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Mr. Richard H. Matthews
Chief, Standards Development and Review Branch
National Organic Program, Transportation and Marketing Programs
USDA-AMS-TMP-NOP
1400 Independence Ave., S.W. Room 4008-So. Ag Stop 0268
Washington, DC 20250

Docket Number: AMS-TM-06-0198; TM-05-14

Dear Mr. Matthews:

The purpose of this letter is to provide comments on the National Organic Program Access to Pasture (Livestock) Proposed Rule published on Oct. 24, 2008 at 73 Fed. Reg. 63584. I am a professor and extension soil specialist in the Department of Soil and Crop Sciences at Colorado State University and am the Director of the Institute for Livestock and the Environment. Since I received my Ph.D. in Soil Science from Texas A&M University in 1989, I have been doing research and teaching related to environmental impacts of livestock production (first at the University of Georgia and since 1995 at Colorado State University). I am also the Co-Director of Colorado State University's undergraduate program in organic agriculture, a 2-year old program with a current enrollment of 23 students. In addition, I currently have three graduate students working on soil fertility management in organic forage systems in the semi-arid West. Lastly, I was on sabbatical in Argentina and Uruguay in 2005 learning about pasture-based beef and dairy systems. I have reviewed the proposed regulatory language and accompanying preamble, and I am submitting my comments on the abovementioned proposed rule.



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Solving problems at the interface of livestock production and science-based environmental management

I am very concerned that this rule as written focuses too much on access to pasture and, in so doing, has lost its basis in the fundamentals of organic agriculture. The organic agriculture approach is based on the writings of Sir Albert Howard (An Agricultural Testament written in 1940) who was the first to write about the importance of healthy soil as the foundation for healthful plants which are the basis for animal health and welfare and ultimately healthful milk and meat products. The requirements for access to pasture 365 days a year and sacrificial pastures will lead to soil degradation, thus damaging the foundation of the sustainable organic agriculture system.

I understand that the idea of sacrificial pastures is meant to sacrifice land in order to protect other land unsuited to grazing, for example, under wet conditions. It is a well-known fact that animal trampling of a wet pasture will quickly lead to soil compaction which decreases root vigor and plant health. Soil compaction results in reduced soil porosity which limits the movement of water and air within the soil and increases the resistance to root penetration (Wolkowski, 1990). Thus, compaction commonly results in reduced root growth, leading to decreased water and nutrient uptake, and ultimately diminished crop yields (Oussible et al., 1992; Unger and Kaspar, 1994). The shearing and kneading action of animal hooves leads to deformation of soil structure which increases the erodibility of the soil (Krommelbein et al., 2008). Even in New Zealand and Australia, where pasture-based systems are common, animal treading has been shown to result in soil compaction and physical deterioration (Drewry, 2006). Ultimately, the plants will be trampled into the mud, and within very few days, the “pasture” will in reality be a drylot. Wouldn't a better solution be to have a drylot available for use in inclement weather?

In order to restore the soil quality and re-establish plant growth on a sacrificial pasture, no less than four tractor passes will be required to deep chisel, disc, cultipack, and finally re-seed the pasture. In this manner, organic farmers will be utilizing additional fossil fuels and emitting greenhouse gases from both the tillage operations and the soil itself, since it has long been known that tillage reduces soil organic matter and carbon sequestration (Whiteside and Smith, 1941). Tillage management not only affects the quantity of soil organic matter but also alters the physical and chemical properties of the organic matter (Ding et al., 2002; Sleutel et al., 2007). Soil organic matter is the basic building block of soil quality, and this practice of using sacrificial pastures will first damage soil quality by compaction and then secondly through tillage to break up the compaction. If soil quality is the foundation of organic agriculture, why would this kind of management be required in the NOP standards? Organic farmers and livestock producers can do better than this if given the freedom to optimize soil quality for their specific soils and climatic conditions.

Secondly, I am concerned that the sacrificial pastures (when they are trampled and essentially become drylots) will lead to water quality degradation. Since these organic, pasture-based operations as defined in the proposed rule will not officially have drylots, they will not be considered Animal Feeding Operations and will not be required to abide by the Clean Water Act. However, after use of the sacrificial pastures leads to their conversion to drylots, there will be great potential for runoff from these areas; but since they are not officially drylots, the runoff storage structures required by the Clean Water

Act will not be in place, and the runoff is likely to leave the farm and impact the quality of waters of the United States.

Third, while I appreciate the intention of fencing animals out of surface water bodies to protect water quality, this practice is not required by the Clean Water Act in areas where animals graze, but only in drylots. Has this requirement been discussed with the EPA so that these discrepancies can be corrected? In the western U.S., I expect that this requirement alone will eliminate more than 50% of currently-certified organic livestock operations.

Fourth, this regulation seems to provide preference for livestock producers in parts of the U.S. where the weather allows for year-round grazing without hurting animal welfare. My colleagues, Dr. Temple Grandin and Dr. Bernard Rollin, are internationally renowned in animal welfare, and they have submitted letters to you addressing their concerns that these requirements will reduce animal welfare on organic farms, which is clearly not the intent of the law or the authors of it. I am not an expert in animal welfare, but submit to their expertise along with veterinarian Dr. Noa Roman-Muñiz and nutritionists Dr. Shawn Archibeque and Dr. Nancy Irlbeck, who have also sent you letters from Colorado State University which document the specific animal health issues of udder edema, teat frostbite, inadequate caloric consumption, and ketoacidosis that are likely to occur under the requirements for year-round grazing and the 3% body weight feeding guidelines. These animal health and welfare concerns, combined with the natural resource concerns that I have described above and others as detailed in letters from forage specialist Dr. Joe Brummer and rangeland ecologist Dr. Paul Meiman reinforce the fact that these regulations, if implemented, will unfairly reduce the competitiveness of western farmers and ranchers in organic milk and meat production. This point is also reinforced in economist Dr. Dawn Thilmany's letter.

I suggest that value-added labeling for grass-fed or pasture-raised animals be used as additional labels, not engulfed in the organic program. This will allow farmers to identify themselves as different and compete for the consumers that prefer those criteria over others. Let's consider these as separate certifications and allow producers to use their ingenuity to sell to niche-markets.

I encourage you not to prescribe how organic producers all over this diverse United States should achieve soil quality, animal health and welfare, and ultimately produce competitive organic products, but to regulate instead that they do achieve these goals. Scoring for body condition and lameness or certification by animal welfare groups would be much better measures of animal welfare than requiring year-round grazing. Water quality and riparian area standards could also be implemented to assure that water is protected. These are the real goals of the program, in my opinion, and the means to achieve these goals should not be prescribed by the federal government. Please allow the organic farmers and ranchers of these diverse United States to use their intimate knowledge of local ecosystems and their creativity to achieve the end goals of organic agriculture built on high-quality soils.

Thank you for considering these comments and the other concerns of Colorado State University scientists in the revision of the National Organic Program Access to Pasture Proposed Rule.

Sincerely,



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