Four Flaws of the FSMA Draft Rules for Produce Growers

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The Food and Drug Administration (FDA) has asked for input on the proposed Food Safety Modernization Act (FSMA) rules. It is clear that FDA listens to comments, since major revisions were made to the first draft of the rules based on feedback received. But there is still a long way to go if FSMA is to represent a rational approach to improving food safety for farmers and their customers. Here is my personal view of four problems the draft rules would create if implemented as written.

1. **They will create confusion and unfairness in the marketplace.** Let's say I am a part-time strawberry grower and my farm has annual sales just over $25,000 to a wholesale distributor. I will have to follow the same procedures as a strawberry farm with $25 million in sales, whether it is up the road, or across the country. The difference of course is my net income will be just a few thousand dollars so compliance will be a huge burden on my business whereas it will be a small part of operating costs for a large farm.

Across the street from me is another strawberry farm, and they sell over $200,000 of wholesale berries to the very same distributor that I sell to, but they don't have to comply with the entirety of the Produce Rule. That's because they also have $250,000 in retail sales, so they are largely exempt from FSMA under the Tester-Hagen amendment (designed to protect farms from FSMA if they have less than half a million dollars in 'food' sales, of which at least half are to local, direct markets).

Up the road, my friend grows and sells just over $25,000 of wholesale potatoes. I've convinced her to put in some strawberries to supplement her income with sales to my distributor. She expects to sell just a few thousand dollars of wholesale berries, but that means she would have to comply with FSMA. Even though the potatoes are not covered by the Produce Rule (since they are not typically consumed raw) the $25,000 exclusion threshold is based on annual sales of all produce. Needless to say those berries will be ripped out when FSMA goes into effect.

Another nearby farm grows mostly sweet corn, pumpkins and winter squash. Much of their produce is sold to a local grocer that requires GAPS (Good Agricultural Practices) food safety certification, even though this farm does not have to comply with FSMA because the crops they grow are not typically consumed raw. The farm also retails these crops at a small farm stand, where they advertise their food safety certification under GAPS. But when asked, they must explain to customers that they do not actually comply with the food safety law.

The scenarios above may be somewhat unusual but they highlight the fact that consumers, buyers and farmers will be confused by the application of the Produce Rule. Further, the rule will create a huge barrier to entry, and survival, for small wholesale growers.

The solution. The Produce Rule should specify that all commercial produce farms must have food safety plans, but farms that are exempt or excluded from the Federal law will be covered by simpler, scale-appropriate rules developed at the State level. The sales threshold for exclusion from FSMA compliance

should be raised to $250,000 for farms with primarily wholesale markets (a level comparable to the Tester-Hagen exemption for farms with no more than $500,000 in sales of all food, at least half of which must be retail). Thus, small farms with any mix of retail or wholesale markets will be more equally regulated. This will also allow all farms to provide their markets with a reasonable, scale-appropriate, level of food safety assurance, while at the same time reducing risk. (The Pesticide Applicator program of EPA is an example of state-level oversight of an issue that affects most farms and is regulated by Federal law.)

Engaging all farms in scale-appropriate food safety regulation is important because once FSMA has been in effect for a period of time, both wholesale and retail customers (and their attorneys and insurance agents) will want assurance that food safety practices are being followed on all the farms they buy from, regardless of their size, location, or crops. I have every confidence that Cooperative Extension and state Agencies of Agriculture can develop small-scale food safety certification systems that fit the farms they work with, following the general principles of the FSMA produce rule and GAPS. In fact, Vermont and Massachusetts are already developing local, practical, 'accreditation' programs to help their farmers remain competitive in the marketplace while also reducing risk. Such a diversity of state programs following common principles will enhance our knowledge of how best to manage food safety risks on the farm across the nation's disparate environmental conditions and production systems.

2. **Randomly testing surface water is not likely to improve food safety**. Despite the improved approach to surface water testing in the revised Produce Rule (i.e. 20 times over 2 years vs. weekly), it is still based on a flawed assumption and a lack of science. Put simply, we do not know how to accurately characterize a flowing body of water for food safety risks. Testing generic E. coli repeatedly, perhaps months before application of surface water to a crop, will waste time and money and will also create a false sense of security. It is akin to saying that if cloudy weather is a food safety risk, farmers should measure the cloud cover 20 times over two years to establish their baseline risk. The resulting calculation is not likely to reflect the actual risk of cloudiness, nor whether it will be cloudy at harvest.

However, the revised Produce Rule did endorse practices that are known to allow microbes and presumably pathogens to die off before a crop is sold and consumed. These include waiting to harvest after applying agricultural water, washing produce, and/or storing produce. For some crops, FDA's proposed die-off rate makes water testing especially useless. Take strawberries for example again. Many growers use overhead irrigation from surface water to protect the crop from frost when it flowers in early spring, and there are typically a few green berries present at this time. Once the danger of frost is past they switch to drip irrigation to avoid wetting the fruit and foliage which encourages disease. These growers might also use well water for their spray solutions. But because there were a few green berries present during overhead irrigation for frost, the water testing regime must be followed, even though it will be weeks or months until the crop is harvested. Given the proposed Produce Rule's generic E. coli die-off rate of 0.5 log/day, there is no practical reason for testing surface water when harvest occurs weeks or months after the last time water contacts the crop.

The Solution. Research should be initiated to develop on-site tests of surface water so that a relatively instantaneous measure of generic E. coli can be obtained immediately prior to the application of the

water to crops. This is the testing needed to estimate a truer level of risk. Farmers can then address that risk by employing die-off practices as necessary.

Until such tests are available, the Produce Rule should focus on practices that reduce risk by promoting microbial die-off, rather than on extensive testing. Given the FDA's suggested die-off rate, and my own on-farm research that shows each rinse of leafy greens yields about a one-log die off of generic E.coli, there are standard precautions that could be implemented. I'd suggest requiring either a several-day wait after overhead irrigation, or cleaning of the crop. The latter could be either multiple rinses, some specific time under a flowing rinse, or use of an approved sanitizer in the wash water.

3. **Not regulating raw manure at all is risky and confusing**. Although it makes sense to delay creation of a new standard for raw manure management until there is sufficient scientific evidence, it makes no sense to not require any wait between application of raw manure and harvest. Buyers will not tolerate the idea that raw manure may have been recently applied to crops, and farmers will be confused by a rule that requires testing of water for E.coli yet allows a farmer to spread raw manure at any time.

The Solution. Manure is known to pose a risk to food safety, and pathogens it may contain are known to die off over time in the field. So, while research is needed to optimize recommendations, in the meantime it makes sense to implement the common sense standard that is already widely accepted by growers and buyers. That is, the 90 or 120-day waiting period after manure application until harvest, depending on whether the crop is on the ground or not. This is required by the National Organic Standards and GAPS is similar with 120 days for all crops.

4. **Creating needless obstacles based on location or cooperation will harm local food systems**. The proposed rule triggers stricter standards for farmers that conduct certain farm activities off-the-farm, or for farmers that work together through food hubs or other joint ventures. Sorting, mixing, removing stems and husks, washing, packaging and stickering or labeling are all considered farm activities under the Produce Rule, but not if they take place off-the farm or if they are done by enterprises that are jointly-controlled by multiple farms. These situations would trigger the Preventative Controls rule (because the farms would now be 'facilities') and require more intense food safety procedures.

The Solution. The physical location of a farm's activities should not determine whether it is a farm or a facility. Farmers working together in joint business ventures to conduct farm activities should not be considered facilities. Rather, the extent of processing should be the threshold for going from a farm to a facility, as that is a reasonable justification for additional food safety oversight.

Conclusion. These are only a few of the areas that you may want to comment on, but time is of the essence as the deadline for comments is December 15, 2014. To comment on the Produce Rule go to: http://bit.ly/produce-rule; to comment on the Preventative Controls Rule: http://bit.ly/facilities-rule. Get more information on FSMA and the issues affecting farmers on the National Sustainable Agriculture Coalition's (NSAC) web site: http://sustainableagriculture.net/fsma/. NSAC has developed a page that offers sample comments that you can customize, as well as instructions for submitting comments: http://sustainableagriculture.net/fsma/speak-out-today/#online.