



## Recycled Organic Waste as Animal Feed: A Recommendation for Regulatory Programs to Address Current Information Gaps

*Produced by: the Partnership for Food Protection National Workplan Workgroup*

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**Background:** The use of waste from food manufacturing processes in animal feed is not a novel concept. Food waste materials have been handled as residual wastes until beneficial uses as animal feed ingredients were found and established through FDA's feed additive approval and General Recognized as Safe (GRAS) processes, Association of American Feed Control Officials (AAFCO) definitions, or other accepted or recognized processes. For many years, food wastes have also been fed to swine following the requirements and treatment specifications of USDA's Swine Health Protection Act and State Domestic Animal Law provisions.

Recently, State Veterinarians and State Feed Program Managers have been approached by waste management firms that intend to use recycled organic waste from large wholesalers, distributors, and retailers as animal feed. Recycled organic waste is out-of-date or expired product that is disposed of by food wholesalers, distributors, and retailers and can include organic materials such as bakery products, cheese, eggs, yogurt, ice cream, produce (fruits and vegetables), and other organic materials such as flowers, herbs, and potted plants. The firms place bins for recycled organic waste at food store locations and store personnel are responsible for putting out-of-date organic waste into the bins. In practice, any packaging associated with a product, such as plastic wrapping, Styrofoam, or cardboard, is removed prior to placement in the designated bins. The recycled organic waste is intermixed in the bins and not segregated. A waste management firm picks up the recycled organic waste on a pre-determined interval with the minimum being weekly. The material is vacuumed from the bins and transferred into a truck for delivery. On occasion, the recycled organic waste may undergo processing, such as grinding, after vacuum removal and prior to delivery to a farm. The material is then transported to a participating farm and typically dumped onto a concrete pad to be mixed directly, without further processing, into a total mixed ration (TMR) that contains other feedstuffs or is fed directly to livestock.

There is the potential for the recycled organic waste to be adulterated by any number of contaminants including microbial pathogens, packaging hardware, or herbs, flowers, and domestic house plants that are toxic to animals. There are multiple factors that may introduce potential contaminants into the recycled organic waste. Several environmental factors may have an impact on potential microbial pathogen loads. Retailers may mistakenly introduce contaminants by co-mingling salvageable material with non-salvageable materials. For example, mammalian material, such as beef, is prohibited from being fed to ruminant animals and should not be included in recycled organic waste intended to be fed to ruminant animals. Sanitation protocols, related to how a product is held and shipped, may not be established or followed. Firms may lack capacity to analyze the material to determine if mycotoxins are associated with any molds found in the recycled organic waste. The extent to which recycled organic waste is fed to animals is currently unknown, but there is a potential for this to be or become a significant practice, potentially on a national scale. Based on these considerations, feed safety associated with this new practice is a concern.

**Issue:** At this time, there is limited information to determine whether the practice of feeding recycled organic waste from wholesalers, distributors, or retailers poses a threat to the animal feed supply. Information is needed for regulatory officials to assess the current practice in their jurisdiction to

determine the extent of the practice and whether current practices pose risks to the feed supply. The following are recommended steps for regulatory officials to take to address the current knowledge gaps.

**Program Goal: Assessing Information Gaps for Feeding Recycled Organic Waste**

- Assessment of the prevalence and the scope of using recycled organic waste from wholesalers, distributors, and retailers as animal feed
- Assessing information on the types of animal species being fed recycled organic waste and the potential feed safety issues for those species
- Assessing information on what products are being recycled and whether those products are being separated from non-salvageable material or further processed prior to incorporation into feed

**Recommendations for Regulatory Programs to Address Information Gaps**

1. Select Appropriate Firms to Determine Extent of Salvage Practices  
*Food wholesalers, distributors, and retailers may be recycling organic waste on a national basis. There is information to support that some large stores have implemented this practice. Consider large grocery retailers, warehouses, wholesalers, and food service firms when selecting firms.*
2. Observations at the Firm  
*Attachment 1 provides an example list of questions or observations to document that will assist the regulatory program in determining the extent to which recycled organic waste is salvaged, the use of recycled organic waste in the feed supply, and potential feed safety concerns.*
3. Sample Collection  
*A regulatory program determines whether it has the authority to conduct sample collection at the firms and whether the sampling fits within the program's workplan and sample collection priorities.*
4. Analytic Analysis  
*If samples are collected, the regulatory program determines whether to conduct laboratory analysis and if so, what analysis would be appropriate.*
5. Regulatory/Administrative Follow-up  
*If participating entities determine that there is either a feed safety or regulatory concern, they will communicate this information to other appropriate regulatory officials, as necessary. In addition, they will consider conducting a formal inspection, where appropriate in coordination with FDA, development of new industry guidance, and working with regulatory partners, such as state and federal governments, to develop requirements for recycled organic waste.*

## **Attachment 1: Example list of Observations and Information to Collect at Firms to Determine Extent of Recycled Organic Waste as Feed Practices**

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1. Does the firm have a standard operating procedure (SOP) describing their in-house recycled organic waste process?
  - a. If yes, it is recommended to collect a copy of the SOP if possible
  - b. If no, document the firm's current process
2. Does their recycling process mention specific handling instructions for pet food or specialty pet food?
  - a. If yes, what are those processes?
3. Collect the contact information for the firm's point of contact.
4. Observe what recycled organic waste, including food and feed products, are being thrown away.
5. Determine if there is separation for food products that contain meat.
6. Observe how a firm disposes of pet food and specialty pet food.
7. Observe how the firm ensures separation of plastic, metal, and other potential adulterants from the recycled organic waste intended to be fed to animals.
8. Is the recycled organic waste bin(s) labeled?
  - a. If yes, what information is contained on the label?
  - b. Is it possible to take a picture of the label?
9. Determine who owns the bin(s) used to collect the recycled organic waste at the firm.
10. Who is responsible for supplying the recycled organic waste bins at the firm?
11. Recycled organic waste bin security observations
  - a. Where is the bin located? (e.g. parking lot behind store, visible, on main street)
  - b. Is physical access to the bin limited? If so, how?
  - c. Is the recycled organic waste bin itself secured? If so, how?
  - d. Is bin access limited to authorized personnel?
    - i. How are they identified as opposed to unauthorized personnel?
    - ii. Are they trained? If so, how?
    - iii. Is the training documented?
    - iv. If possible, speak with one of the "authorized personnel" to gain understanding of their level of training or awareness of potential security issues.
12. Is there a procedure for cleaning the recycled organic waste bin?
  - a. If yes, obtain a copy of this procedure if possible.
  - b. If no, document the firm's process.
  - c. Determine who is responsible for cleaning the bin, if anyone.

13. Determine who collects the recycled organic waste from the firm.  
*Note: This information should be specific, as in most instances, this responsibility would be associated with the “transporter.” The transporter is not necessarily associated with the same party that is contracted with the firm from which the recycled organic waste is collected. If the transporter is owned independently of the firm, collect contact information for the transporter and contract firm.*
14. How often are the recycled organic waste bins collected?
  - a. What is the agreement with the collection contractor (noting that this entity may not be the same as the transporter“)?
  - b. Does the firm collecting (transporter) the bin or its contents have a written agreement with the store or with the contract holder?

#### **Observations and Information Collection Associated with Transporters of Recycled Organic Waste**

1. Determine the type of bin that is used to collect the recycled organic waste.  
*Note: Depending on the volume collected at the site, the size of the container could range from a roll-off dumpster to a tote or garbage can that can be loaded into a pick-up truck. Store site containers may leave the site or be emptied into a transport container at the store site.*
2. Assess who cleans the transported bins.
3. Determine if the transporter has written procedures for cleaning the bins.
4. Determine if the transporter has written procedures for cleaning transport vehicle and equipment.