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MARKETING ON-FARM COMPOST

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Introduction

A unique opportunity may exist today for farmers to enhance their incomes while helping to improve their own and their communities' environment. Composting of organic farm waste (and possibly leaves, grass clippings, and food processing wastes from surrounding communities) may be a way to help realize these objectives. This opportunity arises from three developments in the market.

First, Pennsylvania's 1993 Nutrient Management Act requires farmers to more effectively manage the manure on their farms to minimize its environmental impact. Many farmers, especially those closest to suburban and urban areas, often find that they do not have enough land for spreading all the manure that their farms generate. Because of this, they are looking for ways to either reduce the amount of manure or are looking for alternative uses for it. More information on this legislation can be found in "Nutrient Management Legislation in Pennsylvania," by D. Beegle (see Additional Publications).

Second, increasingly tighter landfill regulations may force many communities to seek alternative ways to dispose of leaves and grass clippings. Likewise, businesses such as food processors and supermarkets are facing higher disposal costs for their organic waste. Local farmers who can incorporate these items into their composting operations may find that their communities also can benefit from their efforts.

Third, recent federal wetlands regulations may reduce the availability and raise the price of peat, a major competitor for compost. This could make compost a more attractive alternative for people searching for an ecologically sound soil conditioner.

The combination of higher prices for other soil conditioners; farmers' increasing need to better manage manure; and communities' need to dispose of leaves, grass clippings, and other organic wastes may all combine to enhance the market potential for on-farm composting. It is important, however, to distinguish between market potential and market reality. Bridging from one to the other takes a high level of production and marketing skills. Neither can do the job alone. The objective of this publication is to outline the skills needed to successfully market on-farm compost.

Developing A Market Perspective

Marketing today is very different from what it was just a few years ago. In the past, consumers often had few choices when buying the things they needed. For instance, less than a generation ago, our choices for cars were limited to those provided by the three major U.S. automobile manufacturers. Earlier in the century, there were even fewer choices. Henry Ford was famous for saying that buyers of his early cars could have any color they wanted as long as they chose black.

Today, consumers have a seemingly unlimited number of choices in most things they buy. They do not have to settle for what they can find, but can decide among several alternatives, and buy only the products that best fill their needs and offer the most value for their money. The result is intense competition among producers for the customers' dollar.

The most successful businesses today are those that look at their products the way their customers do. The producer's goal is to satisfy the customer's needs while making a profit. There are several examples of farmers who have adopted this concept in their composting operations and have been very successful. It is hard to find instances of successful composting operations where this market strategy is not being used.

Mastering the Basics

Listed below are the key elements in a profitable on-farm composting operation:

1. strict quality controls on the inputs used and the compost produced
2. mastery of the compost production process
3. a good system of farm records to insure an accurate measurement of production costs
4. a strong marketing plan.

Each of these items must be well executed for the operation to succeed. In fact, producers should be proficient at all four before beginning a commercial composting operation.

The most important recommendation from successful operators is to get to know your potential customers before you produce compost. It is important to start with customer needs and work backwards to production. Potential customers will tell you what products and product characteristics they are looking for, and mastery of the production process and strict controls on inputs and the compost produced insures that you can deliver what they want. Good farm records tell you whether you can deliver that product profitably. (The format for a basic on-farm composting enterprise budget is given in Figure 1.)

Within this framework, production is not less important than marketing. Rather, focusing first on marketing helps producers gear their efforts to achieving the product characteristics that customers value most at a price they are willing to pay. It makes no sense to create a product and then hope you can find someone who might be willing to buy it. Compost is no exception.

How Customers Define Good Compost

There are two aspects of determining how customers define good compost: first, the general marketing and product characteristics that are found in nearly all goods and services, and second, the physical characteristics that define good compost.

To determine what customers want, start with an examination of your own buying habits. Where do you shop? Why do you buy from these businesses? Customers want products that fully meet their needs and are made by dependable firms that will stand behind them. The products must be of consistent quality and be available when and where customers want to buy them. The price should be fair and represent good value for the money. Because there are a variety of buyers with a variety of needs and abilities to pay, compost producers must be prepared to offer an assortment of products at a variety of prices.

Physical Characteristics of Good Compost

A good physical definition of compost comes from LaCross and Graves (RCL-3, p. 1—see Additional Publications). They define compost as a rich, humus-like material that is valued for its soil conditioning qualities. It is produced from a mixture of organic materials—such as manure, animal bedding, food processing wastes, or animal wastes—that decomposes in the presence of oxygen.

For many consumers, the general physical characteristics of good compost are the following:

1. a homogeneous material that is dark brown or black in color
2. a humus-like smell with no objectionable odor
3. a particle size of less than one-half inch
4. a stable product that is capable of being stored for a reasonable time without losing its effectiveness
5. a product that is free of weed seeds
6. a product that is free of phytotoxins or visible contaminants
7. a product with a pH of 6.0 to 7.8.

Helping Customers Understand the Benefits of Compost

While many farmers are familiar with compost, potential users may not be acquainted with the product. To many, compost is new and may come with potential risks. The best way to overcome sales resistance is to provide potential users with information and technical assistance, so they can successfully use compost. In some cases this may be a free truckload and application of compost so that the first use by a new customer is completely risk-free and highly successful. In return, this customer may allow other potential users to examine the results and see for themselves the benefits of compost. Various printed materials from industry, universities, and trade sources also may help potential users learn more about the advantages and uses of compost. (A listing of some of these publications can be found in the references.)

Advantages of Composting for Farmers

For the farmer, there are several advantages to composting the large amount of organic material that comes from agricultural production. Compost is a good soil conditioner for the farm because it improves nutrient-holding and water-retaining abilities, which reduces fertilizer requirements and erosion while enhancing soil tilth. Composting also reduces manure management problems by:

1. reducing the moisture and biological activity in the manure
2. reducing the weight of manure
3. reducing odor and fly problems
4. providing a more stable form of nitrogen that is less likely to leach into water supplies
5. slowing the release of nutrients into the soil, reducing crop burn and extending feeding time (LaCross and Graves, RCL-3, pg. 2—see Additional Publications).

Advantages of Compost for Off-Farm Users

The use of compost in place of other products, such as peat, top soil, manures, or organic fertilizers, offers off-farm users many of the same advantages. It is important that potential users understand these advantages, so they can fairly assess the product's value. They also need to remember that compost is a soil amendment, and its re-

sults cannot be directly compared to that of chemical fertilizers.

For off-farm users, the major advantages of compost include:

1. increasing the water- and nutrient-retaining qualities of the soil by adding organic material
2. reducing crop burn by slowing the release of nutrients
3. being free of weed seeds
4. reducing the leaching of nitrogen into the water supply
5. having a pleasant, earthy smell.

Assuring Customers of the Safety and Quality of Compost

New or potential customers' concerns can often be laid to rest by having a respected, independent third party verify the safety and quality of the product being offered. One way to do this is to have an independent laboratory regularly test your compost to verify its nutrient content and the absence of contaminants. Testing also will help alleviate customers' concerns about the product's consistency from batch to batch. A second method is to receive certification by an industry trade association, such as the Northeast Organic Farmers Association, showing that the production process meets or exceeds industry quality and safety standards. Test results and certifications should be made a part of the marketing plan and be mentioned in all advertising.

Assessing Market Potential

The first step in assessing the market potential for compost is to determine the market sales area. Because of compost's bulk and relatively low value per unit, it is unlikely that the product will be profitable to sell beyond 25 miles of your farm. Beyond that point, whatever price advantage compost might have over other products may be more than offset by higher transportation costs.

The second step is to identify potential users of soil amendments. This list can include landscapers, nurseries, lawn and garden centers, golf courses, cemeteries, parks and other public works departments, schools, and government facilities. The fastest and least expensive way to generate this list is to look through the telephone book under these categories.

The next step is put together an information program for your potential customers, developed with their perspective in mind. Ask yourself, "If I were considering using compost for the first time, what information would I

want to have?" This can start with written materials explaining what compost is and what its advantages are. If there are success stories in your area, incorporate them into your materials. Put together as many facts as you can find. Whenever possible, include cost comparisons with other products in your local market area.

The market for soil conditioners is generally very localized and will reflect the unique supply-and-demand conditions in your area. Some producers report selling the highest quality compost for \$50-\$100 per ton to greenhouses. Others selling compost for landscaping indicate prices of \$25-\$30 per ton. The biggest item that influences how much you can charge is the price of other available soil conditioners. Remember to look at the market through the eyes of your customers. How much would it cost to do the same job using other products, such as oak bark, wood chips, top soil, or peat moss? This will tell you what price you should charge for your product. Service in the form of free delivery or free application also can be a part of your pricing scheme. Remember, how you feel about your product is not as important. The product must offer good value in the customer's mind before you can make the sale.

Now is the time to plan your sales calls. Send potential customers a personal letter introducing you and your product. Indicate in the letter that you will be calling them in few days to see if you can arrange a meeting to discuss how compost can be used in their operation. Limit your time request to one-half hour. If you cannot explain your product completely in that time, you are not ready to begin selling.

To be sure that you get all the right information, develop a compost customer assessment form, such as the one shown in figure 2, before making the call. Try to make a reasonable estimate of your customer's soil amendment needs and approximate costs for other products (figure 3). The customers can then compare the cost of compost to what they are currently using. They will want to see some clear advantages from the adoption of compost into their operation, such as lower initial cost, lower maintenance cost, or improved appearance.

If the first response to considering using compost is no, the most important question to ask next is, "What would it take for you to buy compost from me?" In some cases this may mean formulating a special mix that meets that customer's unique situation for particle size, nutrient content, or other product characteristics. In other cases, it may be packaging, delivery costs, billing dates, delivery dates, or some other item. The point is to give customers what they want, when they want it, and the way they want it. Let your customers tell you what a good soil amendment product is. Because you already know what your costs are, you will also know when you cannot profitably service a potential account and should decline the business.

Getting people to adopt new methods and products can be a slow process. There are often many setbacks. But by meeting the above criteria, you can be confident

that what you have to offer will benefit your potential customers. This personal identification with the virtues of your product makes the sales job easier.

If you made any promises during the sales process or once the sale is made, you must keep them regardless of the personal consequences to you. For instance, if you promised delivery on Tuesday and it snows, you still must figure how to make that delivery. Keeping your promises will reaffirm your customers' faith in their decision to use your compost. Remember, if you do not take care of your customers, your competitors are more than willing to do so. As your business grows with each sale, make sure there is sufficient compost to meet your delivery requirements. This is why mastery of the compost production and scheduling process is a prerequisite to making your first sales call.

Developing Different Products and Delivery Options

Adapting production to the needs of your customers can be a difficult process that requires much time and patience, but it is very important, especially when your business is first getting started. Your product must do something better, faster, cheaper, or easier than the current products. Otherwise, why would customers want to change?

It is usually better to start with a single product that can be produced consistently and reliably. As your production skills grow and you adapt to meet the needs of new customers, new products can be slowly added to your product line. After while, it is not unusual for a composter to offer as many as a half-dozen different product formulations, each designed to meet the needs of a different group of customers.

Service is another way to gain an edge on your competition. This can take many forms, such as delivery options. For instance, you can offer a price discount to customers who pick up their products, or you can provide free delivery for orders above a certain quantity. These options can be very important to your customers, and knowledge of your costs will help you to understand which offers will be profitable in the long run.

Developing a Brand Name and Package Sizes

If you decide to sell compost directly or indirectly at retail locations, you should consider adopting a brand name. There are many examples of farmers who have adopted a distinctive brand name that conveys a positive environmental image. Some have played on the use of all-natural ingredients, ecological soundness, or the farm origins of their compost.

The use of a brand name separates your product from those of your competitors. It should mean something to your customers, such as the lowest price, the highest nutrient content, the best results when applied to certain crops or ornamentals, or some other advantage. The name should be something that potential customers can understand and measure, at least subjectively. This image can be reinforced through distinctive packaging, colors, or some other method.

Knowing your customers also will tell you a lot about how to package your product. If they are greenhouse operators, cemetery caretakers, or other bulk users, truck-load sales may be most appropriate. For these customers, the use of a brand name may not be necessary. When the potential customers are home gardeners or landscapers who buy at retail from lawn-and-garden centers, the most appropriate package may be either large or a small bags or bales. The use of a brand name and distinctive packaging is important for retail customers, so they can quickly remember and identify what they have bought in the past. Because it is very likely that the product will be sold in a local market only, word of mouth and distinctive packaging may be the best way to carry out an advertising program for your compost.

Your product's image can be reinforced through advertising on the bag and in brochures available at the retail outlet. These can emphasize the ecological soundness of your product, the pristine nature of your farming operation, or some other theme that makes customers feel good about purchasing your compost.

Product Registration

If you make any claims regarding your product's abilities as a soil conditioner, plant growth substance, or fertilizer, each grade and brand must be registered with the Pennsylvania Department of Agriculture (PDA), Bureau of Plant Industry, Division of Agronomic Services, before it can be offered for sale or distributed within Pennsylvania. The current annual licensing fee is \$25.00, and a product label must be submitted along with the application forms. Scientific research data from an approved institution substantiating the claims made on the product label also may be

required. In addition, you will need to pay a semi-annual inspection fee and complete a tonnage report listing sales by county and brand name. To get copies of the latest regulations and application forms, contact PDA at (717) 787-9408. Other states in the Northeast have regulations similar to Pennsylvania's.

Assessing Profit Potential

Assessing the profit potential of composting is a critical part of marketing. It is important to determine the combination of quantity, costs of production, and selling prices that will make your efforts profitable. A good starting point is to determine what level of sales are necessary to bring the enterprise to a break-even point (where there are no losses or profits). This will give you some indication of the minimum level of sales needed before profits can be realized. Knowing this allows producers to better assess their chances for success.

The break-even level of sales is determined by dividing the fixed costs associated with composting by the difference between the selling price per ton and the variable production costs per ton for compost. To illustrate the use of break-even analysis, let's use an example where the cost of specialized equipment, buildings, and other equipment used in composting is \$15,000 per year. If the direct production cost is \$25/ton and selling price is \$35/ton, the quantity that must be sold to break even is 1,500 tons [$\$15,000/(\$35-\$25)$].¹

Another way to look at this question, which may be even more valuable for compost producers, is to rearrange the terms in this calculation and find the selling price per ton necessary to break even given a certain level of production. This can be done by rearranging the formula so that price is determined by dividing the building and equipment costs by the expected level of production, then adding that figure to the variable production cost per ton. Using the figures from the previous example, we divide \$15,000 (the annual fixed costs) by 1,500 (the annual production in tons) and then add the variable cost of \$25/ton. This gives a selling price \$35/ton [$(\$15,000/1,500) + \25].

The real value of break-even analysis is that it can help illustrate the trade-offs between costs, quantities, and prices. If the break-even selling price is too high for the market, the producer can adjust to the market price by making changes in variable cost per ton, fixed costs, or quantity produced. For example, to break even at a market price of \$30/ton, the producer could either have to double output to 3,000 tons, cut fixed costs to \$7,500, or reduce variable costs to \$20/ton. A combination of these

¹ The level of profits is zero. Total sales are \$52,500 ($\$35/\text{ton} \times 1,500 \text{ tons}$). Total costs are \$57,500 ($\$25/\text{ton} \times 1,500 \text{ tons}$) + \$15,000 (building and equipment costs). Total sales (\$52,500) and total costs (\$52,500) are equal.

three also might work. At quantities above the break-even point, the level of profits would be the difference between the selling price per ton and direct variable costs per ton, multiplied by the number of tons sold above the break-even quantity. Using the example, if 2,000 tons are expected to be sold at \$35/ton, the expected profit would be \$5,000 [$\$10 \times (2,000 - 1500)$].

Break-even analysis allows the producer to determine beforehand the level of profits that are possible from marketing compost with various combinations of costs, quantities, and selling prices. The procedure will be successful only if there is an accurate accounting of farm production costs. For more information on the use of break-even analysis in farm decision making, read Greaser and Harper (see Additional Publications).

Summary

Farmers may be able to profitably market on-farm compost. How successful they will be depends on several factors. Some are beyond the farmer's control, such as wetlands and nutrient management regulations. But there are four items that the producer can control and must master to succeed. They are:

1. strict quality controls on the inputs used and the compost produced
2. mastery of the composting production process
3. a good system of farm records to insure an accurate measurement of production costs
4. a strong marketing plan.

This guide has focused on the key elements of successfully marketing compost. The critical ingredient in successful marketing is taking a customer-oriented approach to your business: help your customers get what they want—satisfaction of their needs through the purchase of your compost—so that you can get what you want. By helping your customers satisfy their needs you can establish a successful business and gain the profits that come with it.

Additional Publications

Beegle, D., **Nutrient Management Legislation in Pennsylvania**, Agronomy Facts 40, Penn State Cooperative Extension, 1993.

Composting to Reduce the Waste Stream, A Guide to Small Scale Food and Yard Waste Composting, NRAES-43, Northeast Regional Agricultural Engineering Service, January 1991.

Fritz, T. and R. Graves, **Land Application of Leaves and Grass Clippings**, Agricultural and Biological Engineering Fact Sheet RCL-2, Penn State Cooperative Extension, 1992.

Greaser, G. and J. Harper, **Enterprise Budget Analysis**, Agricultural Alternatives Series, Penn State Cooperative Extension, 1994.

LaCross, C. and R. Graves, **Farm Composting: Plan Ahead to Avoid Problems Later**, Agricultural and Biological Engineering Fact Sheet C-4, Penn State Cooperative Extension, 1992.

LaCross, C. and R. Graves, **Farm Composting for Profit**, Agricultural and Biological Engineering Fact Sheet C-5, Penn State Cooperative Extension, 1992.

LaCross, C. and R. Graves, **On-Farm Composting**, Agricultural and Biological Engineering Fact Sheet RCL-3, Penn State Cooperative Extension, 1992.

On-Farm Composting Handbook, NRAES-54, Northeast Regional Agricultural Engineering Service, 1994.

Figure 1

Format for a Basic On-Farm Composting Enterprise Budget

<i>Item</i>	<i>Quantity</i>	<i>Unit</i>	<i>Price</i>	<i>Total</i>	<i>Your Estimate</i>
Receipts					
—Compost Sales	_____	_____	_____	_____	_____
—Other	_____	_____	_____	_____	_____
Total Receipts	_____	_____	_____	_____	_____
Variable Costs					
Custom Hire	_____	_____	_____	_____	_____
Organic Material Purchased	_____	_____	_____	_____	_____
Chemical Purchases	_____	_____	_____	_____	_____
Labor					
—Tractor	_____	_____	_____	_____	_____
—Additional Labor	_____	_____	_____	_____	_____
Fuel					
—Tractor	_____	_____	_____	_____	_____
—Other	_____	_____	_____	_____	_____
—Electricity	_____	_____	_____	_____	_____
Repairs & Maintenance	_____	_____	_____	_____	_____
Interest on Operating Capital	_____	_____	_____	_____	_____
Total Variable Costs	_____	_____	_____	_____	_____
Fixed Costs					
—Tractor	_____	_____	_____	_____	_____
—Other	_____	_____	_____	_____	_____
Land Charge	_____	_____	_____	_____	_____
Total Fixed Costs	_____	_____	_____	_____	_____
Total Costs	_____	_____	_____	_____	_____
Returns Over Variable Cost	_____	_____	_____	_____	_____
Net Returns	_____	_____	_____	_____	_____

Figure 2

Compost Customer Assessment Form

Date of Appointment _____

Time of Appointment _____

Company Name _____

Name & Title of Contact _____

Address _____

Telephone Number _____

Type of Business _____

Primary Uses of Soil Amendments _____

Estimated Annual Purchases

Composted Manure _____

Fresh Manure _____

Dried Manure _____

Peat _____

Loam _____

Nitrogen _____

Phosphorus _____

Potassium _____

What would it take to get you to use more or switch to compost? (Circle each one that applies.)

price nutrient level particle size odor product consistency pH

weed free packaging too risky don't understand how to work with it delivery

other _____

Figure 3

Compost Application Guidelines

<i>Landscape Use</i>	<i>Approximate Rate (lbs/1,000 sq. ft.)</i>	<i>Comments</i>
Lawn and athletic field establishment	3,000 to 6,000 (1 to 2 inches)	Incorporate into the top 4 to 6 inches of soil
Lawn topdressing	400 to 800 (1/8 to 1/4 inch)	Broadcast uniformly on grass surface
Shrub and tree maintenance	200 to 400 (1/16 to 1/4 inch)	Work into soil or use as a mulch
Container mix	Not more than 1/3 by volume	Blend with perlite, vermiculite, sand, or bark

Source: **Composting to Reduce the Waste Stream, A Guide to Small Scale Food and Yard Waste Composting**, Northeast Regional Agricultural Engineering Service, 152 Riley-Robb Hall, Cooperative Extension, Ithaca, NY, NRAES-43, January 1991, pg. 21.

