# Soil Amendments

Soil amendments are any chemical, biological, or physical materials intentionally added to the soil to improve and support plant growth and development. The *Produce Safety Rule* focuses on untreated biological soil amendments that come from animals. This is because they present the highest public health risk.

## **Untreated soil amendments**



Untreated biological soil amendments of animal origin are considered high risk since they have not been treated to reduce or eliminate pathogens. These soil amendments are considered untreated:

- Raw manure
- "Aged" or "stacked" manure
- Untreated manure slurries
- Untreated manure teas
- Agricultural teas with supplemental microbial nutrients
- Any soil amendment mixed with raw manure

# **Treated soil amendments**

Composting must use one of these scientifically valid processes:

- Aerated static composting: aerobic, minimum of 131° F (55° C) for three days, followed by curing with proper management to ensure elevated temperatures throughout all materials
- Turned composting: aerobic, minimum of 131° F (55° C) for 15 days, minimum of five turnings, followed by curing
- Other scientifically valid controlled composting process: must have proof that process properly reduces or eliminates pathogens

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## **Minimum application intervals**

The *Produce Safety Rule* currently does not include application intervals for raw manure.

- Untreated soil amendments: The Food and Drug Administration (FDA) is currently doing research to support application intervals for raw manure. Information will be available to produce growers in the future.
  - » Raw manure must not contact the harvestable portion of the crop.
- **Treated soil amendments:** There is a zero-day application interval for compost treated by a scientifically validated process.
  - » Harvest produce the same day the treated soil amendment is applied.

### **Keep records**

Required (on-farm composting)	Required (supplied by a third party)
Time	Name and address of the supplier
Temperature	What soil amendments were purchased
Turnings	Date and amount purchased
Other processing steps, including curing	Lot information, if available
	Supplier information indicating that they used a scientifically validated treatment process including monitoring during the production of the treated amendment
	Supplier information showing that proper handling requirements were met



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