SURVEYS GUIDE DEVELOPMENT OF QUALITY COMPOST SEAL

Information gathered from home gardeners and commercial users of compost, as well as agricultural producers, directs creation of composting label for New York farmers.

Jean Bonhotal

THE New York State Association of Reduction, Reuse and Recycling (NYSAR³) is conducting a multifaceted project to expand the market for compost in order to help farmers manage manure and make their operations more profitable. With partial funding from the New York State Energy Research and Development Authority (NYSERDA), NYSAR³ has worked with the Cornell Waste Management Institute (CWMI) to investigate what potential compost users want in a product and what information would help them. A major step in this process is a survey that CWMI conducted of residential and industry users, as well as an examination of compost bags distributed in New York State (NYS). Because of funding parameters, CWMI knew that the user survey would have a large margin for statistical error, although it still would yield useful information.

To help consumers identify what products meet their needs, another aspect of the project is developing a label or seal-of-quality. This would make product selection easier for consumers, and they presumably would be more inclined to use compost if they knew they were purchasing a quality product and could expect that consistency each time. CWMI conducted surveys of different states' composting programs and three participants in other states' label/seal programs. Due to the unclear dividing line between what does and does not constitute agricultural composting, the next step was to identify what kind of producers should be included in New York compost labeling program. Following that determination, several laboratories were surveyed on methods of analyzing compost quality and price ranges. The goal of all of these composting initiatives is for farmers to have a more viable means of managing their manure and other farm residuals, reduced costs associated with land spreading (including nutrient management), and revenues from compost sales.

Many labels from composted products were reviewed as part of the data collection project.

In addition to conducting the aforementioned surveys, CWMI interviewed several other composting councils and regulators. A working group to review the options for a compost label/seal program was formed within the Organics Recycling and Composting Council (ORCC), which was created by NYSAR³ in 1999 as a volunteer organization. Woods End Research Laboratory in Maine also assisted in the project with

FEEDSTOCKS, METHODS AND USE

THE CORNELL Waste Management Institute collected information about the composting practices of 44 New York farms to determine the main sources of feedstock, their methods and how they are using their finished product. Six do not use any manure in their process. Twenty-one farms are taking outside feedstocks other than wood chips. These include food processing residuals, grape pressings, dairy waste, food scraps, butcher residuals, paper sludge, fish residuals, zoo manure and leaves. Twenty-one farms are composting with wood chips. Sixteen get tipping fees for all material generated off the farm. Sixteen of the farms are selling their product by either bulk or bag, while five farms are working toward selling their end product. Twenty-nine of the farms use some of their compost on-site and 35 do some or all composting in turned windrows.

data from a nationally conducted compost survey and helped determine the current quality of composts. Woods End also examined the composting standards of several European countries.

SURVEYING GROWERS

CWMI surveyed home gardeners and commercial users, most of whom were vegetable growers; the rest largely were involved in nurseries or landscaping, with just a few growing turf or field crops. (By the nature of the survey, respondents tended to be compost users.) Results showed that along with compost, almost all residents used mulch, with fertilizers, potting soil, peat moss and topsoil also purchased, in that order. Few incorporated nitrogen-fixing plants, sand or other materials. Other growth media ranked lower in usage among industry respondents, with mulches, fertilizers and nitrogen-fixing plants topping the list. Next came potting soil, unprocessed organic material, peat moss, sand, topsoil and other materials, respectively.

Price was the main reason for the selection of a compost product by home users, with ease of obtaining the product right behind it. Results were the clear determining factor for industry users, followed by price, ease of obtaining the product, where it was made, ease of use, feedstock source and size of bag/bulk.

Home gardeners listed weed seeds as their top concern with using compost, followed by chemical contaminants, despite the fact that feedstock source was not a key determinant in product selection. Other factors, in order, were physical contaminants, inconsistency of product and unidentified feedstock. Weed seeds and inconsistency of product were tied as the biggest concerns about compost for industry users, followed closely by chemical contaminants. Nine of 47 had no concerns. Other factors listed were physical contaminants, unidentified feedstock, plant burn and excessive moisture, respectively.

According to the survey, 75 of 107 home gardeners buy products by the bag. Twenty-eight out of 47 industry users buy it in bulk. Both residential and commercial growers would like either a label or some form of written material to obtain information about commercial composts. Home gardeners ranked those sources above all others,

(Continued on page 77)

QUALITY COMPOST SEAL

(Continued from page 74)

including sales personnel, cooperative extension staff, classes/workshops and magazines. Organic matter, use instructions, pH, N-P-K, pathogens and maturity were the top items that home gardeners wanted to see on a label, while pH and N-P-K were the industry users' top choices.

CWMI looked at 11 different companies' bags marketed in NYS. All but one contained 30 lbs or less of compost, and eight had side product labels. On the whole, consumers' priorities were not reflected by the information on the bags. Very few listed data on organic matter, weed seeds or pH. Only half of the bags provided details on N-P-K and none gave information on pathogens. One positive aspect was that all but one bag provided some form of use instructions.

PROCESSING AND MARKETING

Testing is critical to any compost seal or labeling program. In a survey of 20 New York farm composting managers, all used temperature monitoring as an indication of what was occurring in the process. Twelve worked to regulate moisture content. Eight had N-P-K and pH tested. Testing of metals and pathogens was done infrequently and irregularly, if at all. Most respondents indicated that lack of testing was due to cost and the fact that they were not informed well enough on what they needed to test for. All farms indicated an interest in participating in a testing program.

Three participants of other label/seal programs were interviewed to determine whether the programs increased the value of their compost. Two interviewees belong to the California Compost Quality Council's seal program and one is in Portland, Oregon Metro Earth-Wise. Responses were quite similar. Producers have not been able to sell their compost for a higher price, but all are enjoying a network that is obtaining many more referrals for their products. One of the CCQC members found that other producers unable to sell their product before are able to do so now. Landscapers and farmers who were unsure before now know the guidelines published by the CCQC, and because of the required disclosure of the lab results, they trust these products. Also, agencies such as CALTRANS in California are beginning to require that CCQC-approved composts be used in their projects.

If these results can be duplicated in New York, it would be good news for the farmers in the CWMI study who are selling their product and the five

who plan to start. (Others either apply to their fields and do not have enough to sell or are just starting to set up operations.) The farms selling in bulk are receiving $10 to $30/cubic yard (cy), with an average of approximately $21/cy. There is no reason to assume that the composters who want to begin selling would not be able to achieve that range also. According to one report, the average amount received for bulk manure products in the Northeast is $15.50/cy and the range is $5 to $20/cy. However, yard trimmings composts can be sold for $30/cy as the high end of their range. Farmers marketing manure compost need to educate consumers to dispel the perception that yard trimmings composts are more beneficial. Most residential compost users do not realize that manure composts provide superior nutrient levels, weed suppression and plant disease suppression. If a labeling program could educate the public, manure composts might reach the upper price range also.

This July, a meeting was held at the NYSERDA office to get input from stakeholders. Based in part on the farm survey's findings that composting a mix of materials is the rule (see sidebar), it was decided that there was no way to easily distinguish between agricultural and nonagricultural composts, which raised the issue of whom should be allowed to participate in the label/seal program. Most agreed that farms taking other organics to supplement their manure and composters helping farmers to manage their residuals should be included. CWMI was charged with presenting several different label options for review by project participants and other stakeholders.

In preparation for a second phase of the project, a survey was sent to 11 domestic laboratories that could conduct the necessary analyses to determine the quality of NYS composts. The list of potential analyses was compiled from the survey of other programs to indicate what consumers deem important. Since weed seeds were the highest concern of both home gardeners and industry users, and few labs responded, a weed scientist was contacted to discuss methods for analyzing and testing for viable and dormant weed seeds in composts. NYSAR[3] in cooperation with CWMI proposes to work with farmers to analyze their finished product and implement adjustments where needed. This would make farm composters more confident about what they are producing and indicate how often farmers might need to test for different parameters. ■