



AgHealth News

From the Western Center for
Agricultural Health and Safety

Spring 2009, Vol. 18, No. 2

University of California, Davis

Farm worker families learn about children's health and safety

The Western Center for Agricultural Health and Safety (WCAHS) co-sponsored a Children's Health and Safety workshop in the city of San Joaquin in March for Central Valley farm workers and their families. More than 40 farm worker parents—some of whom brought their small children—came from as far away as Stockton to participate in a day-long workshop on pesticide safety, heat illness prevention and farm safety for children.

Participants arrived at the Community Center around 9 a.m. to visit with one another and have breakfast before the educational sessions began. At 9:30, Julia Hernandez, Proteus' manager of the Poder Popular Program, welcomed participants and introduced the presenters. The first educational session was conducted by Martha Sanchez, an environmental research scientist with the Department of Pesticide Regulation. Sanchez talked about identifying products people use commonly in their households and how to protect children from exposure to these hazardous substances. She also talked about what parents could do to protect themselves and their families after working areas in which pesticides had been used.

The second session, focusing on heat hazards, was conducted by Teresa Andrews, WCAHS' education and outreach specialist. She



WCAHS accepting nominations for second annual outstanding achievement award

WCAHS is accepting nominations for its 2nd Annual Outstanding Achievement in Farm Health & Safety Recognition Award. This award honors an individual, a group, organization, association or business/industry that consistently strives to reduce agricultural workplace injuries and improve overall health in the agricultural workplace.

The award is designed to recognize outstanding achievement toward agricultural health and safety standards and practices, innovative leadership, achievement, support and/or meritorious service exemplifying the WCAHS overarching goals of reducing agricultural injury and illness in our Western states. Please share this information with friends and colleagues. Nominees could be recognized for:

- noteworthy advancement of new agricultural health and safety practices;

(see **Safety for Kids** on page 3)

(see **Award**, bottom of page 3)

H1N1 (Swine) flu, farm work and migration

By Marc Schenker, M.D., MPH

The recent H1N1 flu epidemic has focused attention on the interconnectedness of many issues we often consider in isolation; in this case the relationship of influenza, farm worker health and migration. This was made clear to me by one of the first calls I received as a UC Davis expert on influenza. The call was from an editor of *Perishable Pundit*, a produce magazine, regarding a question from its readers about the safety (or lack of) of fruits and vegetables that had been handled by Mexican farm workers. (www.perishablepundit.com/index.php?date=05/12/09&pundit=4). I assured the editor that fruits and vegetables handled by migrant farm workers were safe to eat. However, this raised another concern – that our farm worker health is directly related to the safety of the food we eat. Additionally, our lack of a coherent immigration policy diminishes the effectiveness of our public health departments in protecting the health of everyone in this country. Another concern is disease transmission from the foods we eat, a subject that has recently been in the news because of *salmonella* and *E. Coli* transmitted in food.

One known case of the H1N1 flu affecting farm animals resulted from a farm worker in Canada disseminating the disease to a domestic herd of swine. Regardless of the direction of disease transmission, the recent epidemic has resulted in significant decreases in the swine industry in North America, which translates into decreased work for farm workers employed in that industry.

In summary, the health of our immigrant farm workers, the implications of their migration from Latin America and the potential transmission of disease from workers to our food, to our tables are all shown to be inter-related by the recent H1N1 epidemic and the questions it raised.

Not all questions of farm worker health and food safety can be easily answered. Tuberculosis among farm workers handling milk (and in the dairy cows) is a very real issue, and one that deserves serious attention by public health officials. Gastrointestinal infections (bacterial and parasitic) are serious conditions. Can farm workers be a reservoir or intermediary in the infectious chain for pathogens such as *salmonella*?

These issues were again in the spotlight as the state and counties recently discussed reducing health care for undocumented migrants in this country. Do we really want to decide if we will treat a migrant farm worker, based on his or her immigration status? It is difficult enough to control the spreading influenza virus, but being told who can be seen in a medical care facility makes no sense and interferes with good public health and medical practice. This becomes a particularly critical issue

with tuberculosis, for which failure of adequate screening can result in dissemination from a single-source case in a dairy. In addition, treatment of tuberculosis requires nine continuous months of medical therapy. How do we guarantee that a farm worker will receive nine continuous months of therapy, thus reducing the likelihood of a drug-resistant strain of tuberculosis developing?

The tightening of the border between Mexico and the United States may have made this situation worse. None of these diseases care about borders, and that is how we should handle individuals who are potentially infected, or who could disseminate the diseases. Medical care should be provided with “no questions asked.” This is the best public health policy, and it is also consistent with the universal declaration of human rights.



WCAHS Associate Director Kent Pinkerton congratulates UC Davis Law School Dean Kevin R. Johnson for his excellent presentation on March 2, titled, “Immigration.” Johnson is a recognized authority on immigration issues. He worked with the Obama Campaign on this politically and legally complex issue. His latest book is titled *Opening the Floodgates: Why America Needs to Rethink its Borders and Immigration Laws*. Seeking to re-imagine the meaning and significance of international borders, Johnson’s presentation and book approaches the issue of comprehensive immigration reform with undisputed facts that lend themselves to open debate beyond that currently taking place. Johnson’s entire presentation can be seen via webcast at: http://agcenter.ucdavis.edu/seminar/webcast_2009.php.

Safety for Kids *from page 1*

discussed with participants how heat illness can be a matter of life and death, how to prevent over-exposure, how to recognize the signs and what to do when someone is already affected by heat illnesses.

After lunch, Shari Burgus, education director of Farm Safety 4 Just Kids, described her organization, as well as rural environmental risks and parents' and children's roles in injury prevention. This session received the highest reviews in the evaluations.



Farm workers participated in a day-long workshop in March concerning pesticide safety, heat illness prevention and farm safety for children.

At the end of the workshop, participants discussed the importance of receiving this kind of information and expressed appreciation for hearing it in Spanish, a language used by a large number of farm workers in California. WCAHS plans to keep seeking partnerships to organize more events like this one.

This successful event was possible thanks to the support of the following organizations:

- Farm Safety 4 Just Kids (FS4JK) – FS4JK is an Urbandale, Iowa-based nonprofit organization whose main goal is to increase public awareness and understanding of the hazards to children on the farm. FS4JK provided incentives for the participants: \$500 in Wal-Mart gift cards, water bottles, T-shirts, stickers, coloring books and pencils
- Proteus Inc., Poder Popular Program – Proteus Inc. is a non-profit, community-based organization specializing in employment, training, education and community service. The Poder Popular Program is a grassroots leadership development program. Staff and volunteers of the program were instrumental in obtaining the training site at no-cost, and sponsored breakfast and lunch for all participants.
- Department of Pesticide Regulation, California Environmental Protection Agency, assisted with recruitment efforts and conducted one of the sessions.



Award *from page 1*

- development and/or implementation of model farm safety programs that reduce injury and illness;
- a program of continuing education/enforcement of safe farming practices;
- rewarding innovative approaches to ensuring farm safety;
- exceptional involvement in promoting safe farming practices – not only on the farm, but within communities;
- demonstrated forward thinking into improvements in overall agricultural health, including sustainable farming techniques.

Please visit the WCAHS Web site at <http://agcenter.ucdavis.edu/> for additional information and to download the nomination form. Nominations are due July 15, 2009; WCAHS Director Marc Schenker or Center Manager Sandy Freeland are available for questions at (530) 752-4050 or agcenter@ucdavis.edu.



Last year, honorable mention was awarded to Silverado Farm Company. Partners Pete Richmond, Arnulfo Solario and Stan Zervas (above) accepted the award.

Heat-related illness in agriculture on WCAHS' agenda for 2009

Heat-related illness (HRI) is a serious medical condition that results when the body is unable to cool itself by sweating. Avoiding heat-related illness and disabling or even fatal heat stroke is a daunting challenge facing growers, farm workers and regulators each year as the summer months approach. HRI comprises a broad range of symptoms, from cramps, edema, nausea, headache, rapid heartbeat, to coma and death. More needs to be done to prevent, recognize and treat symptoms in the field.

The problem is complex and in need of multifaceted solutions. The issues include: lack of acclimatization to the heat; lack of shade, and time to rest; lack of water; lack of bathroom facilities; lack of understanding of the effects of heat exposure; and economics. Workers don't want to lose precious time picking, thinking that they really are "just fine," and farmers say they can't afford elaborate shade structures or misting devices.

In spite of the novel 2006 Cal/OSHA regulations, heat-related documented deaths and injuries stunned the state last year. Investigators estimate that hundreds more unreported incidents occur each year. Cal/OHSA Chief Len Welsh states, "I believe that inadequate hydration, i.e., not drinking enough water, is the single greatest contributor to the problem, and it would be helpful to study how the drinking of water can be

increased by factors such as placement of water, water quality, other factors that could induce more drinking of it while employees are working, and changing behavior so that those who need to drink water more appreciate the need to do so."

The latest regulation, adopted earlier this year, aims to protect agricultural workers by requiring growers to provide access to shade when temperatures are forecast to rise above 85 degrees. Providing clarification often lost in the media, Welsh says, "The 85-degree trigger does not apply to the requirements of the standard – it only applies to how the requirement to provide access to shade can be met. When the temperature is above 85, the employer must have shade actually up while employees are working so that they can access it any time they want to without having to take any action other than walking over to it. Employees must always be provided access to shade, and the employer must meet all the other requirements of the standard – no matter what the temperature is. At 85 and below, the employer can meet the shade requirement by having shade available to be put up promptly on request, as opposed to having it actually up."

The Division of Occupational Safety and Health's Heat Illness Prevention Program has made information available in English and Spanish on its Web site at <http://www.dir.ca.gov/dosh/HeatIllnessInfo.html>, which includes links for heat illness training materials. Regulators are hoping that the 85-degree trigger, in addition to adequate hydration will save lives, and they have embarked on a statewide education campaign about safety.

Considering the physiology of HRI and advances made within the military and with athletes, Dr. Marc Schenker has been working on new multidisciplinary approaches to reducing heat-related illnesses and deaths in agriculture and is pursuing funding from several sources including the NIH Challenge Grant.

"Our goal to find effective solutions to the persistence of heat-related illness requires diverse approaches to understanding its causes and developing effective, acceptable interventions," says Dr. Schenker. He further states, "We hope to expand our knowledge of the physiologic, epidemiologic, economic, political, cultural and social forces surrounding the issue, within a multidisciplinary team. Together with researchers from biological and agricultural engineering, textiles and clothing, and exercise science, we plan to examine the components that contribute to HRI in agriculture. The need is urgent, as excessive heat events are expected to increase with global warming."



Mike Luthi from Media Works captures May 4th seminar presenter Ron Stochlic as he is introduced by WCAHS Director Marc Schenker. Ron, executive director of the California Institute for Rural Studies, presented surprising new trends in his seminar titled, "Sustainable Food and the Promise of Improved Farm Worker Conditions." This presentation, along with seminar series presentations for 2006-07, 2007-08, and the current year are available at: http://agcenter.ucdavis.edu/seminar/webcast_2009.php



Three WCAHS researchers receive distinguished awards

Three WCAHS investigators received awards from the University of California for teaching, research and public service.

Schenker earns Distinguished Scholarly Public Service Award

Center Director **Marc Schenker**, M.D., MPH, is a professor of public health science, and the Center for Occupational and Environmental Health, and a practicing physician in occupational and pulmonary medicine. Colleagues noted that he is an articulate advocate for better health care for migratory farm workers and their families in California's Central Valley, and has taken a leadership role in working for improved occupational health training internationally, especially in developing countries.



Hammock wins Distinguished Teaching Award: Graduate and Professional

Bruce Hammock is a professor of entomology and environmental toxicology, and at the MIND Institute. His nominators described him as "first and foremost a talented scientist" who creates a "lab culture" and "research environment" thoughtfully designed to train and mentor students. His colleagues noted that, as a result of his tireless commitment, his students emerge "as top-notch independent scientists, skilled at conducting and communicating collaborative, integrated research." In addition, Hammock, who is an elected member of the National Academy of Sciences, has developed two federally funded training programs and, during his more than 30 years at UC Davis, has mentored hundreds of students and professional researchers. Hammock is PI for WCAHS Project 4, titled, "Rapid Assays for Human and Environmental Exposure assessment."

UC honors Mitloehner for air quality research

UC Davis Cooperative Extension air quality specialist **Frank Mitloehner** was honored by UC Division of Agriculture and Natural Resources for his air quality research. Mitloehner is one of five UCCE academics to be awarded the 2009 Distinguished Service Award. The awards recognize and reward outstanding accomplishments by UC Cooperative Extension academics in five areas – new professional, extension, research, leadership and teamwork. Some of his research studies concern air quality in the San Joaquin Valley, which ranks as the worst in the country. Affectionately called "Dr. Dairy Air" by his students, Mitloehner has developed new ways to measure airborne pollutants and methods to measure the impact of cattle on air pollution. At the invitation of the Office of the Chief Economist in the White House and the USDA, Mitloehner serves on a federal advisory committee on climate change. He also serves on WCAHS Steering Committee and is PI of a Center project titled, "Respiratory Exposures on Large California Dairies."



At the conclusion of his April 6th presentation, Dr. Asa Bradman, director of the Center for Children's Environmental Health Research in UC Berkeley, talks with (from left) Dr. Deborah Bennett, Martha Sanchez and Louise Mehler from the California Department of Pesticide Regulations. Dr. Bradman's CHAMACOS study in the Salinas Valley estimated sources, pathways and levels of in utero and postnatal exposures of children living in a agricultural community. His entire presentation, titled, "A Community/University Partnership to Assess Environmental Exposures and Their Health Effects on Young Children," is available at : http://agcenter.ucdavis.edu/seminar/webcast_2009.php





**Western Center
for Agricultural
Health and Safety**

One Shields Avenue
Davis, CA 95616-8757
AG10

Are You a Subscriber?

Have puzzling questions about occupational hazards in agriculture? Wondering about resources for teaching pesticide safety? Interested in Spanish-language resources for agricultural health and safety training? Then subscribe to our list server by visiting our Web site at <http://agcenter.ucdavis.edu>, and click on “AgHealth E-mail List.”

AgHealth News is published quarterly by the Western Center for Agricultural Health and Safety, University of California, Davis CA 95616-8757; phone (530) 752-4050; FAX 752-5047; e-mail: agcenter@ucdavis.edu
<http://agcenter.ucdavis.edu>

Director.....Marc Schenker
Assoc. Director.....Kent Pinkerton
Director of Education.....Stephen McCurdy
Education/Outreach Specialist.....Teresa Andrews
Manager/Editor.....Sandra Freeland
Produced by.....EditPros, Davis

Calendar

May 28

Safer Alternatives to Pest Control in Agriculture, UC Davis ARC Ballroom B. For more information: <http://agcenter.ucdavis.edu>

May 30

Occupational and Environmental Medicine Symposium, UC DMC Education Building, 4610 X Street, Sacramento. For more information: <http://cme.ucdavis.edu>

June 1-2

Green Acres, Blue Skies II: Working Towards Common Solutions, Activities & Recreation Center (ARC) UC Davis. Sponsored by the UC Davis AQRC and the California Air Resource Board, Dr. Frank Mitloehner is program chair. For more information, contact Donna Reid, AQRC, at (530) 754-8374, or dvreid@ucdavis.edu.

September 18

WCAHS 2nd Annual Outstanding Achievement in Farm Health and Safety Recognition Award reception, RJ Phillips Winery (see story on page 1)

The 2009 WCAHS seminar series is available via video webcast at http://agcenter.ucdavis.edu/seminar/webcast_2009.php