Case Study:
Marketing On-Farm Compost

The Northeast Recycling Council (NERC) is a non-profit organization that conducts research, hands-on projects, training, and outreach on issues associated with source reduction, recycling, composting, environmentally preferable purchasing, and decreasing the toxicity of the solid waste stream.

Integrating composting practices into farming operations and refining compost production and utilization methods can help farmers better manage farm organic waste, including manure and crop residues. The resulting compost can be applied for on-farm soil benefits and/or sold as a valued-added product. To expand and support farm-based compost markets in the Northeast, NERC was awarded a grant from the Northeast Sustainable Agriculture Research and Education (SARE) program. Resources developed by NERC for the project, as well as presentations from seven compost marketing workshops, are posted on NERC's website. NERC provided technical assistance to farm compost operations, including development of operation-specific marketing plans.

Cobblestone Valley Farm
Preble, New York

Overview

Cobblestone Valley Farm is a diversified organic farm certified by NOFA-NY Certified Organic, LLC. The farm is located in the heart of New York State; strategically located off Interstate 81, and just 20 minutes south of Syracuse in the small town of Preble.

The backbone of the farm is dairy production and related products, with its other enterprises primarily connected to milk production. In addition to the farm's dairy production, the farm produces certified organic pastured poultry, grass-fed beef, pastured pork, pick-your-own strawberries, and compost.

The farm is in the fourth generation of the Knapp family. Family members, Paul and Maureen Knapp, continue to do their utmost to preserve, conserve, and rebuild the wonderful soil resources in Cobblestone Valley. The Knapp family believes that all farm health begins with the soil. The farm operators consider preservation of their soil as a precious resource and a priority in their operation. Their motto: "Healthy soils grow healthy plants, which produce healthy animals and, in turn, healthy people."

The compost produced at Cobblestone Valley Farm is the basis of the farm's soil fertility program and a primary component of the farm business plan to foster diversification. The compost operation is central to the farm's manure management plan. For the farm, the first goal of making compost is to eliminate or minimize nuisances such as odors, insects, and runoff that can be caused by improper manure management. The second goal is to produce composted material that is suitable for spreading on fields where animals are pastured and

hay is harvested, without the problems of raw manure such as clumping, nutrient overload, and nutrient runoff. The third goal is to produce compost that meets the needs of consumers (vegetable growers, home gardeners, and others) and presents the farm with a marketable, value-added product.

The farm compost operation management and labor is conducted by Paul and Maureen Knapp, along with farm laborers and hired custom operators during the spring-to-fall compost season.

Materials Composted

Several feedstocks (ingredients) are used to manufacture Cobblestone Valley Farm compost. Manure from the farm's dairy barn, including manure/bedded pack and heifer manure ("freestall pack"), along with calf manure from small pens is combined with one of several dry carbon materials.

Feedstock Recipe

- 70% Dairy cow manure-bedded with wood shavings, sawdust, hay and/or straw
- 20% Bedded manure from Cortland County Fairgrounds
- 5-10% Heifer manure
- 2-5% Feed spoilage
- 1-5% Other feedstocks, including leaves

The carbon ingredients include: straw, sawdust, woodchips, old hay, old silage and feed spoilage, straw-baled and straw-chopped (from neighbors), or animal bedding. Horse manure from Cortland County Fairgrounds is also included in the mix. Weeds harvested from a nearby lake are occasionally accepted. The town of Cortland also delivers ground trees and leaves. All materials are delivered to the operation; no tip fee is charged.

Compost Method and Equipment

Bedded pack manure is removed from barn pens with a tractor loader and loaded into a box manure spreader or stacked outside the barn (for later removal). Gutter cleaned dairy manure is loaded into the box spreader as well. Amendments (additional carbon sources) are added into the box spreader, as necessary, to achieve a targeted moisture content of 60-65% and a carbon to nitrogen ratio of 30 to 1.

The box spreader is unloaded into a windrow (elongated pile) onto the compost pad. New loads are added to the end of active windrows. Other feedstocks, including leaves and ground trees, are added to the top of the windrow with a skid loader or bucket loader.

The tractor bucket or skid loader is used to create windrows with the dimensions of a maximum of 9 feet wide by a maximum of 4.5 feet high that will accommodate the size of the farm's Sandberger compost turner. Once the ingredients are assembled into a windrow, the windrow is turned a number of times over the next few weeks. Turning mixes the materials, breaks up the piles, and keeps oxygen flowing through the windrow so that the process remains aerobic. During this time, windrow temperatures are monitored and recorded on a weekly or more frequent basis, with temperatures ranging from 100F° to 150F°, promoting; optimum conditions for the composting process.

Marketing

The Cobblestone Valley Farm website is effectively used to advertise the farm's products, including compost. The website incorporates a customer friendly explanation of compost benefits and uses and its importance as a soil amendment. A description of the ingredients that go into making Cobblestone Valley Farm compost and the method used to make the compost is also included.

Cobblestone Valley Farm has developed a vital base of farm customers for its various dairy product sales. This customer base also serves as a marketing and sales opportunity for the farm's compost products.

Strategies used to develop the farm's marketing capacity include:

- Participating in the Northern Forests Compost Collaborative[1] to work with experts on developing an effective manure management system and a marketable compost product
- Designing a compost operation to meet on-farm manure management needs, farm diversification goals, and the marketing and sales of compost certified for organic agriculture use
- Researching compost marketing techniques
- Attending a NERC compost marketing workshop
- Developing a compost market plan
- Consulting with compost experts on pricing, techniques, etc.
- Word-of-mouth and outreach to existing farm customers

Compost Utilization, Customer Base, and Sales

Cobblestone Valley Farm compost is certified acceptable for use on organic farms. Cobblestone Valley produces a mulch product, a fine compost, and a premium high-end compost product. Compost products are sold by bulk onsite. Compost is priced by the yard at $40 (a full-size pick-up load is about a yard).

For larger quantities, a front-end loader is used to fill a pickup truck or trailer. Smaller containers are easily filled by hand with a shovel. Orders can be called in for onsite loading of trucks or trailers. Customers can also visit the farm for onsite loading of trucks or buckets.

While located in a rural area, the farm is conveniently located off I-81 in proximity of Syracuse. This presents additional customer opportunities for the farm as it expands its compost operation, including to organic farm operations, landscapers, and home gardeners.

[1] The Northern Forest Compost Collaborative (NFCC) project was conceived by several farmers located in central New York State interested in improving the production and quality of farm composts.

Challenges and Solutions

Challenge: In order to expand compost production, additional carbon feedstock is necessary.
Solution: A wide range of farm operations are located in the Preble area, including grain and hay producers, horse operations, and landscapers. Outreach to local communities that have leave and brush collection programs is also being explored.

Challenge: The farm operators struggle to find time to spend on compost product marketing.
Solution: The farm started slowly with its compost sales outreach, focusing on existing farm customers. This has resulted in in expanding base of repeat customers.

Challenge: Farm operators have been unable to charge a "tip fee" to farms and other feedstock suppliers, as generators do not want to pay.
Solution: Working with the town of Cortland to backhaul purchased product is one avenue being explored. They hope that outreach to landscapers as potential feedstock suppliers may lead to payment of tip fees for their materials.

Challenge: Leaves and ground trees delivered from the town of Cortland is a good source of carbon, however it is contaminated with plastic.
Solution: Farm operators are working with the Town to try to promote education to residents about the need to keep plastic out of leaves and only use paper sacks for collection. Alternatively, the farm will need to screen its product.

Future Plans

Cobblestone Valley Farm is a successful example of a diversified farm. With its on-farm generated compost feedstocks and variety of off-farm feedstocks, it is able to produce a quality compost product and continued product sales growth. It is retaining customers and has successfully marketed its compost in conjunction with its other on-farm sales.

Future Goals:

- Continue to develop and sell a consistent premium compost product
- Work out an arrangement with the City of Cortland to backhaul compost when leaves and brush are delivered
- Locate additional off-farm carbon sources
- Experiment with compost recipe development based upon a steady stream of compost feedstocks
- Investigate the costs and benefits of bagging compost and alternative packaging models (such as 5-gallon returnable bucket or easy-to-fill bags)

For More Information

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