



Department of Pesticide Regulation



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Director

MEMORANDUM

Arnold Schwarzenegger
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TO: Sue Edmiston, Agriculture Program Supervisor III
Worker Health and Safety Branch **HSM-04026**

FROM: Susan McCarthy, Program Specialist *(original signed by S. McCarthy)*
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445-6387

DATE: October 6, 2004

SUBJECT: SUMMARY OF 2000-2002 EARLY ENTRY EPISODES

In September of 2002, I completed HS-1833, Analysis of the Hazard Communication, Notification and Retaliation Requirements of the Worker Protection Standard and Recommendations for Improving California's Worker Protection Program. One of the recommendations in that report was that Worker Health and Safety (WHS) should evaluate Pesticide Information Surveillance Program (PISP) investigative reports involving early entry violations to ascertain the level of compliance with notification requirements. The following summary of the 2000-2002 early entry episodes is based on that recommendation.

There were ten episode reports involving 166 workers received by the California Pesticide Illness Surveillance Program in the years 2000 – 2002 in which health effects on fieldworkers were definitely or probably attributed to pesticide exposure incurred through entering treated fields improperly during restricted entry intervals. Since there are too few episodes to attempt a meaningful trends analysis, this memo provides a summary report on the episodes. Originally, I had also planned to report on compliance with hazard communication (display of PSIS A-9) and application-specific information display (ASID) requirements for the 2000-2002 episodes, since these areas were addressed in HS-1833. However, only three of the investigations reported on compliance with hazard communication requirements, and only four reported on compliance with ASID requirements.

There were five episodes in 2000, one in 2001, and four in 2002 (data not shown). The average number of episodes per year (3.3) is similar to that seen in HS-1833 (35 case reports in the nine-year period of 1991-1999, or 3.8 per year).

The attached table provides summary data for each episode, including crop, pesticide(s), number of workers, whether or not the workers were trained, compliance with posting and notification requirements, violations noted, and enforcement action(s).

Avocados, celery, lettuce, oranges, and tomatoes were the crops reported in one episode each. Grapes were the reported crop in three episodes, and greenhouse crops in two episodes. There were a total of 166 workers in these episodes. Of the 166 workers, 72 were asymptomatic, 94



reported symptoms consistent with pesticide exposure, and 71 sought medical treatment as a result of pesticide exposure.

In four of the episodes, the investigator did not report whether or not the fieldworkers had been trained. For the remaining six episodes, the fieldworkers in two episodes had been trained, and the fieldworkers either had not been trained or the person doing the training did not meet the requirements for a qualified trainer in four episodes.

Posting was required either by state regulation (two episodes) or by Monterey County ordinance (two episodes) in four episodes. In both episodes where posting was required by state regulation, the posting was in place. However, in one of these, the outside of the greenhouse doors were posted but the doors had been left open so workers did not see the signs, a violation of 3 CCR Section 6776(d). In one of the Monterey County episodes, the treated area was not posted, while the posting status of the other Monterey County episode is unknown. In an episode involving the two tractor drivers and four irrigators in a lettuce field, the workers saw the posted signs as they entered the field (both tractor driving and irrigation are activities allowed during an REI). However, the fieldworkers in this episode had not been informed of early entry provisions, nor were they wearing the label-required personal protective equipment (PPE) for early entry.

Had existing notification and posting regulations been followed, six of these ten episodes would not have occurred. In these six episodes, the results of the investigation revealed some type of notification violation – from lack of notification of the pesticide application to failure to notify workers of early entry provisions. Two of these episodes also involved posting violations. County agricultural commissioner's offices reacted strongly in almost all of the episodes. All but one of the episodes that resulted from a failure of notification resulted in the assessment of an agricultural civil penalty. In each of the four episodes out of the total ten where no agricultural civil penalty was assessed, only one worker per episode reported symptoms consistent with pesticide exposure. Overall, agricultural civil penalties, ranging from \$401.00 to \$12,827.00, were assessed in six of the ten episodes.

Despite the fact that only a small group of reports were reviewed for this report, there are two areas of improvement worth noting in incident investigation reports: the investigative reports furnished by the county agricultural commissioner's offices are more complete than those surveyed for HS-1833, and the data provided by the Enforcement database is more comprehensive than in the past.

Crop	Pesticide(s)	Task	Number of Workers	Trained	Compliance with Posting and Notification Requirements	Violations ¹	Enforcement Action ¹
Avocados	Sulfur	Harvesting	9 ² 9 ³ 1 ⁴	Unknown	<p>Posting not required.</p> <p>Both the operator of the property and his foreman were aware of the pending application but did not notify fieldworkers, nor did they remove the workers from the treated area after they became aware that the workers had been in the field during the application, and remained in the field during the REI.</p>	<p>Food and Agriculture Code (FAC) §12973 – use in conflict with labeling</p> <p>Title 3, California Code of Regulations CCR (3 CCR) §6618(b)(1)(A) – employer failed to give notice to employees prior to the application</p> <p>§6726(c) – employer did not ensure employees were taken to a physician</p> <p>§6761(c) – employer failed to notify employees of location and availability of any records</p> <p>§6761.1(a)(b) – employer did not display application-specific information</p> <p>§6762(b) – employer allowed employees to remain in area during the application</p> <p>§6764(a) – employer failed to assure that workers had been trained</p> <p>§6770(a) – employer allowed employees to remain in the treated area during the REI</p> <p><i>(continued on next page)</i></p>	<p>\$ 6,000</p> <p>250</p> <p>6,000</p> <p>275</p>

Crop	Pesticide(s)	Task	Number of Workers	Trained	Compliance with Posting and Notification Requirements	Violations ¹	Enforcement Action ¹
						§6771(a)(b)(f) ⁽⁵⁾ – employer failed to inform workers of early entry provisions, failed to provide required PPE, and failed to provide eyeflush water required for early entry activities	302 <hr/> \$12,827
Celery	Abamectin Chlorothalonil Petroleum oil Spinosad	Irrigator – opening and closing valves	1 1 1	Unknown	Posting not required Employee was notified of application but not given specifics about area being treated (incomplete notification).	3 CCR §6770(a) – employer shall not direct or allow any employee to enter or remain in a treated field before the restricted entry interval expires	\$ 401
Grapes	Sulfur	Tractor Driver	1 1 1	Unknown	Required by Monterey County Posting Ordinance – Posting status unknown Investigator could not determine if the tractor driver had been notified of the REI.	3 CCR §6766(c) – employer failed to assure that employee was transported to doctor immediately	None
Grapes	Sulfur	Train and sucker vines	21 21 21	No	Required by Monterey County Posting Ordinance - Not posted	FAC §12973 – use of a pesticide in conflict with labeling <i>(continued on next page)</i>	\$ 800

Crop	Pesticide(s)	Task	Number of Workers	Trained	Compliance with Posting and Notification Requirements	Violations ¹	Enforcement Action ¹
Grapes (cont.)					Assistant viticulturist forgot to tell foreman that the field had been treated. Foreman directed workers to the field without checking the board listing the treated fields.	§11503 – Monterey County Posting Ordinance 3 CCR §6618(b) – employer failed to provide notice prior to application §6764(a) – employer failed to assure that fieldworkers had been trained §6770(a) – employer allowed employees to enter before REI expired §6766(c) – employer did not ensure employees were taken to a physician	800 800 800 <u>800</u> \$3,200
Grapes	Methomyl Potassium bicarbonate Imidacloprid Sulfur Trifloxystrobin Adjuvant	Tip grape bunches	37 37 37	Trainer did not meet the requirements for being a certified trainer.	Posting not required Operator of the property failed to notify the labor contractor	FAC §12973 – use in conflict with labeling 3 CCR §6618(b) – employer failed to provide notice prior to application §6761(b) – employer failed to maintain required records §6761.1 – no display of application-specific information	\$1,000 1,000 400 400 1,483

Crop	Pesticide(s)	Task	Number of Workers	Trained	Compliance with Posting and Notification Requirements	Violations ¹	Enforcement Action ¹
						§6770(a) – employer allowed employees to enter and remain in a treated area during the REI	400 \$4,683 (Modified to \$3,633)
Greenhouse	Copper hydroxide Mancozeb	Unknown	7 1 1	Unknown	Greenhouse doors were posted, but the door was left open so the signs weren't visible. Supervisor was not notified of application or REI.	FAC §11701 – unlicensed pest control applicator 3 CCR §6618(b)(1) – employer failed to provide notice prior to application	Compliance Action
Greenhouse	Naled	Unknown	1 1 1	No	Posting not required The employee applied the pesticide and then re-entered the greenhouse the next day before the REI expired.	FAC §12973 – use in conflict with labeling 3 CCR §6724(b) – employer failed to ensure that handler received appropriate training §6726(c) – employer did not ensure employee was taken to a physician	None

Crop	Pesticide(s)	Task	Number of Workers	Trained	Compliance with Posting and Notification Requirements	Violations ¹	Enforcement Action ¹
Lettuce	Oxydemeton-Methyl	2 Tractor drivers and 4 Irrigators	6 6 6	Yes	Posted Fieldworkers saw the posting signs before entering the field (tractor driving and irrigating are allowed during an REI)	3 CCR §6766(c) – employer failed to ensure that employees were taken to the doctor §6770(e)(3) – employees were not wearing label required PPE for early entry §6771(a)(b)(h) – employer failed to inform workers of early entry provisions, failed to provide all required early entry PPE, and failed to provide a clean pesticide-free place for storing PPE	\$ 500 1,000 1,000 <u>1,000</u> \$3,500
Oranges	Mineral Oil Pyriproxyfen	Harvesting	82 16 1	FLC did not meet requirements for being a certified trainer.	Posting not required Operator of the property failed to notify the packing company.	FAC §12973 – use in conflict with labeling 3 CCR §6618(b) – employer failed to provide notice prior to an application	\$1,500 <u>1,000</u> \$2,500
Tomatoes	Endosulfan Methomyl Adjuvant	Irrigation	1 1 1	Yes	Posting not required Employee and supervisor interviewed two months after the incident and were unclear as to the details.	3 CCR §6770(a) – employer allowed employee to enter before REI expired	None

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¹ Enforcement Database

² Total Number of fieldworkers

³ Number of symptomatic fieldworkers

⁴ Number of fieldworkers who sought medical treatment

⁵ The Enforcement Tracking System Database lists this ACP as based on 3CCR §6734(a), however, that section covers eyewash requirements for *handlers*. Eyewash requirements for early entry workers, other than handlers, are in 3 CCR 6771(f).