Safe and Sustainable: Co-Managing For Food Safety and Ecological Health in California's Central Coast Region

Background

The confluence of national concerns about prevention of food-borne illnesses and long-standing awareness of the risks of environmental degradation presents several pressing challenges. It also creates unprecedented opportunities for broad-based coalitions to form around shared concerns, interests, and values.

The California Central Coast region's agriculture and environment play key roles in protecting public health, for example by directly affecting water quality and food safety and by significantly contributing to affordable supplies of leafy greens, an important component of a healthy diet. Agricultural and ecological systems are also the subject of significant regulation and mounting challenges to their long-term viability.

Current State of Management Practices

On-the-ground farm management practices have changed in response to food safety concerns.

- Growers report being pressured by auditors, inspectors, and other food safety professionals to modify ecological management efforts in ways that cause concern among growers.
- Auditors/inspectors/others often specify multiple environmental features as food safety risks.

The pressures growers face have resulted in changes to agricultural management practices, including impacts on related efforts to conserve wildlife, as well as protect soil and water quality.

- Growers implement conservation practices for multiple reasons, including maintaining long-term viability of the natural resource base.
- The same sources that provide evidence of adoption of conservation practices also provide clear evidence that in response to pressure from auditors, inspectors and other food safety professionals some conservation practices are now being removed and/or discontinued.

State of the Science: Implications of Changes to Management Practices

Incomplete data are available at this point regarding the risk that wildlife and other natural resources pose to food safety, as well as the full effects that food safety practices have on wildlife and other natural resources.

The potential for, and relative importance of, direct fecal contamination and indirect contamination of the growing environment by domestic animals and wildlife is an area of active research.

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- The current level of understanding is not sufficient to fully predict risk posed by various contamination processes, nor to identify and implement specific, effective and economically viable mitigation strategies to protect fresh produce from contamination by domesticated and wild animals.

Focus of wildlife pathogen studies has largely rested on the fact that some species of wildlife can carry pathogens, and that they may enter crop fields. However, to fully assess the risks posed by these animals, it is necessary to answer the questions: what does happen, how much risk does it pose, and what management strategies are appropriate to minimize risk?

Regarding ecological health, available data from the Central Coast and beyond point to negative environmental consequences of activities reported by growers to be occurring.

- Activities include eliminating or deterring wildlife, reducing non-crop vegetation (for example riparian vegetation and plants in ditches and ponds), and removing natural and engineered water bodies.
- With respect to food safety implications, replacement of vegetated buffers with bare ground buffers is of particular concern.

Co-Management and Key Issues

Co-management is defined as an approach to minimize microbiological hazards associated with food production while simultaneously conserving soil, water, air, wildlife, and other natural resources.

- It is based on the premise that farmers want to produce safe food, desire to be good land stewards, and can do both while still remaining economically viable.
- Suggested initial co-management principles include being science-based, adaptable, collaborative, commodity-specific, and site-specific.

Stakeholders have identified key issues that must be considered in efforts to address the challenges of integrating food safety and natural resource conservation goals.

- The presence of numerous private corporate food safety standards, which raise multiple concerns such as: inconsistent interpretation and application of requirements, a spiraling food safety “arms race,” lack of transparency in the standards, and unclear scientific basis for certain standards.
- Issues related to mounting liability and litigation risk, potential effects of national food safety standards, the industry’s movement into value-added products, and lack of existing scientific data regarding minimizing risk.

Conclusion

Growers are currently asked to make high stakes decisions with low levels of information, the only certainty being that if anything goes wrong they will be held accountable in both legal and public opinion. Individual and societal values play a key role in decision-making at all levels, which stakeholders acknowledge affects co-management success.

Legislation and ensuing national produce standards could either strengthen co-management efforts or undermine them.

Challenges that must be addressed in policy and rule-making include:

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- Address the potential for a food safety "arms race" - Unless national standards formally and explicitly address others, private corporations may develop requirements that exceed national standards created by FDA and/or USDA/NLGMA. As experienced in California, private corporate standards may create an "arms race" phenomenon, and drive increasingly aggressive on-farm management practices despite a more widely accepted set of standards.

- Ensure a scientific foundation - Current scientific understanding of processes of crop contamination is quite limited. A number of studies are underway and should be reflected in national food safety standards on an ongoing basis, making them truly science-based.

- Build in flexibility - A "one size fits all" approach is unsuitable to a diverse range of locations, crops, and production methods. Flexible risk-based standards may better accomplish food safety and ecological health goals than uniform national food safety standards.

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