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COMPOST FACT SHEET #1: Marketing Composts and Meeting Consumer Needs

COMPOST FACT SHEET SERIES 2004/2005

*For these fact sheets and other
compost information:
<http://cwmi.css.cornell.edu/Composting.html>*

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Overview

With increasing regulation in the areas of nutrient management planning (NMP) and concentrated animal feeding operations (CAFO's) over the past decade, pressure on farmers to develop better and more comprehensive means of handling agricultural wastes has grown significantly. Seasonal and environmental limitations on land spreading of manures are driving many farm managers to rely on alternative management options.

Composting has proven to be a feasible and practical manure management option for farmers. It can be implemented with existing farm equipment, dedicated turners or in-vessel systems. Composting stabilizes manure and other agricultural wastes, reducing odor, volume, pathogens, and environmental impacts. If a farm uses compost on site, fertilizer costs may be offset and soil health improved. There is potential for compost sales and collection of tipping fees for composting of off-farm residuals as well.

Time and Money

A dilemma that many compost producers face is finding a market for their compost product. Some

Use the Co-Composter Model for help with compost calculations!

Download the free MS Excel application at:
<http://compost.css.cornell.edu/CoCompost.html>

Co-Composter was developed to help managers understand the different facets of operating a compost facility. Space requirements, input volumes, economic costs, equipment, and more are taken into consideration by the model.

farmers producing compost will choose to use it on their own land to improve soil health and provide nutrients. Other farmers will establish markets for the compost they produce, generating income, or offsetting manure management expenses. In the context of CAFO and NMP regulations, the sale of compost also serves as a way to export excess farm nutrients.

Marketing compost can be a formidable challenge for many farm managers, in the context of already busy schedules. Often, a producer does not have enough time, lacks marketing knowledge, or is isolated from potential compost buyers.

Income from compost sales is an important incentive, but is only one potential economic return. A farm may experience even greater economic benefits from a reduction in manure handling and spreading costs, and better management of nutrients and odors, as a result of composting.

To address the challenges faced by compost producers when trying to sell compost products, the Cornell Waste Management Institute (CWMI) completed a survey of both current and potential markets for composts in New York State. In addition, CWMI compiled a list of market-specific guidelines for compost use. This fact sheet provides an overview of findings obtained from these surveys and provides a discussion of factors that are important when marketing compost.

Understanding Compost Markets

In the Northeast, sale prices for composts range from \$8 to \$35 per yard. Product quality, market proximity, type of feedstock, bag or bulk sales, and marketing skills account for the price variance.

Choose a Market or End-use

What are the qualities of the compost produced and how do those match the needs of different end users? Will the product be sold or used on site? The difference in compost quality requirements for different end uses can be significant. Targeting a market is critical. Some uses require careful attention and management in order to meet consumer needs. Others are much less demanding. Some compost producers are creating and selling compost products such as topsoil or potting mix by blending with other materials. Certain

COMPOST FACT SHEET #3: Improving and Maintaining Compost Quality

<http://cwmi.css.cornell.edu/compostfs3.pdf>

aspects of compost quality can be adjusted by changing the compost feedstocks and processing of compost. To learn more, read Fact Sheet #3 in this series.

Greenhouses and nursery operations require higher quality composts. Though this market pays more, it's also a high-risk outlet. If the nutrient content or maturity of a product cause problems, the compost producer could be liable for plant damage, so careful management is important.

Other markets are more forgiving. Field crops, turf maintenance crops and roadside erosion control may be able to use compost that isn't fully stable, or has pH or nutrient values that would not work in other settings.

To Bag or Not to Bag

Many compost producers believe the highest return comes from selling bagged compost to the home gardener market. To cover the cost of making this compost product, a producer typically needs to sell bagged compost at a unit price that covers costs of production, plus extra to make a profit. Unfortunately, competition is intense in the home gardener market, and though farm compost may be a superior product, many other bagged composts sell for only \$1 to \$2 per 30- to 50-pound bag, a price that could limit the price that agricultural compost product could command.

Costs to produce the stable product required for bagged compost can be high. Screening and bagging requires equipment and labor, and there needs to be a dry place to store the finished product before screening. While chain stores, or "box" stores seem to offer an impressive distribution network for bagged compost, marketing a product to these companies is often quite difficult and requires a large and inexpensive amount of product.

Compost Volumes

Being able to meet consumer needs for the quantity of compost required is sometimes a challenge for farmers and others producing limited amounts of compost. It is important not to distribute compost that has not reached a level of maturity appropriate for the end use, since

problems for users might arise. Once a consumer has a bad experience with an inferior product, they are not as likely to use that compost again. One option being explored by some farms to address the volume issue is the formation of a cooperative venture with other local farms. Contact CWMI for more information.

Marketing and Advertising

There are some inexpensive ways to market compost locally. First, identify the potential markets for your compost.

Potential Consumers

- ✓ Homeowners
- ✓ Landscapers
- ✓ Construction Companies
- ✓ Nurseries
- ✓ Vegetable Farmers
- ✓ Local and State Highway Departments
- ✓ Greenhouses

There is a Cornell Cooperative Extension (CCE) office in every New York State county and they often have lists of locally available composts that they provide to people who inquire. If there is not a current list, suggest that one be developed.

How to Let People Know...

- ✓ Local Newspapers
- ✓ Local Home and Garden Centers
- ✓ Farmer Cooperatives
- ✓ Direct Mail to Targeted Audiences
- ✓ Industry-specific Publications
- ✓ Newspaper Columns
- ✓ Television Shows
- ✓ Trade Shows
- ✓ Yellow Pages
- ✓ Personal Web Site
- ✓ Word of Mouth
- ✓ Garden Clubs
- ✓ CCE List

Uses for Composts

Some major markets for compost are summarized below. Many producers also find niche markets, and sales expand as availability becomes more widely known.

Backfill for Trees and Shrubs

Backfill is loose soil or substrate used to fill gaps around the root ball, or root network of a tree, or shrub in a landscaped setting. Roots need a firmly packed growing medium capable of retaining moisture to properly supply the rest of the plant with nutrients and water as they grow. Compost is effective at promoting these conditions and can be used as an amendment mixed with backfill materials.

Container Mix or Potting Soil

Nursery stock, house plants, and most types of flowers require certain blends of growing medium to grow well and stay healthy. Many of these soils have specific requirements for parameters such as pH and organic matter. Some composts are well suited for use as a component in container mix. However, care must be taken to ensure that a compost is compatible with consumer needs and requirements. A fully mature compost without excessive salts is needed.

Nursery Beds

Compost is often mixed with soil in nursery beds that are used to produce ornamental plants. It is important for these nursery beds to have a high water holding capacity and suitable levels of organic matter to maintain plant health. Using compost as a component of nursery bed media can improve conditions for plant growth.

Erosion Control

Studies have shown that compost is an effective medium for minimizing soil loss and erosion in areas where surface soils have been disturbed. Erosion control applications include compost blankets (a topdressing of 2-4 inches of compost on a slope) and filter berms (a triangular berm perpendicular to the flow of water). Landscaping, construction, and road work are examples of settings in which compost might be useful as an erosion control product.

State Department of Transportation

The New York State Department of Transportation provides specifications for the use of “organic materials” as a component of various landscaping materials. Manure-based products are listed as an acceptable type of source-separated compost. Compost requirements are determined by the landscape architect managing a given DOT project.

Topsoil Component

Additions of organic material are often made to soils or subsoils having low organic matter or low water holding capacity. Compost may be used to enhance these qualities and, in turn, improve growing conditions. Compost requirement will vary depending on consumer needs. Large quantities (1/3-1/2 by volume) may be needed to amend soils for the top 8-12 inches on construction sites.

Turf Establishment & Maintenance

Turf requires a suitable substrate that will promote growth and healthy plants. Compost may be used to amend soils that will serve as a growing medium for the establishment of turf from seed, sprigs, or sod. Topdressing can help maintain established turf.

Fruit and Vegetable Crops

Many fruit and vegetable crops benefit from the addition of compost to the soil as an amendment. In some situations, fruit and vegetable farms are deficient in the same nutrients that are in excess on livestock farms.

Organic Production

Use of compost is an important component of sustainable organic production systems. Compost that meets processing requirements and follows requirements for what can be composted (no sewage sludge, for example) can be used without restriction in organic agriculture. Restrictions on harvesting of certain crops are placed when the requirements are not met.

Guidelines for Compost Use

A few sets of guidelines have been developed by various organizations to help compost users identify compost that meets their needs. These may be useful

to compost producers in producing a compost suitable for the desired end market.

Compost guidelines are available online at the CWMI website. Visit:

<http://compost.css.cornell.edu/market-label/guidelines/home.htm>

Compost Qualities of Interest to Consumers

Weed Seeds

Consumers have shown a high level of concern regarding weed seed content in compost products according to surveys carried out by CWMI. Weed seeds are undesirable in gardening and potting soils, as well as other applications. Knowing viable weed seed content is valuable for both management and marketing purposes.

Soluble Salts and Maturity

Soluble salts and maturity can influence the health of plants. If soluble salts are too high, plant toxicity may occur depending on the tolerance of a particular species. Compost with low maturity may have a similar effect. Volatile substances may still be present in immature composts and may influence plant health.

Pathogens

Manure and other compost feedstocks may contain pathogens (disease-causing organisms). The heat generated in properly managed compost piles eliminate most pathogens. The finished compost would pose risks similar to potting mixes or garden soils. Consumers may want to know that pathogen risks have been minimized.

pH

Many plants grow optimally within a certain pH range. Knowing the pH of a compost will help consumers make decisions regarding how to use a product. Calculating the impact of compost additions on soil pH requires an understanding of the neutralizing value of the compost and is not simply based on compost pH.

Nutrient Value

Nutrients are almost always of value to consumers, since all plants have basic requirements to maintain health, and to grow.

Organic Matter

Organic matter is material in compost that came from, or is, living matter and is composed of plant residues, microorganisms, and hummus. Hummus is the stable end-product left after the decomposition of fresh organic materials. Living matter also contains minerals. As compost matures, the organic matter degrades so the proportion of organic mineral matter increases. Low organic matter content in a compost may indicate incorporation of mineral soil. End users are often using composts to increase the organic matter in their soil.

**COMPOST FACT SHEET #4:
Testing Composts**
<http://cwmi.css.cornell.edu/compostfs4.pdf>



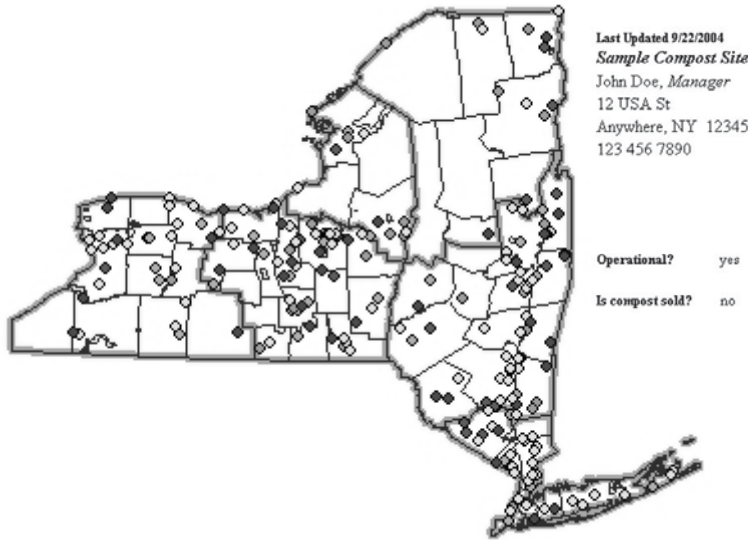
Compost is applied to turf plots in a park to determine the most beneficial application rate.

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Maps of a database of NYS Compost Facilities can be accessed at: <http://compost.css.cornell.edu/maps/simple-search.asp> (see example below).

New York State Compost Facilities Search



Compost Facility Search Results

Feedstocks	
Leaves	yes
Grass	yes
Brush and Branches	yes
Logs, Stumps other Wood	
Pre-consumer Food Waste	yes
Post-consumer Food Waste	yes

Paper Products	
Floral Waste or Plant Trimmings	
Animal Manures	
Sewage Sludge	
Paper Sludge	
Other Materials	

Composting Method?	windrow piles
Is compost free?	yes
If yes, to whom?	residents

Option #2

Select a map to view facilities

[All Compost Facilities](#)

[Yardwaste Composts](#)

[Manure Compost Facilities](#)

[Foodscrap Compost Facilities](#)

[Biosolids Compost Facilities](#)

[Compost Research Farms](#)

[Small Scale Compost Demonstration Sites](#)

Select a county from the list below

None Selected ▾

*Click "Submit" to send request

Submit

Composting Resources:

- Farm-Based Composting: Manure & More - <http://www.nraes.org/publications/nraes150.html>
- Natural Rendering: Composting Livestock Mortality & Butcher Waste:
 Fact Sheet - <http://compost.css.cornell.edu/naturalrenderingFS.pdf>
 Video - <http://www.nraes.org/publications/nraes163.html>
- Co-Composter: <http://compost.css.cornell.edu/CoCompost.html>
- Compost...because a rind is a terrible thing to waste - <http://compost.css.cornell.edu/FoodCompostpr.html>

For other composting resources see the CWMI web site at: <http://cwmi.css.cornell.edu/Composting.html>