

AFSS Component #2 – Limits for Animal Feed Contaminants



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Outline

- AFSS Framework Component #2: Limits for Animal Feed Contaminants
 - Objective and Scope
 - Gaps
 - What contaminants?
 - For what purpose?
- New Definition for “Risk-Based”
- Comments on Risk Issues

Limits for Animal Feed Contaminants

- Objective of AFSS Component #2:
To use risk-based mechanisms to identify and develop limits for potentially hazardous contaminants in animal feed and feed ingredients



Limits for Animal Feed Contaminants

- **Scope of AFSS**
Component #2:
Contaminants are toxic or deleterious biological, chemical or physical hazards that are inadvertently present in animal feed and feed ingredients.



Limits for Animal Feed Contaminants

- **Component #2 does apply to**
 - Contaminants that may be inadvertently added to animal feed during its manufacture (e.g., dioxins created by heating the ingredients used to manufacture chelated minerals, especially copper)
- **Component #2 does not apply to**
 - Unapproved or prohibited feed ingredients and
 - Expected contaminants in approved feed ingredients that are residues of starting materials or breakdown products produced during manufacture (Component #1)

Limits for Animal Feed Contaminants

- Gaps for Framework Component #2
 - Gap #1: Risk ranking will be used to help determine which contaminants present the greatest risks to animals and humans and to help decide how best to prevent, eliminate or control those risks.
 - Comments: Risk ranking should be done only for segments of the feed industry that are not now controlled by cGMPs and should specify the process steps associated with risk

Limits for Animal Feed Contaminants

- Gaps for Framework Component #2 (cont.)
 - Gap #2: Validated test methods for some feed contaminants may need to be developed.
 - Comment: Gap #2 should recognize that rapid, inexpensive and reliable test kits for monitoring feed and feed ingredients for most hazards are either not available or not validated.

Limits for Animal Feed Contaminants

- Gaps for Framework Component #2 (cont.)
 - Gap #3: By ranking the risks of potential agro terrorist agents that can be added to animal feed, AFSS can work with USDA to improve methods of preventing, coordinating responses to, and investigating terrorist incidents involving the deliberate contamination of feed or feed ingredients with exotic animal diseases.
 - Comment: One comment agreed

Limits for Animal Feed Contaminants

Which Feed Contaminants?

- Biological – Examples:
 - Bacteria such as *Salmonella*, *E. coli*, *Staphylococcus* and *Clostridia*
 - Insects such as the blister beetle
 - Transmissible spongiform encephalopathies such as BSE and CWD



Limits for Animal Feed Contaminants

Which Feed Contaminants?

■ Chemical – Examples:

- Drugs approved for use in animal feed
- Mycotoxins such as aflatoxin and fumonisin
- Environmental contaminants such as pesticides, dioxins, PCBs, radionuclides and heavy metals

■ Physical – Examples:

- Bone, glass, metal, plastic



Limits for Animal Feed Contaminants

■ For what purpose?

- Determine which feed contaminants present the greatest risks to animals and/or humans
- Decide how risks from contaminants can best be prevented or controlled:
 - *Do limits for higher-risk contaminants need to be identified? If yes, which contaminants?*
 - *Do analytical methods for higher-risk contaminants need to be developed?*
 - *What process changes can feed manufacturers make to reduce risks from contaminants?*

Risk-Based Definition

■ Definition of Risk-Based (March 2004)

“...risk is a function of the likelihood of human or animal exposure to deleterious amounts of such hazards in feeds, and the significance of the health consequences in response to those exposures....”*

* See folder for complete definition

Risk-Based Definition

- Comments on the definition of risk-based
 - The definition should reference non-regulatory approaches for addressing feed safety issues, such as guidance, education, etc.
 - The definition is unclear; what does “risk is a function of (exposure) and (hazard)” really mean in lay terms?

Risk-Based Definition

- Amended Definition of Risk-Based (March 2005)

“...the risk resulting from the presence of these hazards in feed is some combination of the likelihood of human and animal exposure to the feed hazard and the significance of the health consequences in response to such exposures....”*

* See folder for complete definition

Some Comments on Risk Issues

- How would a risk-based approach affect some states' focus on consumer protection (economic protection)?
- Risk ranking will be difficult, time-consuming, expensive, and hampered by insufficient data, such as the data linking Salmonella contamination of feed with human illness
- Risk ranking will result in a requirement that feed manufacturers test for more contaminants
- Comments differed about whether risk ranking should focus on human risks, or on risks to humans and animals

THE END

