USDA Agriculture Marketing Service Hearing:
Proposed National Leafy Green Marketing Agreement (NLGMA)
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Thank you for the opportunity to share Wild Farm Alliance's (WFA) perspective on the proposed NLGMA. WFA is a ten-year old organization promoting a healthy, viable agriculture that protects and restores wild Nature. We have been drawn into this debate on food safety because of the conservation conflicts occurring with leafy green production on California's Central Coast.

The marketing of leafy greens to increase sales is a fitting undertaking for USDA AMS. However, it is questionable for AMS to be involved with a program that 'markets' food safety. Inherent contradictions between food safety and marketing occur within the CA LGMA. It is instructive to review these challenges since the CA LGMA will undoubtedly be used as a model if the NLGMA is created.

The CA LGMA's unstated guiding principle is to market the perception of safe food, rather than always basing decisions on the best science. Wildlife and ecosystems have suffered when perception and science have not been aligned. The USDA NRCS and other agencies and nonprofits have invested millions in farm conservation efforts that are now in jeopardy due to the CA LGMA and third party supermetrics.

Farmers are forced to choose between buyer's demands and stewardship practices that can improve food safety. UC Davis researches have shown that grasses and wetlands have the ability to filter up to 99% of *E. coli* during rain events. [i] It has long been known that windbreaks reduce dust. This is an important function if a source of pathogenic dust, such as a cattle loafing area, is nearby. Food safety and market perception conflicts arise when wildlife are targeted because they are attracted to habitat that can help to improve the safety of food.

On the surface, the CA LGMA seems much more reasonable than supermetrics because it only focuses on "animals of significant risk," which are defined as cattle, sheep, goats, feral and domestic pigs, and deer. In reality, a critical part of their metrics refer to all "animals." [ii] [1] Growers have reported to us that auditors penalize their farms for any animals present, not just those on the significant risk list. By having this loophole, the CA LGMA can market the perception that their products are safe to many buyers who demand zero risk. Yet, there is never zero risk in Nature.

Before the unfortunate *E. coli* O157: H7 spinach contamination in 2006, auditors were inspecting leafy green fields for the presence of small animals or other foreign objects that could be caught in the harvest and end up in the bagged product. It is obviously bad publicity for mouse or frog parts to be in salad mix. A UC Cooperative Extension paper reports that to date, rodents are not a food safety issue. [iii] No studies have been done in California that shows amphibians carry human

[1] See Table 5. Animal of Significant Risk Activity in Field (Wild or Domestic) in CA LGMA metrics, July 2009

pathogens, and no one to our knowledge has been made ill from pathogens on animal parts in salad mix. Therefore, small animal parts are a food quality perception issue, not a food safety issue. But by checking for rodent and amphibian harborage using its loopholes, the CA LGMA addresses the perception that the food is safer.

In addition, the CA LGMA includes deer on their animals of significant risk list with questionable science to back it up. In April 2009, California Department of Fish and Game and collaborators released a preliminary report stating that only 0.5% of wildlife carry *E. coli* O157: H7, and that none of the 331 deer tested positive (one feral pig, two elk and one coyote did). Other studies show deer were found with 0.3, 0.6,1.8, and 2.4% of *E. coli* O157 in Nebraska, Southern States, Louisiana, and Kansas, respectively. The higher prevalence (2.4%) was found where deer and cattle intermingle. Cattle are the major source of *E. coli* O157: H7 in the landscape. For Salmonella, 1% of deer tested positive in Nebraska. [iv] Deer are not a significant risk but by including them on the CA LGMA significant risk list, it again improves the perception that the food is safer for some buyers.

One way or the other, to conserve, or to fence or destroy non-crop vegetation that may attract wildlife is costly for farmers because of misguided food safety requirements. Throughout the Spring of 2007, growers managing 140,000 acres on California's Central Coast responded to a survey conducted by the Resource Conservation District (RCD) of Monterey County (the CA LGMA began in the Winter of 2007). The farmers indicated that they have adopted environmentally destructive measures in order to comply with food safety audit requirements and keep their markets. [v] Eighty-nine percent of respondents reported that they had actively removed conservation practices for water quality or wildlife habitat. One farmer reported a $17,500 loss for deer tracks, and several others reported losses because frogs or their nearby habitat. Survey respondents that used: bare ground buffers owned/rented a total of almost 92,000 acres (65%); those that used fencing owned/rented a total of about 66,000 acres (47%). The Small Farm Center's recent cost analysis of the CA LGMA shows that farmers had an opportunity cost of 1-2% of their acreage because they were required to have a buffer between crops and environmental uses. [vi] The Center also reported that it cost about $11/acre for some of those farmers to remove noncrop vegetation, and about $17/acre to put up fences.

Excerpts below from the RCD report show that growers have serious concerns about the conflict:

> "Our experience has been that the food safety auditors have been very strict about any vegetation that might provide habitat. We are very concerned about upsetting the natural balance, but we have to comply with our shipper's requests."
>
> "There is too much fear about food safety and not enough good science. Providing habitat for wildlife is very important to me."
>
> "My concern is that they want us to kill all wildlife. This is not the threat. We all need wildlife."

Mature riparian trees 100' wide, and a mile long, on the Salinas River were removed due to food safety concerns.[vii]

No one knows for certain how the spinach was contaminated in 2006. Without concrete answers, wildlife have become easy scapegoats. Not just industry, but the FDA has made broad statements backed by faulty science. In the FDA's recent draft melon guidance, they state food safety concerns with amphibians and then cite an article about the amphibian chytrid fungus (which causes *Chytridiomycosis*), a pathogen not linked to any human health ailments. [viii]

However, in FDA's "Guide to Minimize Microbial Food Safety Hazards for Fresh Fruits and Vegetables," they make an important and reasonable distinction that is not made in the CA LGMA – proactive measures should be taken <u>when</u> there are <u>high concentrations of wildlife</u> (such as deer or waterfowl in a field), not just single animals. Risk increases when there is a large number of anything with a small risk.

Organic farmers are required to conserve biodiversity by the National Organic Program rule. The definition of organic production includes conserving biodiversity, and the Standard 205.200 requires that farmers maintain or improve the natural resources of the operation, including soil, water, wetlands, woodlands and wildlife. Several organic farmers told WFA they have had to convince their CA LGMA auditors that habitat helped to ensure food safety and that they could not remove it without fear of losing their organic status. At the May 2009 National Organic Standards Board meeting, a comprehensive plan was adopted to better ensure that biodiversity conservation takes place on organic farms; and the USDA AMS fully supported this decision.

The Central Coast Regional Water Quality Control Board requires farmers to protect water quality and has a policy to fine farmers who don't. One of the easiest ways to ensure clean water leaves the farm is to have all waterways vegetated. But as stated above, farmers are being forced to take out these water quality protections, and in addition, are contributing to the decline of the threatened Steelhead, which occurs in the Salinas River. Steelhead have many stressors, from dams and poor river habitat and water quality to overfishing; adding further pollutants from the farms without the vegetative buffers makes no sense and could push this fish closer to extirpation from the Salinas River. Besides removing habitat, farmers are poisoning frogs. No doubt these farmers do not know if they are poisoning a threatened red-legged frog or a common, invasive bullfrog.

Besides the problem of marketing the perception of safe food, the USDA should consider that fresh-cut bagged leafy greens are periodically not safe, as farmer Dale Coke mentioned and Community Alliance with Family Farmers will report later at this hearing. If the CA LGMA was working, no outbreaks would have occurred since it was instituted.

One of the most problematic aspects of a NLGMA is that it will spur the creation of a large number of supermetrics around the country. Some of the most egregious supermetrics require 450' sterile ground buffer between crops and habitat. [ix] Many of the signatories of the LGMA have their own supermetrics and many were created after the LGMA as part of a race to prove that they have the best product. We also saw the spread of food safety metrics to other crops like Brussel sprouts after the creation of the CA LGMA. Because they are proprietary the exact number is unknown.

While some of the companies who have endorsed the CA LGMA are national and/or international and must already require their farmers to conform to their supermetrics on those larger scales, many companies outside of California and Arizona have not created supermetrics. If a NLGMA were to be established, many of the new companies that sign on in the country would certainly also create their own supermetrics. Not only would this be hard on farmers to comply with multiple metrics for one harvest, but it would amplify the conservation conflicts. It should not be assumed that the supermetrics will somehow go away because the proposed NLGMA would have a larger base. If the CA LGMA was not able to control the supermetrics in CA, it can not be expected to do so nationally, without further effort.

The NLGMA should institute internal controls that do not allow the supermetrics to go above and beyond them. The USDA AMS National Organic Program can be used as a model – it only allows entities to use their seal that have equal footing. Additionally, by doing this, the supermetrics would be made transparent, which would reduce the proliferation, and ultimately reduce the cost for farmers to comply with so many standards.

The Small Farm Center's report also pointed out that the probable cost for joining the CA LGMA was on average around $100/acre (which is about 1% of the gross), with the upper end of about $150/acre. As a former small farmer, I know that expenses such as the LGMA compliance will not be passed onto the consumer but will come out of the net profit. When I mentioned this to Shermain Hardesty, the Center's Director, she made a comparison to the production of iceberg lettuce using a recent report just published by Karen Klonsky and co-authors for iceberg head lettuce. [x] She says that when comparing these LGMA costs to iceberg lettuce, the $100/acre represents 17.4% of the net returns above total costs, and the $150/acre represents 28.5% [2] Not many small farmers could make ends meet and comply with the CA LGMA at this rate.

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[2] Klonsky et al. generated 3 levels of returns for varying yields and carton prices. They assumed $50/acre for food safety program costs; the operation is 1,200 non-contiguous acres with 200 of the acres planted to iceberg lettuce. Using their mid-range values of $12/carton (gross) and 800 cartons/acre, the operation's net returns above total costs are $627/acre; these represent returns to management. A salary for the owner and management staff is not factored into their costs; the only salaries factored into the study are for machine operators and general labor. The assumed $50/acre food safety cost represents 8.0% of the net returns above total costs to $627/acre.
A $100 food safety cost represents 17.4% (100/577) of the net returns above total costs. A $150 food safety cost represents 28.5% (150/527) of the net returns above total costs.

While we do not recommend the adoption of the NLGMA, the following points will reduce its detrimental impacts:

- All appointments to the Advisory Committee, Technical Committee, and Marketing Committee should be made by the Secretary, including those made in later years when terms have expired. Otherwise the NLGMA will become an insider group.
- Ensure that concerns regarding the NLGMA not making the same mistakes with loopholes, and the definition of "animals of significant risk," (only cattle, sheep, goats, feral and domestic pigs should be included) are conveyed to the Technical Committee.
- Ensure that studies documenting non-crop vegetation filtering pathogens such as grasses and wetlands are shared with the Technical Committee so that they craft the audit metrics to encourage that these habitat components be maintained.
- Recommend to the Technical Committee that a thorough review of wildlife research related to food safety is done before species are labeled a significant risk.
- Review audit metrics yearly, instead of as few as every three years, so that newly released research is considered on a timely basis.
- Include a proportional number of organic handlers and farmers that reflects the percentage of organic leafy greens grown, so that the organic industry can protect its interests, including the conservation of biodiversity.
- Include an environmental advocate and a consumer advocate on the Advisory Committee.
- Include a representative from the US Fish and Wildlife Service, California Department of Fish and Game, and National Marine Fisheries to the Technical Committee in order to ensure that common and rare wildlife are protected.
- Include a representative from the CA EPA State Water Quality Control Board to the Technical Committee so that water quality and food safety practices are comanaged.
- Institute internal controls that do not allow the supermetrics to go above and beyond the NLGMA seal, and require that they become transparent.
- Require that all Committees use consensus minus one process (consensus minus one allows for all to have equal input, but doesn't allow one person to hold up a decision).

Conclusion

Unless a well thought out and biodiversity positive NLGMA that accommodates the needs of small farmers is created, we are opposed to this process. Besides the degradation of soil, water and wildlife habitat wherever leafy greens are grown in the US, millions of public dollars are at stake. Farmers in markets that require the LGMA and supermetrics will be encouraged to take out previously installed conservation practices and will be hesitant to put in new ones that protect our natural resources. Such misguided food safety requirements are counterproductive.

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[i] Tate, K., E. Atwill, J. W. Bartolome, and G. Naderd. 2006. Significant *Escherichia coli* attenuation by vegetative buffers on annual grasslands. *Journal of Environmental Quality* 35. Knox, A. K., K. W. Tate, R. A. Dahlgren, and E. R. Atwill. 2007. Management reduces *E. coli* in irrigated pasture runoff. *California Agriculture* 61, no. 4.

[ii] LGMA, 2009. http://www.lgma.ca.gov.

[iii] ANR UC Cooperative Extension Crop Notes Monterey County, May-June 2008.

[iv] Dunn, J., J. Keen, D. Moreland, and T. Alex. 2004. Prevalence of *Eschericichia coli* O157:H7 in white-tailed deer from Louisiana. *Journal of Wildlife Diseases* 40, no. 2 (April). Fischer, J., T. Zhao, M. Doyle, M. Goldberg, C. Brown, C. Sewell, D. Kavanaugh, and C. Bauman. 2001. Experimental and field studies of *Escherichia coli* O157:H7 in white-tailed deer. *Applied Environmental Microbiology* 67, no. 3 (March).

Renter, D., J. Sargeant, S. Hygnstorm, J. Hoffman, and J. Gillespie. 2001. *Escherichia coli* O157:H7 in free-ranging deer in Nebraska. *Journal of Wildlife Diseases* 37, no. 4 (October). Sargeant, J., D. Hafer, J. Gillespie, R. Oberst, and S. Flood. 1999. Prevalence of *Escherichia coli* O157:H7 in white-tailed deer sharing rangeland with cattle. *Journal of the American Veterinary Medical Association* 215, no. 6 (September).

[v] RCD of Monterey County. 2007. A growers survey: Reconciling food safety and environmental protection, August. www.rcdmonterey.org

[vi] Hardesty, S. D. and Y. Kusunose. 2009. Growers' Compliance Costs for the Leafy Greens Marketing Agreement and Other Food Safety Programs. UC Small Farm Program.

[vii] Baumgartner, J. 2008. Food Safety Requires a Healthy Environment: Policy Recommendations for *E. coli* O157. Wild Farm Alliance.

[viii] Daszak, P., L. Berger, A. Cunningham, A. Hyatt, D. Green, and R. Speare. Emerging Infectious Diseases and Amphibian Population Declines. www.cdc. Gov/ncidod/EID/vol5no6/daszakG3.htm and http://www.fda.gov/Food/GuidanceComplianceRegulatoryInformation/GuidanceDocuments/ProduceandPlanProducts/ucm174171.htm#prod

[ix] Schmit, J. 2006. Fresh Express leads the pack in produce safety. *USA Today*, Oct 23.

[x] Sample Cost to Produce Iceberg Head Lettuce, Central Coast Region, Monterey and Santa Cruz Counties. http://www.coststudies.ucdavis.edu/files/lettuceicecc09.pdf