

Workshop: Establishing a Research and Outreach Agenda to Integrate Safety and Health into the Sustainable Agricultural Workplace

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I. Goal

The aim of the workshop was to start developing a research agenda on worker health and safety within sustainable agriculture.

II. Method

To best draw on the collective brainpower of the participants in initiating this process, the conference attendees were divided into five groups and asked to:

- Identify worker health and safety issues in sustainable agriculture.
- Choose the top three issues.
- Define the best strategy to address the top three issues (e.g., by research, interventions, or education).
- Name the partners who should implement the strategy.
- Set the timeline for implementation of the strategy.
- List the resources required to implement the strategy.

Each group was assigned a facilitator and scribe to record the group's discussions and conclusions. Below we summarize the major findings, while the specifics are in Tables 1-6.

III. The Issues: Worker Health and Safety in Sustainable Agriculture

The groups felt the issues they identified were not unique to sustainable agriculture; rather, they also are issues common to conventional farming. Only 21% of the identified issues could be classified as sustainable agriculture specific (Table 1). As one group said, "because sustainable agriculture is not a locally common practice, it is hard to attack these specific worker health and safety questions."

The issues that do fall under the rubric of sustainable agriculture include the worker health and safety implications of the labor-intensive nature of sustainable agriculture, increased mechanization, pesticide alternatives, and other new technologies. One group felt there is a need for quantitative data to promote sustainable agriculture. Also mentioned is the need to proactively define worker health and safety within this practice.

Another cluster of issues that came out of the groups concerned specific worker health problems (16%) such as heat stress, mental stress, depression, disability, chronic illnesses, ergonomic problems, and the lack of health insurance. Although not unique to sustainable agriculture, the groups gave equal attention to both legal/regulatory (12%) and employer-employee issues (12%), likely because social equity is one of three pillars to sustainable agriculture. A related topic was culture, with its implications on training workers.

IV. Top Issues with Strategies, Partners, Timelines, and Resources.

Because worker health and safety within sustainable agriculture is a relatively new concept, most of the groups focused on defining the issues and strategies. Only a few groups specified the partners, timelines, and resources. The results of each group discussion are summarized in Tables 2-6.

A few themes emerged from the more detailed discussions within the groups. In all of the groups, equity as a worker health and safety issue figured prominently. The strategies to address worker inequity included fair wages, empowering workers through employer-employee collaborative relationships, unionization, and immigration reform.

Another prominent theme was defining the difference between sustainable and conventional agriculture as it applies to worker health and safety. And with this is the need for more quantitative data on the issue.

Finally, were a few health-specific themes related to increased labor and mechanization in sustainable agriculture. Mechanical versus education interventions to improve worker health and safety was stressed as the strategy of choice. The focus should be to engineer out the risks of injuries and ergonomic solutions to musculo-skeletal problems. Another health-specific area not limited to sustainable agriculture is that of worker emotional stress and other mental health issues. Two groups felt this should be an area of increased research and full-scale education.

V. Conclusion

Answering all the questions we asked for each issue raised was an overly ambitious aim for the workshop, especially given the newness of the topic to several participants and the limited time for discussion. Furthermore, most of the issues that came out of the groups were not unique to sustainable agriculture. This workshop, however, succeeded in its larger goal of starting to develop a sustainable agriculture research and intervention agenda. The focus on worker equity that emerged from all workshop groups can only improve longstanding and newer health and safety problems found in conventional agriculture.

Table I. Worker Health and Safety Issues in Sustainable Agriculture

ISSUE	#	%
Sustainable Agriculture Specific	12	21%
• Pro-active definitions of worker health and safety should be part of sustainable agriculture		
• Sustainable ag is not prevalent here – hard to attack these questions		
• Ensure pesticide alternatives are safe		
• Sustainable vs. conventional ag – what is the difference?		
• No infrastructure for worker safety and health in some places = non-sustainable ag		
• Labor intensive		
• Dangerous equipment		
• Update work practices to meet technology		
• Potential new hazards, new technology		
• Equipment related injuries (tractors, etc.)		
• Tractor safety issues		
• Need for quantitative data to promote sustainable ag vs. conventional practices		
Health Specific		
• Heat stress	9	16%
• Emotional stress		
• Disability and depression		
• Chronic illnesses		
• Baseline health		
• Lack of health insurance		
• Mental health		
• Stooped/awkward postures		
• Problems of worker health and safety are not recognized		
Legal/Regulatory	7	12%
• Migration		
• Legalization of farm workers (work permit, documentation, etc.)		
• Migration/free trade/legal issues		
• Academic, growers, investors need to send messages that the current rules and regulations set up a system that doesn't work, is not sustainable, etc.		
• Smaller/family farms laws and regulations		
• Enforcement		
• “Don't tread on me” attitudes of organic growers		

Equity Issues/Employer - Employee Relations	7	12%
• Employers need to value workers more highly (promote models already in place)		
• Relationship between management and workers		
• Empowering employees and respect		
• Management buy-in		
• Closing the gap between workers & employers (making sure they are on the same page and understand each other)		
• Vulnerability of workers		
• Communication between employers and employees		
Cultural Issues	6	11%
• Use Latino channels that they brought with them (churches, etc.)		
• Language and culture must be appropriately translated (culture training, employer training)		
• Racial and ethnographic issues		
• Cultural barriers		
Worker Family/Social Issues	4	7%
• Worker's family – take home exposure, drift		
• Health and safety resources for workers and families		
• Livable housing for workers – clean and healthy environment		
• Building a social network		
Worker Wages	4	7%
• Wage and salary discrepancies need to be satisfied (developing vs. developed countries)		
• Fair wage and work hours		
• Living wage		
• Wages/annual income/professionalization/value		
Hazardous Exposures	5	9%
• Chemical exposures		
• Pesticide exposure		
• Toxic chemical use		
• Dangerous environment		
• Sulfur exposure		
Education	3	5%
• Growers have good intentions but no background as educators. Pushing to deliver might not help		
• Education/training		
• Training for non-English workers		

Table II: Group 1 – Rich Fenske

WHAT – Issue	HOW - Strategy
<p>1. Racial & ethnographic issues</p>	<ul style="list-style-type: none"> - Asking Latinos and others to do jobs that “we” would not do - When Latinos come here [they] want the same working conditions as in Central/Mexico/South America, but not here - Need to talk about racist issues in agriculture...health issues follow (acceptable for Mexicans to work as pesticide applicators, but not whites) - Need the right vocabulary - Dignity of workers - Emotional distress is a health issue
<p>2. Sustainable vs. conventional ag difference</p>	<ul style="list-style-type: none"> - No defining line - In rural areas (& beyond) state-of-the-art diagnosis and treatment of occupational disease/injuries is not available. - There should be a definition of occupational health and safety – internationally, locally, nationally - Sustainable ag system is not defined and has not been linked to worker health and safety, but maybe it should.
<p>3. No infrastructure for worker safety and health in some places = non-sustainable ag</p>	<ul style="list-style-type: none"> - Problem is that it is still pesticide intensive – some cutbacks - Training won't do it/is not doing it. Need mechanical interventions - Injuries are the most pressing issues – still don't underestimate pesticide exposure - Design more engineering devices to mitigate occupational injuries – aim for = productivity @ Davis. Some incubators; state agencies, universities. Need \$ to do. - Can't compete with countries that can pay low wages – difficult to be an employer.

Table III: Group 2 – Barry Wilson

WHAT – Issue	HOW - Strategy	WHO – Partners	WHEN – Timeline	COSTS - Resources
1. Health and safety resources for workers and families	<ul style="list-style-type: none"> - Education and enforcement 	<ul style="list-style-type: none"> - Government - Community - Owners - Management - Professional associations - Workers/unions - Healthcare providers 	2 – 7 years	<ul style="list-style-type: none"> - Money - Leadership (strong & good) - Community support - Partner commitment
2. Fair wage and work hours	<ul style="list-style-type: none"> - Research on fair wages/cost of living - Advocacy/media 	<ul style="list-style-type: none"> - Economists - Labor unions - Workers - Scientists - Legislature - Grower advocacy groups - media 	0 – 7 years	<ul style="list-style-type: none"> - Funding - Science-based proposal - Pilot project demonstrations - Community support: farm workers, growers, consumers
3. Dangerous equipment	<ul style="list-style-type: none"> - Define the problem - Engineering solutions - Research ergonomic studies - Incentives for equipment safety in workplace - Required accident reporting - Literature review - Training 	<ul style="list-style-type: none"> - Federal & state agencies - Farm worker groups - Grower groups - Manufacturers - Legislature - Retailers - Healthcare providers - Media 	0 – 3 years	<ul style="list-style-type: none"> - Money - Lobbying - Cost-benefit analysis - Ergonomic/economic research

Table IV: Group 3 – Marcy Harrington

WHAT – Issue	HOW - Strategy	WHO – Partners	WHEN – Timeline	COSTS - Resources
1. Empowering and respecting employees	<ul style="list-style-type: none"> - Immigration reform (work visas, etc.) - Livable housing - Clean healthy environment - Living wage, job sharing among producers - Right to organize - Farm worker professional development (ESL, consultations) - Farmer-worker collaboration toward safety and health goals 	<ul style="list-style-type: none"> - Workers comp insurance (public & private) - Producers/model farms - Workers organizations - Social organizations (churches, etc) - Certification groups - Government agencies - Health care providers 	<ul style="list-style-type: none"> - Immigration reform – Long term (>10yrs) - Livable housing – Short term (<10yrs) - Clean & healthy environment – Long term (>10yrs) - Living wage, job sharing among producers – Long term (>10yrs) - Right to organize – Short term (<10yrs) - Farm worker professional development (ESL, consultations) – Short term (<10yrs) - Farmer-worker collaboration toward safety and health goals - Short term (<10yrs) 	<ul style="list-style-type: none"> - NIOSH – research/ - CDC - FHA - USDA - Consumers - Grants for Education & Training - Unions - Employers and workers - Legislators

Table V: Group 4 – Eric Swenson

WHAT – Issue	HOW - Strategy	WHO – Partners	WHEN – Timeline	COSTS - Resources
1. Mental health	<ul style="list-style-type: none"> - Basic research - Full-scale education (worker-healthcare-insurance-employers-legislature) - Overcoming inequality between coverage of physical and mental illness 	<ul style="list-style-type: none"> - Healthcare professionals, providers and public health - Worker community - Extension agents - Growers - Media - Insurance companies 	<ul style="list-style-type: none"> - did not complete 	<ul style="list-style-type: none"> - did not complete
2. Migration etc.	<ul style="list-style-type: none"> - Commonwealth approach (Mexico, US, Canada – European Union model) - Expansion of NAFTA - Public education on migrant worker - State legislation (i.e. driver license) 	<ul style="list-style-type: none"> - Other governments - Federal legislature and agencies - Media and public education 	<ul style="list-style-type: none"> - did not complete 	<ul style="list-style-type: none"> - Funding (private and public) - Foundations - Lobbyists
3. Wages	<ul style="list-style-type: none"> - Raising minimum wage - Public education as costs rise (certification, hidden costs) - Crew leaders/contractor involvement, regulation 	<ul style="list-style-type: none"> - Migrant community and farm workers - State and federal legislature - Growers and contractors 	<ul style="list-style-type: none"> - did not complete 	<ul style="list-style-type: none"> - did not complete

Table VI: Group 5 – Kit Galvin

WHAT – Issue	HOW – Strategy	WHO – Partners	WHEN – Timeline	COSTS - Resources
1. Vulnerability of workers	<ul style="list-style-type: none"> - Education and training - Ability to unionize (collective bargaining framework) - Incentives to growers to empower workers - Worker driven/designed safety programs - Workers comp. tied into a grower incentive safety program - Promoting case examples of effective safety programs or strategies - Group of safety professionals that serve as compliance and consultation experts - Site-specific solutions (designed for farm-individual needs) - Legislation - Retroactive rating groups 	<ul style="list-style-type: none"> - did not complete 	<ul style="list-style-type: none"> - did not complete 	<ul style="list-style-type: none"> - did not complete
2. Need for quantitative data	<ul style="list-style-type: none"> - did not complete 	<ul style="list-style-type: none"> - did not complete 	<ul style="list-style-type: none"> - did not complete 	<ul style="list-style-type: none"> - did not complete
3. Awkward postures	<ul style="list-style-type: none"> - Tool development - Engineering and design - Distribution of tools - Unified data/Input & reporting system - Legislation - Retroactive Groups 	<ul style="list-style-type: none"> - Employees/growers - Ag. engineers - Ergonomics - Government - Insurance companies - University researchers - Entrepreneurs - Commodity groups 	<ul style="list-style-type: none"> - 5 years, legislation in place 	<ul style="list-style-type: none"> - Commodity boards - Insurance companies - Government