



## Compost Delivery, Stockpiling & Handling

### Good Neighbor Compost Handling

As we begin to prepare our fields for the upcoming produce season, the use of composts or other soil amendments is likely. Let's review some AZ LGMA Guidance & metrics regarding the use of soil amendments or equipment that may have encountered potential sources of contamination.

- Do not store manure or compost near sources of irrigation water.
- Use soil amendment application techniques that control, reduce, or eliminate likely contamination of surface water and/or edible crops of all types being grown in adjacent fields.
- Minimize the proximity of wind-dispersed or aerosolized sources of contamination that may potentially contact growing crops.
- Prevent cross-contamination of in-process and finished compost (stored and/or stockpiled in temporary handling areas).
- Develop and implement appropriate means of reducing and controlling the possible transfer of human pathogens to soil and water that may directly contact edible lettuce/leafy green tissues with equipment.

Soil amendments, such as compost, are commonly but not always incorporated prior to planting into agricultural soils to add organic and inorganic nutrients to the soil and to improve the physical, chemical, or biological characteristics of soil. Occasionally it may be necessary to stockpile or provide a temporary handling area for compost or other soil amendments prior to application to the soil due to supply, delivery concerns, or application timing on the farm.

Human pathogens may persist in biological soil amendments of animal origin (BSAAO) for weeks or even months. Proper composting of BSAAO's will reduce the risk of potential human pathogen survival. Although human pathogens do not persist for long periods of time in high UV index and low relative humidity conditions, they may persist for longer periods of time within aged manure or inadequately composted soil amendments. There is some new research evidence that there may be a characteristic and prolonged low-level survival of some human pathogens in properly treated soil amendments.

If you would like more information on the Arizona LGMA and metrics topics, feel free to contact us.

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Take a moment to consider how your farm practices may affect your fellow farmers, irrigation water supplies and the industry! Let's all be good neighbors!

For links to research on pathogen survival in soil amendments visit these sites:

[Article 12 - Food safety focus: Turning up the heat on composting | Center For Produce Safety | Knowledge Transfer Task Force Articles](#)

[Pathogen physiological state has a greater effect on outcomes of challenge and validation studies than strain diversity \(centerforproducesafety.org\)](#)

[Survival of pathogenic bacteria in compost with special reference to Escherichia coli - PubMed \(nih.gov\)](#)

[Importance of Soil Amendments: Survival of Bacterial Pathogens in Manure and Compost Used as Organic Fertilizers - PubMed \(nih.gov\)](#)

[Environmental effects on the growth or survival of stress-adapted Escherichia coli 0157:H7 and Salmonella spp. in compost. | Center For Produce Safety | Research Project](#)

AZLGMA metrics require members implement an SOP regarding storage and application controls that establishes management controls that significantly reduce the likelihood that soil amendments being used may contain human pathogens. SOP must address the following:

- Supplier Approval
- Source & Quality of the amendment
- Delivery & Transport
- Surplus & Unconsumed inventory
- Length of Storage & Storage location prior to crop application
- Timing of application in the crop cycle and processes used for application.
- Weather events (wind, rain & water runoff)
- Potential for animal intrusion while on farm
- Visitor & Employee movements
- Vehicle Traffic

When compost is stockpiled and/or adjacent to covered produce/lettuce and leafy greens production areas perform a risk assessment based on the type and stage of crop per the adjacent land use section.

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