



Guideline No 6 use of animal manure

TS06(NOP)V06en



According to the USDA National Organic Program (NOP)



**This guideline does not replace the current Regulation.
It provides some explanations on main requirements for organic handling and labeling.
To know the main organic requirements, it is necessary to download and read carefully
the NOP Regulation available on the USDA website:**

<http://www.ams.usda.gov/AMSV1.0/NOP>

I. INTRODUCTION (§205.203)

The NOP requests organic producers to manage soil fertility, amongst others, by the application of plant and animal material.

This material must be used in a manner that does not contribute to contamination of crops, soil, or water by plant nutrients, pathogenic organisms, heavy metals, or residues of prohibited substances.

In order to assure this, the manure must either be regularly composted or processed, or applied with a proper delay before harvest.

II. COMPOST AND PROCESSED ANIMAL MANURE

A. Compost according to NOP (§205.2)

- **Definition:** Compost is the product of a managed process through which microorganisms break down plant and animal materials into more available forms suitable for application to the soil.
- Compost must be produced through a process that **combines plant and animal materials with an initial C: N ratio¹ of between 25 and 40.**
- Producers using an in-vessel or static aerated pile system must maintain the composting materials at a temperature between 131°F (**55°C**) and 170°F (**77°C**) **for 3 days.**
- Producers using a windrow system must maintain the composting materials at a temperature between 131°F (**55°C**) and 170°F (**76°C**) **for 15 days**, during which time, the
- materials must be turned a minimum **of 5 times.**

B. Processed animal manure

- Additionally to the NOP composting requirements, the USDA decided in July 2007 to allow also the application of processed animal manures without pre-harvest time restrictions when the following conditions are met: Processed manure products must be treated so that all portions of the product, without causing combustion, reach a

¹ The C: N ratio of organic matter means the amount of carbon (C) relative to the amount of nitrogen (N) present. There is always more C than N in organic matter. For example if the ratio is 20, this means that there are 20 grams of C for each gram of N. So if the number is low, it means that the amount of C is reasonably similar to the amount of N.

If the ratio is a large number, it means that there is considerably more carbon than nitrogen. And, when organic matter is incorporated into soils, the microorganisms can access N in soil more easily than plants can, so the plants sometimes miss out.

This is why incorporating organic matter that has a high C: N ratio will probably cause N deficiency in the crops/plants.



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 1×10^3 (1,000) MPN (Most Probably Number) fecal coliform per gram of processed manure sampled and not contain more than 3 MPN Salmonella per 4 gram sample of processed manure.

C. Implications

- When operators want to use compost or processed animal manure on their organic fields without respecting a delay before harvest, **they have to demonstrate its compliance with the above-mentioned rules to ECOCERT by recording the C: N ratios, temperatures, durations, systems used, moisture levels, etc.**
- These will be verified during on-site inspection.

III. RAW ANIMAL MANURE

When the operator prefers to use **raw animal manure (or the composting rules are not fully complied with)**, the following conditions, depending on the type of crop, must be respected:

1. Crop not intended for human consumption: it can be applied **at any time**.
2. Edible portion of the crop has direct contact with the soil (like carrots): **it must be incorporated into the soil at least 120 days prior to harvest**.
3. Edible portion of the crop does not have direct contact with the soil (like apples): it must be incorporated **into the soil not less than 90 days prior to harvest**.

You will find all information about the NOP on the USDA-NOP homepage:

<http://www.ams.usda.gov/AMSV1.0/nop>

You will find more information on **ECOCERT** homepage: www.ecocert.com (certification, certified inputs, other activities); If you need further information, we are at your disposal for technical questions.

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