

Composting Benefits and Disadvantages

Why Should We Compost?

Composting turns animal waste into a product that is easier to handle and provides the possibility of a saleable product. But, composting is a commitment that requires resources and time to manage the process.

Benefits	Disadvantages
<ul style="list-style-type: none"> • Saleable Product • Destruction of pathogens • Kills weed seeds • Reduces mass and volume • Improved handling • Improved transportability • Soil conditioner • Reduces odour • Land application when convenient • Improves nutrient qualities • Decreases pollutants 	<ul style="list-style-type: none"> • Loss of ammonia (N) • Time involved • Cost of equipment • Land required • Marketing required for sale

Composting Benefits

<i>Saleable Product</i>	Compost is a marketable product. Gardeners, landscapers, farmers, sod producers, golf course operators, and others are willing to purchase quality compost. Price depends on the local market, quality of compost, and the raw materials used.
<i>Destruction of Pathogens</i>	Pathogens are destroyed in a properly managed windrow if the temperature remains above 40°C for a minimum of two weeks.
<i>Kills Weed Seeds</i>	Windrows maintaining temperatures of 40°C for a minimum of two weeks destroy the viability of weed seeds.
<i>Reduces Mass And Volume</i>	The mass and volume of the manure is reduced when composted primarily due to moisture content reduction.
<i>Improved Handling</i>	Composting reduces the moisture content making it easier to handle than manure. Compost does not have the odours or fly problems associated with raw manure.

<i>Improved Transportability</i>	The reduction in mass and volume due to composting increases the distance land applied nutrients can be hauled economically.
<i>Soil Conditioner</i>	Compost, when added to soil, provides organic matter, reduces potential for soil erosion, and reduces fertilizer requirements.
<i>Reduces Odour</i>	Composting releases ammonia which reduces the odour emitted. Compost is a stable product which is free from offensive odours.
<i>Land Application When Convenient</i>	Compost can be stored without odour or fly problems and is a product which can be applied to the land when it is convenient for the farmer.
<i>Improved Nutrient Qualities</i>	Composting converts nitrogen to a stable form that is less susceptible to leaching. Composting high carbon to nitrogen ratio manures reduces the ratio which allows the nitrogen to be immediately available to the plants.
<i>Decrease Pollutants</i>	Disposal of compost is not a problem because there is a demand for compost. Compost can be transported farther distances, possibly out of an over-burdened watershed. Composting converts nitrogen into forms which are less likely to leach into the ground or be carried away by surface runoff.

Composting Disadvantages

<i>Loss of Ammonia</i>	Compost contains less than half the nitrogen of manure but if manure is not incorporated into the soil it loses nitrogen to the atmosphere and may retain less nitrogen than the compost.
<i>Time Involved</i>	Composting requires a time commitment to properly manage the windrows to produce quality compost.
<i>Cost of Equipment</i>	Specialized windrow turners may be required, but they can come at with a high price tag.
<i>Land Required</i>	The composting site and storage for finished product can use a considerable area of land.
<i>Marketing Required For Sale</i>	Money and time may be spent advertising, packaging, and managing the business.

For More Information

Virginia Nelson, E.I.T.	Phone (403) 329-1212
3000 College Drive South	Fax (403) 328-5562
Lethbridge, Alberta T1K 1L6	E-mail virginia.nelson@gov.ab.ca