

Rising Labor Costs

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more audits of workers' I-9 employment verification forms," Martin says. He notes that such audits often cause workers to quit their jobs rather than clear up discrepancies in their documents. As a result, some farm employers already are making plans to hire higher-paid, legal guest workers, who must be provided with government-approved housing.

He projects that immigration reform could result in legalization of currently unauthorized farmworkers, again encouraging farm employers to turn to the higher paid guest workers to tend and harvest their crops.

If labor costs do rise, Martin suggests that three major adjustments could occur: mechanization to reduce hand labor, an increase in produce imports if rising costs make U.S. produce less competitive, and introduction of more harvesting aids to increase the efficiency of laborers.

For example, there could be wider use of mechanized raisin harvesting, a shift to more imports in the asparagus industry, and the use of harvesting aids — such as in-field conveyor belts — to speed strawberry harvest.

Martin's study, conducted with Linda Calvin of the USDA was supported by USDA and the UC Giannini Foundation of Agricultural Economics. The report, "Labor Trajectories in California's Produce Industry," can be found at: <http://agecon.ucdavis.edu/extension/update/>

New Changes in Aluminum Phosphide Labels

Roger Baldwin, UC IPM Advisor

The California ground squirrel (*Spermophilus beecheyi*) and pocket gopher (*Thomomys* spp.) are widely considered to be the two most damaging wildlife pests in California agriculture. Numerous techniques are available for controlling ground squirrels and gophers including trapping, anticoagulant baits, acute toxicant baits, and burrow fumigants. Trapping can be an effective method to remove small to medium size populations of gophers and ground squirrels but often becomes too time consuming for large acreage. Both anticoagulant (e.g., diphacinone and chlorofacinone) and acute toxicant baits (e.g., zinc phosphide) can be quite effective at controlling ground squirrels when used appropriately. These rodenticides are less consistent but can still be effective when baiting for pocket gophers. Baiting is typically considered the cheapest and least time-consuming method for controlling both gophers and ground squirrels. However, there are potential concerns for non-target poisonings when using rodenticides which can limit their applicability in some situations.

Burrow fumigants, such as gas cartridges and aluminum phosphide, do not typically pose as great of a concern for non-target exposure as baits, and usually involve shorter application times than trapping. Aluminum phosphide is particularly effective at controlling gophers and ground

squirrels. Recent studies on ground squirrels and gophers indicated excellent control for both species (reduction in ground squirrel population = 97–100%; reduction in gopher population = 100%). Aluminum phosphide is a restricted use material; specific guidelines must be adhered to when using this material. Additionally, fumigation is generally only effective when soil is moist. Therefore, fumigation is restricted to late winter and spring or following irrigation. Nonetheless, aluminum phosphide fumigation is a very valuable part of an IPM program for controlling gophers and ground squirrels; its continued availability to growers is needed to maximize control efforts in many situations.

Unfortunately, recent changes in aluminum phosphide labels have been implemented due to the gross misuse of this product that led to the death two young girls in Utah. These changes include the following:

1. Use is strictly prohibited around all residential areas, including single and multi-family residential properties, nursing homes, schools (except athletic fields, where use may continue), day care facilities, and hospitals.

2. The products must only be used outdoors for the control of burrowing pests, and are for the use on agricultural areas, orchards, non-crop areas (such as pasture

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and rangeland), golf courses, athletic fields, parks, and other non-residential institutional or industrial sites.

3. Products must not be applied in a burrow system that is within 100 feet of a building that is or may be occupied by people or domestic animals. This buffer zone for treatment around non-residential buildings that could be occupied by people or animals has been increased from 15 to 100 feet.

4. When this product is used in athletic fields or parks, the applicator must post a sign at entrances to the treatment site containing the signal word DANGER/PELIGRO, skull and crossbones, the words: DO NOT ENTER/NO ENTRE, FIELD NOT FOR USE, the name and EPA registration number of the fumigant, and a 24-hour emergency response number. Signs may be removed 2 days after the final treatment.

5. When this product is used out of doors in a site frequented by people, other than an athletic field or park (such as agricultural fields), the applicator shall post a sign at the application site containing the signal word DANGER/PELIGRO, skull and crossbones, the name and EPA registration number of the fumigant, and a 24-hour emergency response number. Signs may be removed 2 days after the final treatment.

Because of these changes, I have developed a questionnaire

designed to develop accurate facts on various methods, including fumigation with aluminum phosphide, for controlling burrowing mammals in California. The information will be provided to registrants, the U.S. EPA, and others to help develop use policies, labels, etc. My primary objectives are to:

1. Identify the level of use of aluminum phosphide for various burrowing mammals in agricultural areas prior to the new aluminum phosphide label restrictions.

2. Identify how new aluminum phosphide label restrictions will alter use of a variety of control methods.

3. Identify the potential impact of the new aluminum phosphide label restrictions on burrowing mammal populations.

4. See if there is support to further increase safety for residents and other public bystanders by requiring a new Certified Applicator Category for use of aluminum phosphide fumigants for burrowing pest control IF such a category would ease restrictions set forth in the most recent aluminum phosphide labels.

The data collected should provide a much clearer picture of use patterns and importance of several methods, including aluminum phosphide, for controlling agricultural populations of burrowing pests in California. The survey can be accessed at the following web address:

Aluminum Phosphide Survey For Agricultural Users:
<http://ucanr.org/sites/AluminumPhosphideSurvey/files/73830.pdf>

Aluminum Phosphide Survey residential/urban/suburban settings:

<http://ucanr.org/sites/AluminumPhosphideSurvey/files/71411.pdf>

Two surveys are found at this website; one is for agricultural users, the other is for rodent control professionals who control burrowing mammals in urban/residential areas. Be sure you complete the appropriate survey. Once completed, the survey can either be: 1) saved and e-mailed to me, or 2) mailed to me via USPS. My e-mail address, mailing address, and phone number are provided at the end of this article. If you do not have internet access, give me a call or send a letter and I will mail a copy of the survey to you.

I must emphasize the importance of your participation in this survey if you use aluminum phosphide for burrowing mammal control. Data needs to be collected and subsequent results provided to the pertinent regulatory agencies to show the importance of aluminum phosphide for burrowing mammal control.

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Otherwise, there is a real possibility that we may completely lose aluminum phosphide for burrowing mammal control.

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4th Annual Viticultural Research Roadshow & Educational Wine Tasting Event

Bullfrog Bar & Grill, HWY 99
& Ave. 384, Kingsburg, CA

Thursday, June 30, 2011

1:00-5:00PM

Contact SJV WINEGROWERS
ASSOCIATION:
(559) 354-1409

Weed Day 2011 comes to UC Davis July 14

The latest developments in weed control will take center stage at UC Davis once again when scores of scientists, students, regulators and more gather July 14 for the 55th annual Weed Day.

"We look forward to another great turnout with a wide range of weed-control demonstrations," said Cooperative Extension Specialist Brad Hanson from the UC Davis Department of Plant Sciences, who is chairing this year's popular event. "Weed Day provides a great opportunity to see, first hand, weed research being conducted on campus and to find out what we are doing throughout the state."

Among the presentations will be weed control in fresh-market tomato, residual herbicides in almonds and walnut orchards, symptomology of herbicide drift in row crops, thermal soil disinfection research, weed-risk assessment for the horticulture industry and many more ongoing projects with other crops and non-crops. For a full agenda, [click here](#) or visit:

<http://wric.ucdavis.edu>.



Weed Day is held each July to give pest control advisors, farm advisors, chemical company cooperators, college faculty, students and regulatory officials the opportunity to learn more about current weed science research at UC Davis. The event begins at 7:30 a.m. with registration and a morning bus tour to the campus research fields to view demonstrations and research in terrestrial and aquatic weed control. Lunch and afternoon presentations will be held indoors and will wrap up by 4:30 p.m. Continuing education credits have been requested from the Department of Pesticide Regulation.

Cost is \$65 for those who register and pay before July 6 and \$90 for those register after that date. The cost for students with ID is \$20. Class size is limited so early enrollment is encouraged.

Registration is open:

[On-line registration](#) (credit card only)

[Print registration form](#) to fax or mail.

For more information contact Brad Hanson: (530) 752-8115 or bhanson@ucdavis.edu

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