



Mary-Ann Warmerdam  
Director

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Governor

**DEPARTMENT OF PESTICIDE REGULATION  
PESTICIDE REGISTRATION AND EVALUATION COMMITTEE  
Meeting Minutes – May 20, 2010**

**Committee Members/Alternates in Attendance:**

Syed Ali, State Water Resources Control Board  
Lynn Baker, Air Resources Board (ARB)  
Anna Fan, Office of Environmental Health Hazard Assessment (OEHHA)  
Martha Harnly, Department of Public Health (DPH)  
Scott Hudson, San Joaquin County Agricultural Commissioner  
David Luscher, Department of Food and Agriculture  
Stella McMillin, Department of Fish and Game (DFG)  
Jodi Pontureri, State Water Resources Control Board (SWRCB)  
Ann Prichard, Department of Pesticide Regulation (DPR)  
Rebecca Sisco, University of California, IR-4 Program  
Patti Tenbrook, U.S. Environmental Protection Agency, Region 9  
Barry Wilson, University of California, Department of Environmental Toxicology

**Visitors in Attendance:**

Denise Alder, DPR  
Angela Csondes, ARB  
Billy Gaither, Pest Control Operators of California  
Amy Duran, DPR  
Anne Katten, California Legal Rural Assistance Foundation  
Susan Kegley, Pesticide Research Institute  
Jeanne Martin, DPR  
Linda O'Connell, DPR  
Mark Robertson, DPR  
Jay Shreider, DPR  
Marylou Verder-Carlos, DPR  
Jim Wells, Environmental Solutions Group, LLC  
Pam Wofford, DPR

**1. Introductions and Committee Business – Ann Prichard, Acting Chairperson, DPR**

- a. About 13 people attended the meeting.
- b. No correction to the minutes of the previous meeting held on March 18, 2010, was identified.



**2. MITC Mitigation – Linda O’Connell, DPR**

Linda O'Connell discussed mitigation measures for soil fumigation uses of metam sodium, metam potassium and dazomet. The mitigation measures cover all application methods for these pesticides and focus on application timing, post-application water treatments, and buffer zones. The mitigation measures will be sent out as an Enforcement/Worker Health and Safety County Agricultural Commissioner Letter, probably in mid-July. Because the mitigation will have some overlap with U.S. EPA's fumigant labeling changes, DPR and U.S. EPA are developing joint training for CAC staff to discuss how to implement the requirements.

**3. Air Monitoring Network – Randy Segawa, DPR**

DPR described its final decisions on the three key planning issues for the air monitoring network. For the sampling plan, DPR will monitor a single location in each community selected, collecting a single 24-hour sample each week. DPR selected 27-32 pesticides for monitoring. The method DPR used for its Parlier project includes 21 pesticides that will be monitored for the air network. The lab is working to add up to five additional pesticides to this method. Four pesticides will be included in the volatile organic compound method. Chloropicrin and methyl isothiocyanate will be monitored as single samples. Assuming suitable monitoring locations can be established, DPR will monitor in Ripon (San Joaquin County), Salinas (Monterey County), and Shafter (Kern County). DPR will monitor each community for at least two years. At the end of two years, DPR will evaluate the data and consider moving to other communities. DPR will prepare a more detailed monitoring protocol, including all sampling and analytical methods. The PREC will review the protocol this summer. DPR plans to begin sampling in January 2011.

**4. CHAMACOS Study – Community/University Partnership to Assess and Prevent Environmental Exposures to Pesticides – Dr. Asa Bradman, UC Berkeley**

Center for the Health Assessment of Mothers and Children of Salinas (CHAMACOS) is one of the 11 Centers for Children’s Environmental Health Research currently funded by National Institute of Environmental Health Sciences and U.S. Environmental Protection Agency. Dr. Asa Bradman presented findings from research funded by these agencies.

The objectives of the study was to (1) estimate sources, pathways and levels of *in utero* and postnatal environmental exposures of children living in an agricultural community; (2) determine the relationship of environmental exposure and neurodevelopment, growth, respiratory disease; (3) understand the mechanism of effect; and, (4) reduce exposures to children. The pesticides investigated were organophosphates, organochlorines, carbamates, pyrethroids, manganese ethylene bisdithiocarbamates (EBDCs) fungicides – Maneb/Macozeb. To determine pesticide exposure, the

investigators used five techniques, dust sample collection, home inspections, personal interviews, pesticide use reports, and biomarkers of pesticide exposure (urine, blood and breast milk).

Characteristics of CHAMACOS mothers (sample size of 601) participating in the studies are 92 percent are Spanish-speaking, 85 percent are born in Mexico, 54 percent spent five years or less in the United States, 96 percent are living within 200 percent of poverty, 44 percent have a sixth grade education or less, 44 percent worked in agriculture during pregnancy, and 84 percent have other agricultural workers in the home.

To reduce pesticide exposures to children, CHAMACOS funded a technical intervention study looking at 130 farm workers to look at warm water and soap for hand washing, coveralls (shirts), routine laundering, gloves, and field based education. The intervention group developed a method for providing warm water in the field. They trained crew leaders to use this system in which the crew leaders filled the tanks. The intervention group developed and provided lightweight coveralls to the farm workers involved in the study. At work, there was a designated drop-off and pick-up and laundering of these coveralls. The intervention group gave gloves to crew leaders and ponchadoras to hand out to field workers. And finally, the intervention group held five field-based education classes. The control group (at the end of the study) consisted of coveralls (shirts), gloves, and worker protection statements training.

The intervention study was evaluated through KAB Questionnaires, worker urine samples, hand wash sampling, leaf sampling, and clothing patch sampling. Non-participant observations, focus groups and interviews were also completed. Pesticide information obtained from the questionnaires was 42 percent reported never receiving pesticide safety training; 52 percent did not know when pesticides were applied at their farm; 92 percent did not know the names of any pesticides used at work; and, 62 percent worry that pesticides could hurt their family's health. Wearing gloves reduced malathion loading on hand and removing clothing reduces potential take home exposure.

The CHAMACOS studies are shared a community forum for the participants and their families. Letters and health education materials were also provided to an additional 500 participants. Over 9,000 community members have attended CHAMACOS presentations and educational opportunities.

Dr. Bradman provided numerous statistical slides from published and unpublished studies. Please refer to the CHAMACOS Web site at <http://ehs.sph.berkeley.edu/chamacos/english/pages/Findings.php#cohort> for further information.

5. **Public Comment**

None received.

6. **Agenda Items for Next Meeting**

Syed Ali suggested a discussion on the proposed decision to register Methyl Iodide and the Bay Area endangered species pesticide injunction.

The next meeting will be held on Thursday, July 15, 2010, in the Sierra Hearing Room on the second floor of the Cal/EPA building, located at 1001 I Street, Sacramento, California.

7. **Adjourn**