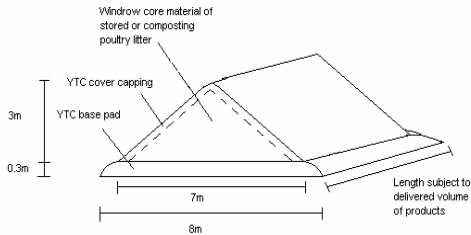


FACTSHEET

Temporary Field Storage of Poultry Litter Using Municipal Yard Trimmings Compost (YTC)

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WINDROW MODEL WITH YTC BASE PAD &
COVER CAPPING



Agricultural Waste Control Regulation (BC Reg 131/92)

- Solid agricultural waste may be field stored for no more than 9 months
- It must be located at least 30 m from any water course
- It must be stored in manner which prevents the escape of agricultural waste that causes pollution
- In areas that receive 600 mm of precipitation between October and April (inclusive) the agricultural waste must be covered

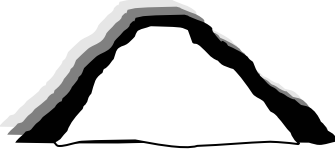



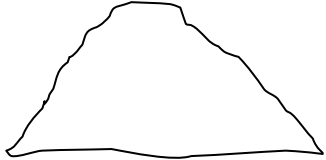
Poultry Litter Storage Issues and Concerns

- With heavy winter rains uncovered field stored poultry litter leaches the following: Salts (mostly Na and K), NH_4 , P compounds, Cu, and other metals
- Implications of leaching → excessive soil nutrient levels restrict crop production the following season; potential for nutrient leaching and subsequent contamination of groundwater and/or coastal waters; initial increase in soil pH
- Uncovered poultry litter is a site for wild birds to land and feed, with the potential for pathogen transfer from the intensive caged poultry system to wild populations
- Saturated poultry litter becomes anoxic and can give off foul odors, particularly during spreading

Recommendations for Temporary Field Storage of Poultry Litter

- Each year, store poultry litter on a ≈ 30 cm thick base pad of City of Vancouver yard trimmings compost (YTC); and do not reuse the YTC base pad for subsequent storage; avoid field areas subject to over-winter ponding
- To avoid pooling of water on the pile and the creation of saturated and odorous zones, form the poultry litter pile into a windrow of triangular cross-section – this allows water to be shed from the pile
- Construct a windrow of no more than 7m wide and 3m high, length may vary.
- Cover the poultry litter with a tarp or a 15-20 cm thick layer of YTC
- Timing → be sure to shape the pile into a windrow and cover it by early October, prior to the onset of the heavy fall rains, when the soils are still trafficable

Summary of Results of Temporary Field Storage Trials

Storage Method & X-Sectional Views	Demonstrated Results	Recommendation
<p>YTC cover (15 cm thick), no YTC base pad</p> 	<ul style="list-style-type: none"> • Significant leaching of NH₄ and salts under pile, down to 30 cm depth in soil • Run-off of nutrients from pile was minimal • No crop production under the pile the following spring 	<p>Not recommended. This adheres to the regulation but the soil under and around the pile is significantly impacted.</p>
<p>YTC base pad (30 cm thick), no YTC cover</p> 	<ul style="list-style-type: none"> • Salt and NH₄ leaching occurred mostly under the pile's wet edge • Run-off of NH₄ was significant 2.5 m away from the pile at 0-15 cm depth • Crop growth the following spring where pile had been was variable 	<p>Not recommended – does not adhere to regulation</p>
<p>YTC cover (15 cm) and YTC base pad (30 cm)</p> 	<ul style="list-style-type: none"> • Salt levels were elevated only under the wet edge of the pile to 15 cm depth • Significant NH₄ leaching occurred under the wet edge of the pile • Some run-off of P and NH₄ occurred beside the piles • Crop growth the following spring where pile had been was variable 	<p>Recommended BMP</p>
<p>YTC base pad and berm (1 m high), no YTC cover</p> 	<ul style="list-style-type: none"> • Berm fills with leachate from poultry litter → moat • Wild birds swim in moat • Pile drainage is restricted – poultry litter remains wet • Nutrients, metals, BOD and total solids in moat were all above regulations 	<p>Not recommended</p>
<p>No YTC base pad, no YTC cover</p> 	<ul style="list-style-type: none"> • Significant leaching of NH₄ and salts under pile, down to 30 cm depth in soil • P and NH₄ run-off affected the soil beside the pile to a depth of 15 cm, and up to a distance of 5 m away • The potato crop grown the following spring showed vigorous foliar growth and no tuber production 	<p>Not recommended – does not adhere to regulation</p>



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