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## Guidance

### Processed Animal Manures in Organic Crop Production

#### 1. Purpose

This guidance explains the policy for the use of heat processed animal manures in crop production operations certified as organic under the National Organic Program (NOP). This policy does not supersede requirements of other Federal and State laws and regulations. However, written procedures and records prepared by producers to meet NOP requirements may be the same as those prepared to meet other regulatory requirements.

#### 2. Scope

This guidance applies to all organic crop producers. This guidance does not apply to compost teas or other products that may contain raw or composted manure.

#### 3. Background

The NOP regulations require that uncomposted animal manures be applied at least 90 days prior to harvest for crops whose edible portions do not come in contact with the soil and at least 120 days prior to harvest of crops whose edible portions do come in contact with the soil. However, while the regulations do not place the same restrictions on properly composted animal manures, the regulations do not address heat processed animal manure products and their proper use in organic production. In the past, the NOP had determined that processed manures, since they had not been composted according to the NOP regulations, would fall in the category of uncomposted manure products for the purpose of determining any restrictions which should be placed on their use in organic production.

At its September 2006 meeting, the National Organic Standards Board (NOSB) made a recommendation regarding the use of processed animal manures in organic farming operations. In its recommendation, the NOSB said that when animal manures are treated to a certain temperature over a given period of time and then subsequently dried to a very low moisture level, the resulting product should fulfill the pathogen reduction requirements imposed on compost in the NOP regulations. Therefore, the NOSB recommended that the NOP issue guidance to the effect that processed manure products that meet prescribed minimum time, temperature, and moisture requirements, or processed manure products that have the same level of pathogen reduction as the prescribed process, should be allowed for use without pre-harvest time restrictions.

In reviewing the NOSB's recommendation, NOP officials met with manufacturers of processed manure products and reviewed facilities used to produce these products. We also met with representatives of the Organic Materials Review Institute (OMRI) to discuss current practices for the use of these products in organic agricultural production. In addition, we reviewed and considered the Compost Task Force Recommendation dated April 18, 2002.



Upon completion of our review of the recommendation, task force report, supporting documentation, site reviews, and industry consultations, the NOP finds that it concurs with and accepts the NOSB's recommendation to remove the time restrictions previously imposed on processed manure products and allow the unrestricted use of processed manure products when prepared in accordance with the guidelines in this document. We noted, however, that the NOSB placed a more restrictive annotation on the use of the processed manure, requiring that post-planting applications be applied below the surface of the soil.

Our review of the task force report indicated that such restrictions may not be necessary, so we have not incorporated that additional restriction into this operational policy.

We also noted that the NOSB recommendation specified a minimum temperature for the product to be held for at least one hour without prescribing a minimum time for continuous flow processes. In consulting with OMRI, we learned that achieving at least 165 degrees Centigrade in a continuous flow process will achieve the necessary pathogen reduction, so we added that option to the criteria for an acceptable process.

Finally, we noted that the NOSB recommended that processed manure test negative for the presence of *Salmonella* and fecal coliform organisms. In considering this element of the recommendation, neither the product manufacturers nor OMRI found this to be a practical requirement but agreed that a very low level of pathogens could be reasonably accomplished with the prescribed process. Therefore, in developing the policy for processed manures, we used the very low microbial counts consistent with current industry practice, which could be used to indicate a sufficient level of pathogen reduction.

#### **4. Policy**

Processed manure may be used as a supplement to a soil building program without a specific interval between application and harvest. As always, producers are expected to comply with all applicable requirements of the NOP regulations with respect to soil quality, including ensuring the soil is enhanced and maintained through proper stewardship.

Processed manure products must be treated so that all portions of the product, without causing combustion, reach a minimum temperature of either 150° F (66° C) for at least one hour or 165° F (74° C), and are dried to a maximum moisture level of 12%; or an equivalent heating and drying process could be used. In determining the acceptability of an equivalent process, processed manure products should not contain more than  $1 \times 10^3$  (1,000) MPN (Most Probable Number) fecal coliform per gram of processed manure sampled and not contain more than 3 MPN *Salmonella* per 4 gram sample of processed manure.

#### **5. References**

##### **NOP Regulations (as amended to date)**

7 CFR § 205.203 Soil fertility and crop nutrient management practice standard.

##### **NOSB Recommendations**



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April 2002, [Crops Committee Compost Tea Task Force Final Report.](#)

September 13, 2006. [Crops Committee, Recommendation for Guidance for Use of Compost, Vermicompost, Processed Manure, and Compost teas.](#)

Approved on July 22, 2011