2011 PPT Stakeholders Meeting: Agricultural Sector

Kim Faulkner, PhD, MPH
Agriculture, Forestry and Fishing

- 2.2 million workers
  (1.8 million in agriculture)
Agriculture, Forestry, Fishing Sector Council:
External Membership

• Employers and their advocates
  • Example: National Pork Board
• Family and worker advocates
  • Example: Association of Farmworker Opportunity Programs
• Educational and research institutions
  • Example: The Penn State University
• Health, safety, and injury compensation institutions
  • Example: Workers Compensation Utah
• Manufacturers of the sector’s equipment
  • Example: Association of Equipment Manufacturers
Selected occupations with high fatal injury rates, 2009*

- Fishers and related fishing workers: 200.0, 56
- Logging workers: 61.8, 34
- Aircraft pilots and flight engineers: 57.1, 63
- Farmers and ranchers: 58.5, 293
- Roofers: 34.7, 60
- Structural iron and steel workers: 30.3, 18
- Refuse and recyclable material collectors: 25.2, 19
- Industrial machinery installation, repair, and maintenance workers: 18.5, 81
- Driver/sales workers and truck drivers: 18.3, 224
- Construction laborers: 18.3, 586

Total fatal work injuries = 4,340
All worker fatal injury rate = 3.3

Fatal work injury rate (per 100,000 full-time equivalent workers)
Number of fatal work injuries

Fatal work injury rates were highest for fishers, logging workers, and aircraft pilots and flight engineers in 2009.

*Data for 2009 are preliminary.
Agriculture, Forestry, Fishing

Injuries:
• Tractor-related
• Animal-related
• Musculoskeletal
• Falls
• Hearing loss

Illnesses:
• Respiratory
• Dermal
• Digestive
• Neural
• Thyroid dysfunction
• Cancer
• Reproductive effects
• Pesticide poisonings
2011 Projects with Personal Protective Technology

1. Agricultural Health Study: Pesticide Exposure Among Farmer Applicators
2. Vibration-Induced Injuries: Biodynamics and Diagnoses
3. PPT Surveillance Planning
4. PPT Surveillance in Agricultural Pesticide Handlers (K. Faulkner)
5. Physiological Models and Countermeasures
6. Mechanistically-Based In Silico Estimation of Dermal Absorption in the Workplace
7. National Children's Center for Rural and Agricultural Health and Safety
NIOSH National Pesticide Personal Protective Equipment Use Surveillance and Intervention Program
Relevant Personal Protective Technology (PPT) Goals:

1. Inhalation -- Respirator use
2. Dermal -- Chemical barrier protective clothing
3. Broad-Based PPT Issues -- Surveillance
Understanding Personal Protective Equipment (PPE) Concerns
Addressing PPE Concerns

Personal Protective Equipment (PPE)

1. Lack of Knowledge
2. Limited Access
3. Lack of Acceptance
A Safety Roadmap for Agricultural Pesticide Handlers

Overcoming Barriers to Optimal Personal Protective Equipment (PPE) Use
Teamwork and Expert Panel

- Pesticide handlers
- Employers and Supervisors
- Educators & Other Safety Professionals
- Regulators
- PPE Manufacturers and Suppliers
- Pesticide Manufacturers and Suppliers
Breakout Session 1: Incorrect PPE

• Address root causes of
  – Lack of knowledge
  – Limited access
  – Lack of acceptance
Training and Demo Session

1. Cross-contamination and PPE failure- *Kit Galvin*

2. Chemical breakthrough demonstration- *Jim Zeigler*

3. Clothing display- *Anugrah Shaw*

4. Respirator display- *Jay Parker*

5. Respirator fit testing- *Jeff Birkner*

Personal Protective Equipment (PPE)
Poster Session

1. Comparison of Workplace Protection Factors for Different Aerosol Contaminants on Agricultural Farms
2. The Impact of a Rural Based Personal Protective Equipment Program
3. Updates to the NIOSH National Pesticide PPE Surveillance and Intervention Program
4. Listening to the Experts on Personal Protective Equipment: Orchard managers, pesticide handlers, and pesticide safety educators and agriculture safety specialists on PPE barriers and solutions in the tree fruit industry
5. A Partnership for Pesticide Exposure Reduction through PPE Outreach and Education
6. Weak Label Requirements and Inadequate Protective Gear Put Workers at Risk
7. Prevalence of respirator/dust mask use among U.S. primary farm operators: Analysis of the 2006 farm and ranch survey
Breakout Session 2: Wear, store, inspect and decontaminate PPE improperly

1. For one aspect of improper use...

Address root causes of

- Lack of knowledge
- Lack of acceptance

2. Question and Answer Session -- 30 minutes

Personal Protective Equipment (PPE)
Your Opinion Matters!
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<td>Cho, Kyungmin Jacob / University of Cincinnati</td>
<td>Comparison of Workplace Protection Factors for Different Aerosol Contaminants on Agricultural Farms</td>
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<td>Conners, Maureen / NE Center for Agricultural Health</td>
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<td>Palmánde, Pablo / Pacific NW Agricultural Safety and Health Center, University of WA</td>
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<td>Syamlal, Girija / NIOSH DRDS SB</td>
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<td>Richards, Kerry / Pennsylvania State University Pesticide Education Program</td>
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<td>Ruiz, Virginia / Farmworker Justice</td>
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Quality Partnerships Enhance Worker Safety & Health

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Thank you