Title: Promoting Coordinated Management of Water Quality Protection and Food Safety Initiatives in California Vegetable Production

CONFERENCE PLAN

APPROACH AND ACTIVITIES

The conference is designed in two parts:

Presentations and Panel Discussions in Sessions I (Framing the Issue), II (Review of the Current Situation), and III (Addressing Concerns and Limitations – what we do not know). This approach will create a common knowledge base for scientists from different disciplines that will support collaborative efforts.

Field Visits and Collaborative Workgroups in Session IV (Ambitions, Solutions and Innovations) that model the interdisciplinary collaboration and research which will be required to coordinate the management of water quality and food safety practices.

PRESENTATIONS AND PANEL DISCUSSIONS

SESSION 1: FRAMING THE ISSUE (0.5 hours)

Rationale: Participants will gain perspective on the consequences of water quality protection and food safety conflicts, and on why they should care about resolving these conflicts. Current habits of thought of separate scientific disciplines may inhibit technology transfer and innovations needed to promote coordinated management. The potential social, environmental and economic consequences of current industry direction will be addressed by an environmentalist advocating for water quality protection, a representative from a food safety advocacy group, and a lettuce grower trying to comply with regulations.

SESSION II: REVIEWING THE CURRENT SITUATION (2.5 hours)

Rationale: to create a common framework for all attendees. Through discussion and poster presentations, participants will gain a working knowledge of the current state of science and technology of water quality and food safety programs from which to build collaborative interdisciplinary efforts (Objectives 1 and 2)

Format: Panel Presentations with time for discussion. Presenters will be asked to prepare their presentations in advance of the conference for inclusion with the registration packet, to leverage opportunity for discussion at the conference.

Part 1 – "A Starting Point" examines the multiple perspectives and driving forces behind the water quality and food safety protection efforts. Dr. Tim Hartz will set the stage by discussing cool-season vegetable production practices. Dr. Daniel Mountjoy, Assistant State Conservationist with USDA NRCS, will discuss field discharge water quality and water catch basins, filter strips and grassed waterways, and different discharge water quality regulatory initiatives. Dr. Devon Zagory, Senior Vice President Davis Fresh Technology, will address the role of third party auditors and the specific pathogens of concern for fresh produce. Dr. Robert Buchanan, FDA, has been invited to relate the history of microbial food-borne illnesses and initiatives to eliminate future outbreaks.

Part 2 "Getting into the Data" will summarize research data regarding the efficacy of water quality management practices and the importance of on-farm microbial food safety mitigations. Dr. Marc Los Huertos, Assistant Professor, CSU Monterey Bay will review primary and

secondary data on the benefits of water quality management practices in California. Dr. Linda Harris, UCCE Specialist, will review primary and secondary data used to guide food safety programs that relate to water quality management practices, on-farm sources/vectors of food borne pathogens, and pathogenic persistence in the field. Dr. Pamela Staton, Forensic Science Center Marshall University, has been invited to speak on Water Quality and Microbial Safety Measurements, including the research needed to improve methods of analysis, and identifying assumptions and secondary data that are used to support current methods.

Part 3 - "Intersection of Food Safety and Water Quality Protection Practices" will be a summary panel discussion. Dr. Terry Salmon, UCCE Wildlife Specialist; and Dr. Rob Atwill, Veterinarian/UCCE Specialist, will join Drs. Mountjoy, Zagory, Hartz, Los Huertos, Harris, and Staton. The discussion will center on the role of wildlife as vectors of food borne pathogens, and the degree to which water quality management practices might increase the presence of wildlife in the field.

Part 4 - Poster Session and Social Hour will provide an opportunity for conference attendees to bring current relevant research efforts to the conference in a setting that allows additional discussion. Poster presenters will be asked to display their poster for the duration of the conference.

SESSION III: CONCERNS AND LIMITATIONS (what we don't know) (4.0 hours)

Rationale: to explore interdisciplinary perspectives, assumptions and scientific limitations as well as current risk and liability management approaches which inhibit the coordinated management of water quality protection and food safety initiatives. This session will identify sources of secondary data which may be affecting current actions. Furthermore, this session will identify priority research needs.

Format: Individual Presentations and Panel facilitated discussion

Part 1 – "The Challenges of Coordinated Management of Water Quality Protection and Food Safety" will discuss the assumptions behind current food safety practices, identify information the food industry utilizes to assesses liability, and what data is needed to support or modify these assumptions. Dr. Trevor Suslow, UCCE Specialist will lead a discussion on What We Need to Know to Promote Coordinated Management of Food Safety and Water Quality. This presentation will address what information is needed about microbial pathogens to make coordinated management possible, microbial source tracking, and modes of transfer.

Part 2 – "Perspectives of On-farm Risk Factors" will be discussed by Dr. Carol Myers, Senior Investigator, California Department of Health Services, and Chris Rose, Watershed Assessment Unit, Central Coast Regional Water Quality Control Board. They will discuss, through their experience with recent pathogenic food-borne illness outbreak investigations, what data were used to resolve the investigation, and the identification of data that could have improved the investigation. Dr. Robert Mandrell, USDA Agricultural Research Service, will address whether improved sampling, detection and identification methods can be used to accurately identify sources of crop contamination. This presentation will help to clarify current limitations of methods and how improved methods could potentially be used to minimize inherent risks of water quality management practices.

Part 3 – "Research Objectives that Promote Coordinated Management of Food Safety and Water Quality Practices", will be a panel discussion. Drs. Suslow, Myers, and Mandrell, and Mr. Rose will summarize the research needs identified in Session III regarding water quality

management practices and pathogens, vectors of pathogens into the food system, wildlife as vectors of food borne pathogens, the potential for water quality management practices to increase the presence of wildlife in the field, and pertinent assessment and research methodologies.

FIELD VISITS AND COLLABORATIVE WORKGROUPS
SESSION IV: AMBITIONS, SOLUTIONS, AND INNOVATIONS

Rationale: to provide, in a real-life situation, an understanding of the impacts of water quality management practices and food safety protection GAPs, followed by small collaborative workgroups sessions where scientists, regulators and industry professionals may devise innovative approaches to actual water quality management practices and food safety concerns.
Format: Bus Tour followed by workgroups sessions.

Part 1 – "Water quality management practices in the field" Bus Tour will provide realistic perspectives on practices and concerns through field visits with conservation planners and agricultural producers. Each bus will visit a different type of water quality management practice. Collaborative workgroups will consist of about 45 participants. This will allow participants to become familiar with other group members as well as the specific management practices. The groups will be provided with trained recorders and facilitators to capture work of groups in field. Digital cameras will be available to capture input for final plenary session. The Facilitators will be: 1) Dr. Daniel Mountjoy – grassed waterway; 2) Dr. Giulio Ferruzzi USDA-NRCS - filter strip/riparian buffer, and 3) Dr. Terry Prichard, UCCE - water containment basins.
Part 2 – "Innovative approaches for coordinated management of water quality and food safety practices" Each larger bus group will be further divided into smaller subgroups of 15-25 people. The smaller participant subgroups will continue the collaborative problem solving exercise as each group will be tasked to identify: field conflicts, data gaps that impede the decision making process, potential research to address those gaps, and potential research funding sources. Finally, they will strategize about possible interim actions that cool-season vegetable producers may implement immediately.
Part 3 – General Plenary Session - will consist of individual reports from collaborative workgroups on barriers to and accomplishments during the problem solving exercise. This part will tie together all of the sessions. It will summarize barriers, and lessons learned. It will focus on problem resolution, and share strategies to move forward. It will provide a path-forward for coordinated management through prioritized research objectives, research grant funding, and short-term actions for cool-season vegetable producers that address the current need for coexistence between water quality and food safety practices.

Itemized Budget for Food Safety Water Quality Conference

Total Request Needed $ 78,161.37

CATEGORIES		Year One			
		Required	Requested	Cost Recovery	Cost Share
a. Personnel					
Principal Investigator-Bianchi	.2 FTE$75,000	$15,000			$15,000
Co-PI-Harris	80 hours @$75/hour	$6,000			$6,000
Research Scientists					
Other Personnel	.33 FTE $48,682	$16,065	$16,065		
TOTAL PERSONNEL		$37,065	$16,065	$0	$21,000
b. Fringe Benefits					
Other personnel fringe	22% x $16,065	$3,534	$3,534		
TOTAL FRINGE		$3,534	$3,534	$0	$0
c. Travel					
Preconf travel PI	2 trips for 2days 1 night @ $50 perdiem, $89 lodging, $320 mileage	$918			$918
Conference Travel-Consortium					
Lodging ($149/night)	10 @ 3 nights @$149/ea	$4,470			$4,470
Per diem ($50/day)	10 @ 4 days @$50/day	$2,000			$2,000
Transportation ($300/each)	10 @ $300 each	$3,000			$3,000
Conference Travel-Speakers		$0	$0		
Lodging ($149/night)	18 @3 nights @$149/ea	$8,046	$0	$8,046	
Per diem ($50/day)	18 @ 4 days @$50/day	$3,600	$0	$3,600	
Transportation ($300/each)	14 @ $300 for mileage	$4,200		$4,200	
Transportation ($700/each)	4 @ $700 each for national airfare	$2,800	$0	$2,800	
TOTAL TRAVEL COSTS		$29,034	$0	$18,646	$10,388
d. Equipment					
TOTAL EQUIPMENT		$0	$0	$0	$0

		Year One			
		Required	Requested	Cost Recovery	Cost Share
e. Supplies					
Office supplies-phone, printing, duplication, postage		$2,212	$2,212		
Proceedings	200 copies@ $5/copy	$1,250	$1,250		
Meeting supplies	150 persons @ $2/each	$300	$300		
TOTAL SUPPLY COSTS		$3,762	$3,762	$0	$0
f. Contracts					
Coalition Coordinator Services	200 hours@$75/hr	$17,100	$15,000		$2,100
Computer support	10 hours @50/hour	$500			$500
Conference Moderators	15 hours @ $75/hour	$1,125			$1,125
Conference Speakers	29 hours @ $75 and 5 @$15(	$2,925			$2,925
Subcommitee Chairs	60 hours time/year	$12,000			$12,000
Consortium members	164 hours/year	$21,300			$21,300
Poster board rental	10 boards x 2 days @$20/da	$400		$400	
Food costs	3 lunches @$15 ea and one social @$25 ea	$10,500		$10,500	
Facility Rental	Estimates - Embassy Suites San Luis Obispo	$6,830		$6,830	
Transporation for field tours	3 buses @$650/bus- 1/2 day	$1,950		$1,950	
Facilitation/Moderator Training					(5000)
TOTAL CONTRACTUAL		$74,630	$15,000	$19,680	$39,950
g. Other					
Teleconferencing Costs	1 calls/mo. x 4 mos. @ 120 min.each x 23 persons 39 cents/min./person	$3,229			$3,229
TOTAL OTHER COSTS		$3,229	$0	$0	$0
h. TOTAL DIRECT COSTS (sum of a-g)		$151,255	$38,361	$39,326	$71,338
i. Indirect costs					
22% of (base) See justification for detail - Waived					$7,645
j. TOTAL PROJECT COST (sum of h and i)		$151,255	$38,361	$39,326	$78,983
Registration fees-revenue	$300 registration@130 registrations			$39,000	
k. TOTAL FUNDS NEEDED		$38,361			

Note - Meeting facilitation not included