

Field Testing of Bone Screening and Beneficial Reuse of Large Animal Mortality Compost

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In recent years, disposal of Large Animal Mortality (LAM) has become increasingly difficult for farmers. Burial, incineration, rendering, and landfilling have become more expensive and, in most cases, highly regulated. On-farm composting is a practical, economical, and environmentally sound way to dispose of LAM. However, LAM composting has not been adopted as rapidly as expected. One reason for the delayed adoption is the lack of a practical system for dealing with the bones that remain after the flesh is composted. As part of a 2011 USDA Conservation Innovation Grant, Virginia Cooperative Extension piloted a project to screen the bones from piles of composted LAM on four farms in the Shenandoah Valley of Virginia and demonstrate the beneficial reuse of the screened compost material. An Orbit screen was used to successfully screen piles ranging from 5 tons to 150 tons. Approximately 320 tons of LAM compost (400 to 450 cubic yards) was screened with 18 hours of use logged on the screening machine. The screened material was then spread on crop fields at agronomic rates. Based upon the preliminary data, the cost to screen the bones and spread the screened material is greater than the fertilizer value of the nutrients.

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