National Sustainable Agriculture Coalition

MEMO

To: Don Kraemer and Prevention Standards Team;
Sharon Natanblutt
Fr: NSAC Food Safety Taskforce;
Ferd Hoefner
Re: Co-Management and Wildlife and Conservation Concerns
Dt: 10-5-11

During our conference calls you requested some additional detail about our concerns regarding potential conflicts between environmental/conservation practices and concerns and the produce food safety rule that is being promulgated as a result of FSMA. We apologize for the delay in our response, and hope that our suggestions are still timely and useful. Additional suggestions on other topics will be transmitted soon.

We believe that the Produce Rule should include a definition of co-management, as follows:

> **"Co-management"** means farm system management approaches that respond to site-specific conditions by integrating cultural, biological, and mechanical practices that promote ecological balance and public health by conserving biodiversity, soil, water, air, energy and other natural resources, while also reducing pathogen hazards associated with food production."

What follows are three specific FSMA mandates, beginning with the relevant excerpt from the legislation, along with our assessment and summary of the concepts or possible language for inclusion in the Produce Rule.

1. Conservation and Environmental Standards and Policies

> FSMA: ***"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."***

General Considerations

- Many environmental practices result in clean water and air, and aid in the production of safe food, thereby boosting public health. These practices should not be overridden by food safety regulations or rules and, in fact, should be actively promoted.

- FDA, working with NRCS, NOP, EPA, and FWS, should develop a process for review and reconciliation of any conflicting standards or rules.

- In no case should the Produce Rule require a farmer to remove a practice or activity that was

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put in place as a result of a federal or state conservation program, the National Organic Program, or environmental regulatory requirement.

- Moving forward, whenever there is a conflict between an NRCS conservation practice standard, NRCS approved conservation plan, or a NOP Organic standard, and a food safety requirement, the burden should be on the FDA to work with NRCS or NOP to revise the rules, if necessary, to address the food safety consideration. The same holds true for EPA or FWS. The burden should never be on the farmer to try to reconcile agency differences.

- If changes are made to existing conservation practice standards or requirements to improve food safety, financial assistance should be made available to the producer through federal conservation programs to adopt and actively manage the new standard or requirement.

- FSMA mentions the importance of being consistent with other Federal mandates. At the same time, many Federal laws, such as the Clean Water Act, delegate implementation to States. FDA should take into account these cooperative agreements and should take extra precautions not hamper any State's activities under a delegated or cooperative agreement, or the implementation of its environmental policies.

Specific Concepts and Language that should be reflected in Produce Rule

Non-crop vegetation Management

- **General:** The presence of non-crop vegetation is associated with a number of public health benefits such as clean water and erosion control. Indiscriminant removal of non-crop vegetation should never be required as such actions can potentially increase pathogen risk, pollute water, and further soil loss. Vegetation that is present on the farm as part of conservation practices, including riparian buffers, field borders, filterstrips, contour grass strips, pollinator habitat, and other similar practices, should not be removed.

- **Grasses and Wetlands**: The rule should encourage the planting of grass filter strips in ditches and between crops and pastureland to reduce pathogen movement in water. Wider ditches with dense, well-established vegetation are more effective for water quality objectives. The rule should also encourage the conservation of natural wetlands.

- **Hedgerows and Windbreaks**: The rule should also encourage the planting of hedgerows and windbreaks to reduce contamination from pathogen-laden dust, especially when near operations with significant amounts of manure, or locations where animals may congregate, such as animal loafing areas or water sources.

Soil Management

- **Cover Crops, Rotations, and Composting**: The rule should encourage cover cropping, resource-conserving crop rotations, and composting as means to foster diverse microbial soil populations.

- **Composting Process**: With respect to composting, the rule should adopt the National Organic Program's regulations and standard for all compost production, whether commercial or "on-farm."

- **Compost Recordkeeping:** When purchasing compost from off farm sources, farmers should have invoices and related reference material documenting the compost making process and the materials. The documentation should include nutrient content and pathogen test results for the finished product, and information regarding how the finished product has been stored. Test results should be updated annually. Farmers who produce compost on the farm should maintain similar information and a similar frequency, and content for compost testing should be followed.

- **Fumigation**: Soil should not be fumigated for food safety reasons. Rather than attempting to kill all microbes in soils with fumigation, microbial diversity should be optimized, fostering competition with and predation of pathogens, and helping to reduce pathogen survival in the environment.

- **Raw Manure:** Until more is known on best practices for safe use, the rule should follow the National Organic Program regulations that require raw animal manure to be composted unless it is (a) incorporated into the soil not less than 120 days prior to the harvest of a product whose edible portion has direct contact with the soil, or (b) incorporated into the soil not less than 90 days prior to the harvest of a product whose edible portion does not have direct contact with the soil.

2. Animals in the Growing Area

FSMA: ***"include, with respect to growing, harvesting, sorting, packing, and storage operations, science-based minimum standards related to …animals in the growing area…."***

General Considerations

- While current prevalence data shows wildlife present low risk, it is incomplete and an area of active research. Since pathogen movement pathways remain very hard to understand, simply looking at prevalence may not get us much closer to understanding how to manage risk. For an in-depth look at what we do know, review:

    - Wild Farm Alliance's Relative Risk of Animals document (http://www.wildfarmalliance.org/Press_Room/WFA_Relative_Risk_Animals.pdf).

    - Safe and Sustainable report (http://www. www.wildfarmalliance.org/resources/Safe_&_Sustainable.pdf)

Specific Concepts and Language that should be reflected in Produce Rule

- Within the overall spectrum of animal management, control of livestock can be more effective as a pathogen control measure and will be of greater priority than control of wildlife.

At the same time, integrated animal and crop systems are important to soil health, pathogen control, and environmental quality. Many farmers rely on integrated livestock and crop systems to ensure the economic viability of their farms and to manage risk. They also may rely on working animals as a deterrent to wildlife intrusion, both for pathogen control and crop protection. As such, working livestock and farm animals require access to fields. Livestock access should be managed to minimize risk of contamination to crops, especially close to harvest time, but should not be prohibited.

- Elimination of wildlife from farms and fields is neither attainable nor desirable. Rather, farms should optimize features and practices that encourage habitat-dependent species to stay in their preferred natural environment, and to minimize their movement into crop areas. This approach will reduce the risk of crop contamination.

- Crop fields should be monitored for wildlife presence with greatest emphasis at or near harvest time. When fecal contamination is detected, a no-harvest zone will be designated. There should not be a single standard for establishing such a zone. Factors such as crop type, use, and method of harvest, as well as environmental factors such as wind, humidity, and moisture can all influence the extent of risk of fecal contamination. Establishment of arbitrary, excessive no-harvest zones should be avoided.

- When there is unusually heavy wildlife activity in the field, farmers should be encouraged to use loud noises, sprinklers activated by motion sensors, scare balloons, food attractants located in other areas, fencing when appropriate, or other means to discourage their presence in the crop area.

- Fencing should never be 'required' by any federal rule. If fencing is chosen by the farmers' voluntary decision for the best way to protect the crop, then they should also be able to fence off as little or as much of the field as they determine to be necessary for that purpose. Negative impacts of fencing can occur, including disruption of the predator/prey relationship resulting in an increase of rodent populations within the farm, interference with wildlife movement to food and water resources, and when next to rivers may be swept away in floods to pile up and divert flows downstream causing worse problems. Farmers should check with local laws on fencing specifications before installing.

3. Organic Production

FSMA: ***"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."***

- The National Organic Program requires that organic farmers conserve biodiversity, and protect soil, water, wetlands, woodlands and wildlife. New food safety rules must allow these farmers to:

    - Conserve soil with non-crop vegetation that alleviates erosion,
    - Protect water quality with non-crop vegetation that can filter pathogens,
    - Conserve and restore wetlands that can filter pathogens,

- Install and conserve habitat that supports pollinator, predatory and parasitic insects and beneficial rodent-eating raptors and terrestrial predators.
- See: USDA-AMS National Organic Program Regulation, 7 CFR Part 205, specifically CFR § 205.200 and 205.2 (definition for natural resources) http://www.ams.usda.gov/AMSv1.0/nop

- The National Organic Program requires that compost must be produced through a process that combines plant and animal materials with a specified C:N ratio, a specified temperature, and turned a specified number of times. It also says that raw animal manure, must be composted unless it is (a) incorporated into the soil not less than 120 days prior to the harvest of a product whose edible portion has direct contact with the soil, or (b) incorporated into the soil not less than 90 days prior to the harvest of a product whose edible portion does not have direct contact with the soil. New food safety rules must allow organic farmers to:

  - Use properly made manure-based composts to increase soil microbiology which can support organisms competitive with and antagonistic to food borne pathogens,
  - Use manures when a proper amount of time has lapsed between application and harvest.
  - See: USDA-AMS National Organic Program Regulation, 7 CFR Part 205, specifically CFR § 205.203 http://www.ams.usda.gov/AMSv1.0/nop