To Whom It May Concern:

The Vermont Department of Agriculture has asked the Food and Drug Administration to comment on the acceptability of the use of forage and grain harvested from flood damaged fields. A significant amount of flooding occurred in grain and other crop fields in Vermont as a result of excessive rain from Hurricane Irene. The rains from the hurricane immersed crops. This letter addresses the use of these crops for animal feed. FDA's Center for Food Safety and Applied Nutrition will comment separately on the acceptability of these crops for human food.

As currently harvested, these crops would not be acceptable for use in animal feed. The flood water may contain sewage, pathogenic organisms, pesticides, chemical wastes, or other toxic substances. Even more serious is the mold growth which may occur in wet foods. Certain molds produce mycotoxins which are toxic or carcinogenic to certain animals including man, and if present in animal feed, can result in the presence of unsafe residues in foods produced by the ingesting animal.

To even be considered for use in animal feed, these crops should go through some kind of cleaning and heat treatment or drying process. In addition, as a minimum, the material should be tested for the following:

1. Mycotoxins to include at least aflatoxin, fumonisin, vomitoxin, zearalonone, and ochratoxin. [Mycotoxins should not be present above guidance levels found on FDA's website.]

2. Heavy metals, with emphasis on cadmium, mercury, and lead. [Maximum acceptable levels for these metals in complete animal feeds are available in the NAS/NRC "Mineral Tolerance of Domestic Animals".]

3. Presence of certain pathogenic bacteria and their toxins, especially Salmonella, E. coli 0157:H7, and Clostridium perfringens and botulinum. Heat treatment should have been sufficient to destroy pathogenic organisms.

4. Pesticides, with particular emphasis on organophosphate and chlorinated hydrocarbon pesticides. [Information on multi-residue pesticide test screens and permitted pesticide levels on food and feed is available on FDA's website.]

If the above criteria are followed, FDA, Center for Veterinary Medicine (CVM), intends to consider unnecessary the submission of a diversion request as outlined in FDA's Compliance Policy Guide 675.100 (CPG 7126.05) and 675.200 (CPG 7126.20) for the use of these flood damaged crops in animal feed. However, the Vermont Department of Agriculture should be notified of any attempt to clean, process, test, and sell or use these crops in animal feed. CVM will be available for consultation with Vermont if needed.

Additional testing of specific industrial or environmental contaminants may be required as information on the industries and facilities located near crops in affected areas becomes available.

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