80	0.91	0.38 a
Voliam Xpress[2] Radiant[2]	7.0 6.0	3 and 7 May 5 and 10 May	0.88	0.31	0.16	0.06 d
Voliam Xpress[2] Radiant[2]	9.0 6.0	3 and 7 May 5 and 10 May	0.85	0.58	0.71	0.16 bcd
Warrior II[2] Radiant[2]	1.92 6.0	3 and 7 May 5 and 10 May	1.10	0.33	0.41	0.16 bcd
Baythroid XL[1] Belt SC[1]	2.8 3.0	3, 5 and 10 May 7 May	0.88	0.53	0.43	0.11 cd
Coragen SC[2] Asana XL[2] Radiant[2]	3.5 7.0 6.0	3 and 10 May 5 May 7 May	1.18	0.48	0.26	0.31 abc
Coragen SC[2] Asana XL[2] Radiant[2]	5.0 7.0 6.0	3 and 10 May 5 May 7 May	1.18	0.33	0.18	0.13 bcd
Tourismo	6.9	3, 7 and 10 May	1.33	0.36	0.31	0.08 d
Tourismo	10.3	3, 7 and 10 May	0.93	0.43	0.36	0.06 d
NAI-2302 15 EC	14.0	3, 7 and 10 May	1.23	0.58	0.78	0.16 bcd
NAI-2302 15 EC	21.0	3, 7 and 10 May	0.93	0.53	0.48	0.23 abcd
Entrust BugOil Pyganic 5EC	2.0 2% v/v 2% v/v	3 and 10 May 5 May 7 May	1.60	0.43	0.91	0.33 ab
DPX-HGW86 10SE	12.6	3 and 10 May	1.05	0.38	0.43	0.08 d

[1]NIS at 0.25% v/v.

[2]MSO at 0.5 % v/v

Means within columns followed by the same letter are not significantly different, ANOVA; LSD (P<0.05).

Table 2. Treatment List		Application Dates	Numbers of AW damaged per ten plants		
Treatment	Oz/acre or %		3 May	4 May	6 May
Check	---------	--------------------	5.75	3.25	3.25 a
Voliam Xpress[2] Radiant[2]	7.0 6.0	3 and 7 May 5 and 10 May	3.50	0.75	0.25 d
Voliam Xpress[2] Radiant[2]	9.0 6.0	3 and 7 May 5 and 10 May	3.00	1.75	0.25 d
Warrior II[2] Radiant[2]	1.92 6.0	3 and 7 May 5 and 10 May	4.25	1.25	0.75 cd
Baythroid XL[1] Belt SC[1]	2.8 3.0	3, 5 and 10 May 7 May	2.00	1.75	1.50 bcd
Coragen SC[2] Asana XL[2] Radiant[2]	3.5 7.0 6.0	3 and 10 May 5 May 7 May	2.50	1.50	1.25 bcd
Coragen SC[2] Asana XL[2] Radiant[2]	5.0 7.0 6.0	3 and 10 May 5 May 7 May	4.50	1.00	0.25 d
Tourismo	6.9	3, 7 and 10 May	6.25	2.25	1.00 cd
Tourismo	10.3	3, 7 and 10 May	3.25	1.50	1.00 cd
NAI-2302 15 EC	14.0	3, 7 and 10 May	6.25	1.50	1.75 bc
NAI-2302 15 EC	21.0	3, 7 and 10 May	3.75	2.25	1.50 bcd
Entrust BugOil Pyganic 5EC	2.0 2% v/v 2% v/v	3 and 10 May 5 May 7 May	4.25	2.00	2.50 ab
DPX-HGW86 10SE	12.6	3 and 10 May	3.25	2.00	0.50 cd

[1]NIS at 0.25% v/v.

[2]MSO at 0.5 % v/v

Means within columns followed by the same letter are not significantly different, ANOVA; LSD (P<0.05).

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Table 3. Treatment List		Application Dates	Corn earworms per ten sweet corn ears	
Treatment	Oz/acre or %		6 May	11 May
Check	---------	--------------------	2.50	4.25a
Voliam Xpress[2] Radiant[2]	7.0 6.0	3 and 7 May 5 and 10 May	0.50	0.25 de
Voliam Xpress[2] Radiant[2]	9.0 6.0	3 and 7 May 5 and 10 May	1.25	0.75 bcde
Warrior II[2] Radiant[2]	1.92 6.0	3 and 7 May 5 and 10 May	0.00	0.00 e
Baythroid XL[1] Belt SC[1]	2.8 3.0	3, 5 and 10 May 7 May	1.75	0.75 bcde
Coragen SC[2] Asana XL[2] Radiant[2]	3.5 7.0 6.0	3 and 10 May 5 May 7 May	1.00	1.00 bcde
Coragen SC[2] Asana XL[2] Radiant[2]	5.0 7.0 6.0	3 and 10 May 5 May 7 May	0.50	1.50 bc
Tourismo	6.9	3, 7 and 10 May	0.75	0.25 de
Tourismo	10.3	3, 7 and 10 May	1.00	0.50 cde
NAI-2302 15 EC	14.0	3, 7 and 10 May	0.75	2.25 ab
NAI-2302 15 EC	21.0	3, 7 and 10 May	1.50	1.25 bcd
Entrust BugOil Pyganic 5EC	2.0 2% v/v 2% v/v	3 and 10 May 5 May 7 May	0.75	1.25 bcd
DPX-HGW86 10SE	12.6	3 and 10 May	0.00	0.75 bcde

[1]NIS at 0.25% v/v.

[2]MSO at 0.5 % v/v

Means within columns followed by the same letter are not significantly different, ANOVA; LSD (*P*<0.05).

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IRIS YELLOW SPOT VIRUS IN ONIONS




Donna Henderson, Eric Natwick, Brenna Aegerter, and Joe Nunez, University of California Cooperative Extension

California onion acreage is approximately 36,000, with a production value of $144m, making it the top onion-producing state in the U.S. Iris yellow spot is a viral disease of onions caused by *iris yellow spot virus* (IYSV) which was particularly damaging to California's onion crop this past season. Iris yellow spot was first observed in the U.S. in 1989 in southwestern Idaho and eastern Oregon. It was subsequently reported from Colorado (2002), California (2003), Oregon (2005), and Washington (2006) and from many other US states and in other countries. In California it has been a developing disease problem, although the occurrence of the disease seems to be rather erratic. This past season (2010) the incidence of the disease in California production areas was higher than in previous years but this might be due to this year's higher pressure of the vector (onion thrips, *Thrips tabaci* Lindman) and is not necessarily part of an upward trend in incidence.

SYMPTOMS AND DAMAGE

Symptoms of IYSV are yellow or straw-colored lesions on the leaves and scapes of the onion plant. Lesions on leaves (Figure 1) are variously shaped (elongate, diamond-shaped, or small flecks) and may be small or large. Lesions on scapes may be circular or diamond-shaped (Figure 2), research by H. Papu at Washington State University indicates that scape lesion shape may vary with the strains of the virus. Lesions may coalesce into large chlorotic areas which may girdle leaves and cause premature senescence or girdle scapes and result in lodging. Late-season IYSV infections may not result in plant death, yet vigor is reduced, as is bulb size and seed production. Losses can be severe. In Imperial Valley, the problem is severe in processing onions and can be problematic for seed production but hasn't been much of a problem in fresh market onions. Symptoms may vary quite a bit depending on virus strain, onion cultivar, or type of onion production (fresh market bulb, seed, or for dehydration) and leaf lesions can potentially be confused with other problems (e.g. fungal diseases or herbicide damage). Therefore, until one is familiar with the disease symptoms, it is best to have the problem identified by testing. Contact your Cooperative Extension Farm Advisor for assistance with a diagnosis.

CAUSAL ORGANISM and VECTOR

IYSV is a virus in the genus *Tospovirus* that also includes *tomato spotted wilt virus* (TSWV) and *impatiens necrotic spot virus* (INSV) which infect other vegetable crops including tomatoes, peppers, lettuce and others. IYSV can be detected by an ELISA-based test or by PCR. The only known vector or carrier of the virus is onion thrips (*Thrips tabaci*). Onion thrips acquire the virus during the larval stage while feeding on infected plants. Once a larva has acquired the virus, it is capable of spreading the virus to new plants for the remainder of its life. Adult thrips can bring the virus in from outside a field; within a field, larvae can acquire it from infected plants and spread it around.

Relatively little is known about what the most important sources of the virus are. In production areas where onion seed or bulb crops overlap with each other that is likely an important source of the virus. Infected volunteer onions likely also provide a "bridge" for the virus to survive in between onion crops. Another possibility is the survival of the virus in diapausing thrips in the soil. The virus does not appear to be seed-borne in onion. It has also not been detected in onion roots and only rarely detected in bulbs. Unlike TSWV, this virus does not seem to become systemic in the plant, so each lesion is the result of an independent infection.

ch, 2011

Although many weeds are capable of hosting the virus, very little is known about how important weeds are in contributing to disease outbreaks. Among the weedy hosts reported to be naturally infected are wild onion, sowthistle, red root pigweed, lambsquarter, kochia, prickly lettuce, purslane and puncturevine.

THRIPS MANAGEMENT

One challenge with this disease is the potential of the onion thrips vector to develop very large populations on onion in short periods. Thrips pressure is one of the more important factors affecting disease outbreaks, and reducing thrips populations in a timely manner is generally correlated with a reduction in disease incidence or severity.

In a 2010 trial in the Imperial Valley conducted by UC Farm Advisors, lower IYSV severity was correlated with lower thrips populations in plots sprayed with a thrips insecticide programs as compared with non-treated plots. All insecticide regimes were equally effective in reducing thrips and lowering IYSV severity (Figure 3). Note that some of the tested chemicals are **not currently registered** for onions in California (for example, spirotetramat is effective but not registered for onions). In general, the most effective registered materials for thrips control in onions include the pyrethroids zeta-cypermethrin and lambda-cyhalothrin (IRAC group 3), the carbamate methomyl (group 1A) and the spinosyns spinosad and spinetoram (group 5). Using softer insecticides such as the spinosyns early in the season might allow better survival of thrips predators, hopefully allowing fewer applications to be made. Among natural enemies of thrips are minute pirate bugs, predaceous mites, and lacewings, although these do not build up sufficient numbers to prevent crop injury from thrips.

Thrips are categorized as high-risk for developing resistance to insecticides. Resistance to organophosphate insecticides has been reported in other states and is suspected in California. Because of this, it is especially important to rotate insecticides from different chemical families. Thorough spray coverage is essential for control, since most thrips feed in protected areas of the plant, and use of surfactants may help the chemicals reach these less exposed thrips. During hot weather, application during the early morning or the evening when the thrips are more active is recommended.

For information on scouting for thrips and thrips identification, see the onion thrips management section on the UC IPM website at www.ipm.ucdavis.edu/PMG/r584300111.html. However, be aware that the treatment thresholds mentioned here are for direct economic damage from thrips feeding in the absence of IYSV; research is needed to determine economic thresholds for thrips when IYSV is present in the area.

CULTURAL CONTROLS

Variety selection. Some cultivars appear to more tolerant of the virus, while others are less attractive to the thrips vector. Evaluations of cultivars side by side reveal that cultivars with low numbers of thrips and low levels of thrips feeding damage tend to have a yellow-green leaf color, while susceptible cultivars tend to have a blue-green leaf color. Additionally, cultivars with glossy foliage tend to be more resistant than less glossy cultivars. Of course for onion seed growers, choosing cultivars is not an option.

Sanitation. When transplants are used, they should be thrips and disease-free. Note that it is possible for symptomless plants to be infected with the virus and test positive by PCR. Onion seed crops, bulb crops and green onion crops should be geographically isolated to the extent possible. Otherwise, each of these may serve as a "bridge" to allow the virus to survive year round and spread between onion crops. If volunteer onions could be providing that bridge, they should be controlled.

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Crop management to reduce plant stress. Avoid moisture and salt stress. In addition to carefully irrigation and management of soil salts, root diseases such as pink root and Fusarium basal plate rot should also be managed to avoid plant stress. Research in Colorado has shown that mulching onion beds with straw reduces thrips populations and IYSV incidence. The mechanism by which this works in not known, but may be through reduction of plant stress or conservation of natural predators of thrips.

Other cultural factors. Higher plant populations are associated with lower incidence of IYSV. Research in New York has shown that higher nitrogen fertilization resulted in higher populations of thrips larvae, indicating that either more eggs were laid on these plants, more larvae survived on these plants, or both. Overhead irrigation provides some suppression of thrips populations, but does not eliminate the need for other management tactic. Research is underway to further understand the factors that contribute to disease outbreaks which will hopefully lead to improved management recommendations in the future.

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ABOUT THE CONFERENCE

The University of California, Cooperative Extension, the San Diego County Farm and Home Advisor's Office in Collaboration with Crop Production Services (CPS), invite you to attend the first Southern California Organic Production Conference to be held Thursday - March 3rd, 2011 at the San Marcos Civic Center in San Marcos, CA.

WHO SHOULD ATTEND?

Organic growers, marketers, pest control advisers, organic certifiers, organic product distributors or allied industry representatives would not want to miss this conference. In addition to 5.5 hours of DPR CE and 6.5 hours of CCA, the conference will provide the latest on organic production practices, food safety, and organic rules and regulations impacting the organic industry.

TO REGISTER:

Please complete, detach and mail the registration form along with payment to the address provided. The registration fee is $60.00 if paid or post-marked by Friday – February 25, 2011. Late or walk in registration is $75.00 if space allows and will not be guaranteed lunch.

FOR MORE INFORMATION or Special Accommodations please contact:

Ramiro Lobo	760.752.4716
David Drucker	760.744.2514
Ricardo Plasencia	909.322.1655

Southern California ORGANIC PRODUCTION CONFERENCE

USDA ORGANIC

MARCH 3RD 2011

AT THE:
San Marcos Civic Center

3 Civic Center Drive
San Marcos, CA 92609
(760) 744 9000

CROP PRODUCTION SERVICES
1015 LINDA VISTA DR BLDG B
SAN MARCOS, CA 92078

Ag Briefs – March, 2011

SOUTHERN CALIFORNIA ORGANIC PRODUCTION CONFERENCE
Registration Form

Early registration fee: $ 60 per person,
If postmarked by 2/25/11
Late registration $ 75, lunch is not guaranteed

Number of persons: ________
Vegetarian meal request: ________

Name/s ______________________

____

Company Name ______________________

Address ______________________

____

Phone

Method of Payment (visa/MasterCard only)

- ☐ Check ☐ MasterCard
- ☐ Visa ☐

Credit Card No. ______________ Expire Date ________

Signature

MAIL TO:

CROP PRODUCTION SERVICES
1015 LINDA VISTA DR BLDG B
SAN MARCOS, CA 92078
PH: 760-744-2514
FX: 760-744-2239

EVENT SCHEDULE

7:00	**Registration**
7:50	**Welcome** Ramiro Lobo – Farm Advisor - UCCE San Diego County
8:00	**The Present and Future of California's Organic Agriculture** A.G. Kawamura, Farmer and Former California Secretary of Agriculture
8:30	**The California & National (USDA) Organic Program - Rules and Regulations** Steve Patton – California Department of Food and Agriculture
9:15	**Post Harvest Management & Food – The Law & Best Management Practices** Dr. Marita Cantwell, Ph. D., Post Harvest Management Specialist – UC Davis
10:00	***Break – Vendor booth Presentations***
10:30	**Exotic Pest & Quarantines: Issues & Challenges for Organic Growers** Jim Wynn, San Diego County Deputy Agricultural Commissioner
11:00	**Soil and Tissue Testing – Understand the Results, Maximize the Benefits** Michael Larkin, Precision Agri-Labs
11:30	**Nitrogen and Fertilizer Management for Organic Production Systems** Dr. Milt McGiffen, Ph.D., Vegetable Crops Specialist – UC Riverside
12:00	***Lunch – Vendor booth presentations (lunch w/ paid registration)***
1:00	**The LGMA Food Safety Program** Mike Villaneva, California Leafy Green Initiative
1:30	**What's Moving Down There? Understanding Soil Microbiology** Dr. Robert Ames, Ph.D., Advanced Microbial Solutions
2:00	**Weed Management Strategies for Organic Production Systems** Dr. Cheryl Wilen, Ph.D., Area IPM Advisor, UCCE San Diego County
2:30	**Insect Management Strategies for Organic Production Systems** Jim Bethke, Horticulture and Nursery Crops Farm Advisor – UCCE San Diego County
3:00	***Break – Vendor booth presentations***
3:30	**Disease Management Strategies for Organic Production Systems** Dr. Donna Henderson, Ph.D., Plant Pathology Farm Advisor – UCCE Imperial County
4:00	**Insect and Disease Management Strategies for Organic Orchard Crops** Dr. Gary Bender, Ph.D., Avocado & Citrus Farm Advisor – UCCE San Diego County
4:30	**Vendor booth presentations/ADJOURN!**

University of California
Agriculture and Natural Resources

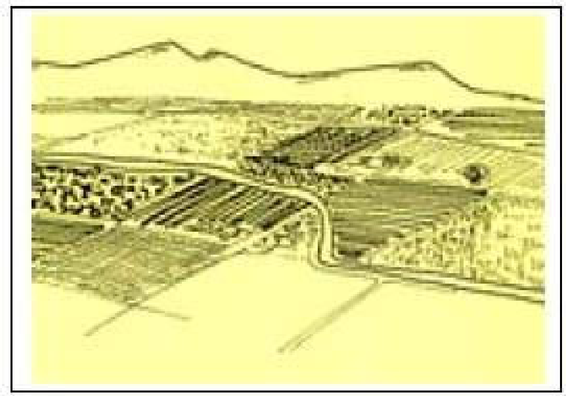
Crop Production Services

Ag Briefs – March, 2011

California Alfalfa Seed Production Symposium

March 9, 2011
UC West Side Research &
Extension Center
Five Points, California

March 10, 2011
UC Desert Research &
Extension Center
El Centro, California



University of California Cooperative Extension

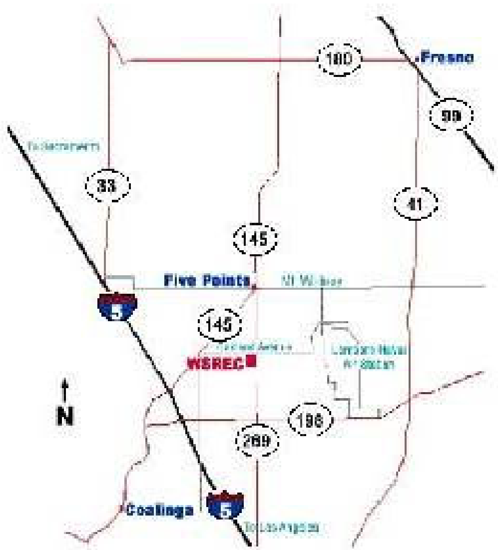
California Alfalfa Seed Production Research Board

Map and Directions to the UC West Side Research and Extension Center

Via I-5: South to Coalinga exit. Turn left onto SR145, proceed for about 5 miles. Make a sharp right turn (east) on Oakland Avenue; go about 6 miles.

Via Highway 99: South to Madera. Take 145 south to Five Points, go south on 269 (Lassen Avenue) 6 miles to Oakland Avenue.

Via I-5: north to SR269 (Huron exit). North on 269 about 20 miles to Oakland Avenue.

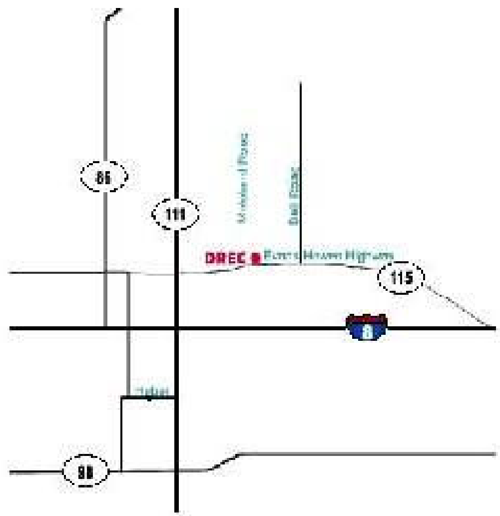


Our programs are open to all potential participants. Please contact the Fresno County UCCE office, two weeks prior to the meeting, at (559) 456-7261, if you have any barriers to participation requiring any special accommodations.

The University of California prohibits discrimination or harassment of any person on the basis of race, color, national origin, religion, sex, gender identity, pregnancy (including childbirth, and medical conditions related to pregnancy or childbirth), physical or mental disability, medical condition (cancer-related or genetic characteristics), ancestry, marital status, age, sexual orientation, citizenship, or status as a covered veteran (covered veterans are special disabled veterans, recently separated veterans, Vietnam era veterans, or any other veterans who served on active duty during a war or in a campaign or expedition for which a campaign badge has been authorized) in any of its programs or activities. University policy is intended to be consistent with the provisions of applicable State and Federal laws. Inquiries regarding the University's nondiscrimination policies may be directed to the Affirmative Action/Staff Personnel Services Director, University of California, Agriculture and Natural Resources, 300 Lakeside Drive, 6th Floor, Oakland, CA 94612-3550, (510) 987-0096

Map and Directions to the UC Desert Research and Extension Center

Located near the junction of Highway 80 (Evan Hewes Highway) and Meloland Road, 7 miles east of El Centro or 4 miles west of Holtville.



For additional information, contact either:
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531-D N. Alta Avenue
Dinuba, CA 93618
(559) 591-4792
Or
Shannon Mueller, UCCE
1720 S. Maple Avenue
Fresno, CA 93702
(559) 456-7261
scmueller@ucdavis.edu

California Alfalfa Seed Production Symposium

Wednesday, March 9, 2011 – UC West Side Research & Extension Center, Five Points, California
and
Thursday, March 10, 2011 – UC Desert Research & Extension Center, El Centro, California

REGISTRATION – 7:30 AM

8:00 **Welcome**
Kirk Rolfs, Chair, Alfalfa Seed Board

Moderators:
Shannon Mueller, UC Cooperative Extension, Fresno County and Eric Natwick, UC Cooperative Extension, Imperial County

8:15 **Alfalfa Seed Industry Update**
Kirk Rolfs,
Pioneer Hi-Bred International, Fresno CA

8:35 **Alfalfa Seed Industry Needs Assessment**
Shannon Mueller, Farm Advisor,
UC Cooperative Extension, Fresno CA

8:55 **How to Obtain Pesticide Registrations for the Alfalfa Seed Industry**
Anne Downs, Senior Registration Specialist, Wilbur-Ellis Company, Rio Linda, CA, and Betsy Peterson, CA Seed Association, Sacramento, CA

9:15 **Gene Flow Studies Enhanced by Tracking Pollinator Movement**
Shannon Mueller, Farm Advisor,
UC Cooperative Extension, Fresno CA

9:35 **The Alfalfa Seed Stewardship Program**
Robert Stewart, CA Crop Improvement Association, Davis, CA

9:55 **Spray Table Demonstration of Nozzles and Pressures**
Kurt Hembree, Farm Advisor,
UC Cooperative Extension, Fresno CA

10:15 **BREAK**

FIVE POINTS - LATE MORNING PROGRAM

10:30 **2010 Drip Irrigation Trial Results**
Shannon Mueller, Farm Advisor,
UC Cooperative Extension, Fresno CA

10:50 **Drip Irrigation System Considerations**
Larry Schwankl, Irrigation Specialist, LAWR, based at the Kearney Ag Center, Parlier CA

11:10 **IR Measurement of Stress as a Tool for Irrigation Scheduling**
Bob Hutmacher, UC Westside Research and Extension Center, Five Points CA

11:30 **An Integrated Approach to Controlling Pocket Gophers and Voles in Seed Alfalfa**
Roger Baldwin, IPM Wildlife Pest Management Advisor, Kearney Ag Center, Parlier CA

11:50 **Coexistence with Crop Isolation Mapping**
Kitty Schlosser, CA Crop Improvement Association, Davis, CA

12:10 **Chemical Company Updates**

12:30 **ADJOURN**

Lunch
Sponsored by Seed Services Inc.

RESEARCH COMMITTEE MEETING

EL CENTRO - LATE MORNING PROGRAM

10:30 **Lygus Bug Management in Alfalfa Grown for Seed**
Eric Natwick, Farm Advisor, UC Cooperative Extension, Imperial County

10:50 **2010 Drip Irrigation Trial Results**
Shannon Mueller, Farm Advisor,
UC Cooperative Extension, Fresno CA

11:10 **Alfalfa Leafcutting Bee Availability and Use in Alfalfa Seed Pollination**
Bob Wilson, Northstar Seeds Ltd.,
Neepawa, Manitoba, Canada

11:30 **Coexistence with Crop Isolation Mapping**
Kitty Schlosser, CA Crop Improvement Association, Davis, CA

11:50 **Chemical Company Updates**

12:10 **ADJOURN**

Lunch
Sponsored by Top Notch Seeds Inc.

ANNUAL SEED BOARD MEETING

PCA Continuing Education Credit Requested
CCA Continuing Education Credit Requested

CIMIS REPORT AND UC DROUGHT

MANAGEMENT PUBLICATIONS

Khaled Bali and Steve Burch*

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 March 1 to May 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, Ag. Water Science 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	March		April		May	
	1-15	15-31	1-15	16-30	1-15	16-31
Calipatria	0.18	0.22	0.26	0.29	0.32	0.36
El Centro (Seeley)	0.16	0.20	0.24	0.28	0.31	0.34
Holtville (Meloland)	0.17	0.21	0.25	0.28	0.32	0.35

* Ag. Water Science Unit, Imperial Irrigation District.

Link to UC Drought Management Publications

http://ucmanagedrought.ucdavis.edu/

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