

Economics of Composting & Compost Application

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Economics of Composting

“Manure is a headache that many livestock operators wish would just go away.”

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Economics of Composting

“Manure is a headache that many livestock operators wish would just go away.”

“You can spend a lot of time and money composting, but you can spend a lot on chemical fertilizers too.”

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Economics of Composting

“Manure is a headache that many livestock operators wish would just go away.”

“You can spend a lot of time and money composting, but you can spend a lot on chemical fertilizers too.”

“Composting adds diversity to my operation. It’s a potential revenue source that can increase income without having to increase acres.

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Topics to be covered

- **Why compost?**
- **Equipment and equipment costs**
- **Case studies: How composting fits into the operation of three producers.**

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Why compost?

- **Reduce chemical fertilizer costs**
- **Reduced transport costs**
- **Potential revenue source**
- **Superior quality & soil health benefits**

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Compost reduces fertilizer costs – AND benefits soil

	Nutrient content (lb/ton compost)	Price of chemical fertilizer (price/lb)	Nutrient value (per ton compost)
Nitrogen	20	\$0.27 - 0.38	\$5.40 - \$7.60
P ₂ O ₅	16	\$0.41	\$6.56
K ₂ O	22	\$0.28	\$6.16
		Total	\$18.12 - \$20.32

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Compost reduces fertilizer costs – AND benefits soil

- Reduce chemical fertilizers expenses by 50%

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Compost reduces fertilizer costs – AND benefits soil

- Reduce chemical fertilizers expenses by 50%
- **“If the cost of make and applying compost is less than the cost of an equivalent amount of chemical fertilizer, then the decision is a no brainer.**



Compost reduces fertilizer costs – AND benefits soil

- “If the cost of make and applying compost is less than the cost of an equivalent amount of chemical fertilizer, then the decision is a no brainer.”
- **“Even if I am just breaking even, it is worthwhile because I know compost is bringing benefit to the soil that chemical fertilizer does not.”**

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Composting reduces hauling costs

- **“The economics of composting really boils down to freight.”**

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Composting reduces hauling costs

- “The economics of composting really boils down to freight.”
- **“Essentially, producers can haul compost twice as far as manure for the same money.”**

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Compost offers a potential source of revenue

Composting offers the potential to diversify operations. For some producers, it could be a niche that provides an additional avenue for earning revenue.

Superior Quality of Compost

- **Reduces the number of viable weed seeds and soil pathogens**

Superior Quality of Compost

- Reduces the number of viable weed seeds and soil pathogens
- **Improves planting ease**

Superior Quality of Compost

- Reduces the number of viable weed seeds and soil pathogens
- Improves planting ease
- **Uniformity**

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Soil Health Benefits

- **Compost amendment supported high yield and at the same time increased soil organic matter.**



Soil Health Benefits

- Compost amendment supported high yield and at the same time increased soil organic matter.
- **Chemical fertilizer and raw dairy manure produced high yields but did little or nothing to improve the soil.**



Why is organic matter a big deal?

- **Serves as a buffer for crop production systems during extreme conditions.**



Why is organic matter a big deal?

- Serves as a buffer for crop production systems during extreme conditions.
- **There is always mineralization going on.**

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Thank you!