Co-management of Food Safety and Conservation

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Overview

Unintended Consequences

What is at Stake

Shaping Future Food Safety & Conservation Outcomes
Historical Perspective of Food Safety with Regard to Fresh-Cut Leafy Greens
Environmental Conflicts After 2006 *E. coli* 0157: H7 Spinach Contamination

Denuded vegetative buffers

Hunted and poisoned wildlife

Installed fences

One Mile of Salinas River Habitat Removed
20 Acre Lake Bulldozed

Before

During

After
One Lone Tree Left of What Was a Windbreak

Before

After
Rodent Bait /Traps Along the Salinas River
Fencing Out Small and Large Wildlife
Cattle Are a Major Reservoir of *E. coli* 0157: H7
Wildlife Typically Have a Low Incidence of Food Borne Pathogens
There is no published research demonstrating that removing vegetation or water-bodies reduces food safety risk.
What is at Stake

**Biodiversity**

Biological diversity includes the variety of all forms of all rare and common life, from bacteria and fungi to grasses, ferns, trees, insects, and mammals.
What is at Stake

Public Health

• Food Safety
• Food Quality
• Nutrition
• Environment

Farm Conservation Practices That Support Public Health
Food Quality, Nutrition & Environment

- Filtration of Nutrients and Pesticides
  - Soil Stabilization
  - Flood Control

- Nutrient Cycling
  - Reduction of Plant Pathogens
  - Water Conservation
  - Nutrient Holding Capacity

- Reduction of Airborne Pesticides
  - Pollination Services
  - Predatory Insect and Raptor Pest Control

- Grassed Waterways
- Riparian Buffers
- Wetlands

- Cover crops
- Compost

- Windbreaks
- Hedgerows

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Next Several Slides are Examples of Co-management from Jacobs Farm
VEGETATED DRAINAGE DITCH

BENEFITS

• PREVENTS MOVEMENT OF SOIL INTO DOWNSTREAM WATER BODIES

• PREVENTS MOVEMENT OF PESTICIDES AND FERTILIZERS

• PROVIDES HABITAT FOR BENEFICIAL INSECTS AND WILD LIFE OUTSIDE OF CROPPED AREAS

RISKS

• POTENTIAL HARBORAGE FOR RODENTS

MITIGATION

• PRE OPERATIONS INSPECTIONS

• PRE HARVEST BLOCK INSPECTIONS
COVER CROP
COVER CROP AS HABITAT
COVER CROP

**BENEFITS**
- Protects bare soil during non-crop season
- Fixes atmospheric nitrogen into soil, reducing need for fertilizer inputs
- Improves crop plant health, reducing pest and disease problems
- Habitat for beneficial insects
- Habitat for wild life during non-crop season

**RISKS**
- Potential harborage for rodents
- Contamination from wild life during non-crop season

**MITIGATION**
- Contamination during non-crop season unlikely to carry over into cropping season
- Monitoring
  - Pre operational inspections
  - Pre harvest block inspections
WINDBREAK
WINDBREAKS

**BENEFITS**
- Prevents wind erosion of soil
- Protects crop from wind stress
- Improves plant health, reducing pest and disease problems
- Habitat for beneficial insects
- Habitat for predators of rodents

**RISKS**
- Potential harborage for rodents

**MITIGATION**
- Monitoring
  - Pre operational inspections
  - Pre harvest block inspections
RED-TAILED HAWK – Natural Vertebrate Pest Control

BENEFITS

• FENCES AND WIND BREAKS PROVIDE ROOSTS

• CONSUME RODENTS, RABBITS, AND SQUIRRELS
What is at Stake

Federal, State, and Local Mandates

• State and Federal Wildlife Agencies
• National Marine Fisheries Service
• Environmental Protection Agency
• State Water Agencies
• US Army Corps of Engineers
• USDA National Organic Program
Shaping Future Food Safety & Conservation Outcomes

Co-management principles should be:

• Science-based
• Accommodate New Research Findings
• Adaptable Depending on the:
  • Crop
  • Harvesting Method
  • Whether it is Processed or Not
  • Farm Size
  • Natural Diversity
Less Diverse Farms on CA’s Central Coast
More Diverse Farm on CA’s Central Coast
Highly Diverse Farm on CA’s Central Coast
Opportunity to Learn from CA’s Conflicts & Progress Toward Co-management

FDA Rule Making Should Include Co-management Concepts Based on:

- Science &
- Common Sense

Agricultural Industry and Government Should Collaboratively Address the Co-existence of Food Safety and Conservation Through:

Education for:
- Auditors
- Buyers
- Farmers

GAPs (Good Agricultural Practices)
- Audits Questions
- Guidance for Auditors
Food Safety Modernization Act

- Take into consideration, consistent with ensuring enforceable public health protection, conservation and environmental practice standards and policies established by Federal natural resource conservation, wildlife conservation, and environmental agencies; and in the case of production that is certified organic, not include any requirements that conflict with or duplicate the requirements of the national organic program established under the Organic Foods Production Act of 1990 (7 U.S.C. 6501 et seq.), while providing for public health protection consistent with the requirements of this Act.
Co-managing Food Safety and Conservation Summary

Avoid replicating the unintended consequences occurring in California.

Always keep in mind that conservation practices support many aspects of public health (food safety, food quality, nutrition, and the environment).

Until we better understand whether or not wildlife presence near farms plays a part in crop contamination, FDA rules, and USDA and industry GAPs should be carefully crafted to avoid impacts to wildlife and their habitat and to conflicts with laws and regulations.
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