

COMPOSTING OPERATION SHOWS GROWING SUCCESS

Word spreads about Oxford operation

BY ANDREI GURUIANU

Correspondent

OXFORD -- When Kim Marshman's husband got the idea of making compost on his farm, she laughed at him.

"I really did not think anyone would want to buy poop," she said.

Marshman, 36, owns The Barnyard, a farm and farmstand located at 3623 County Road 32 in Oxford. It's a 9-acre vegetable farm she started up in 1999 where she grows and sells everything from sweet corn and pumpkins, to squash, tomatoes, cauliflower and garlic.

Her husband, David, 37, is a partner in Marshman Farms, a dairy operation he owns along with his brother, John, and father, Bob.

"They never composted before," Marshman said. "They always just spread it on the fields to grow corn and grass to feed the cows."

The dairy farm has been in the Marshman family since 1856, but only recently began composting manure from the 350 cows on the farm and selling it to the public.

"We sometimes refer to it as Marshman Gold. We've been using it for years on our farms and people asked us, 'How do you get plants to grow like that?' " Marshman said.



Kim Marshman moves a bag of compost, a mixture of straw, paper shavings and cow manure to a waiting cart to transport to the Marshmans' farm stand. The compost must be allowed to ferment for two years before it can be used.



Kim Marshman carts bagged compost to the Marshmans' farm stand.

Photos by WAYNE HANSEN / Press & Sun-Bulletin

"We're believers in compost, I tell them."

Through reputation only, the lore of Marshman Gold has spread to many other small vegetable gardeners and now the Marshmans have another small source of revenue besides the dairy and vegetable operation.

"I've had great luck with it," said Kent Harris, a private vegetable gardener. "And I would rather patronize a local farm in any way I can. They're hard-working people and they're doing well, but it's only because they are hard working."

The Marshmans began selling compost in 2003 at \$3 for a 50-pound feedbag. However, the compost is sold by volume, not weight, because depending on weather conditions, rain could make it heavier and excessive sun could dry it out.

"This has all been word of mouth," Marshman said. "People like it because it's a good product. It's high-organic matter that's good for the plants and we do believe you're getting a better bargain."

The price is comparable to what you would pay at larger garden supply stores, she added.

Harris, 64, of Vestal, bought 75 bags from them last year and he swears by the quality of the product. He buys it solely to fill up the raised beds in his garden, which he uses to grow vegetables and flowers. So far, his 45 tomato plants have yielded 65 quarts of canned tomatoes and three more bushels he gave away to family and friends -- and he's still picking more tomatoes off the vine. Harris plans to buy 25 more bags by the end of the year to spread on top of the raised beds.

"It makes it a little easier in the spring to have some work already done," he said.

Composting is not the most complicated process, but it does take time. It can take up to two years for it to sit around and decompose before it can be bagged and sold. During the decomposing process, the manure also loses some of its odor.

"Fresh manure has a lot of heat in it," Harris explained. "If you put it right on your plants, it would burn them."

The Marshmans mix wood shavings with the cow manure to achieve the final result. It's a year-round process that is all done manually, with spring and

fall being the busiest times of the year. The operation yields about 300 bags of compost each year. In the springtime, the Marshmans bag compost about four times a week and then the operation slows down significantly in the summer.

"It picks up again in the fall as people clean up their gardens, get debris off it and nourish the ground," Marshman said.

Fall is a good time for avid gardeners to get preparatory work done and make sure the soil is ready for the next growing season. The Marshmans' compost operation stops in the winter when the compost freezes and they must wait until the first thaw to be able to work with it again.

West London Composting (WLC) opened its new £2 million facility at Highview Farm site in Harefield yesterday.

The in-vessel facility is licensed to take 50,000 tonnes of waste per annum, which should be converted into around 30,000 tonnes of compost. There are 16 vessels in total, used in two phases, or "barriers", of operation. Each vessel has a capacity for 150 tonnes of waste.

The two barrier system means that the site is capable of dealing with animal by products, a single barrier system by law would not be able to accept catering waste due to risk of contamination. WLC have also brought in a Komptech Crambo shredder that will process the waste before it is taken to the first barrier of the in-vessel system.

Managing director Martin Grundon visited sites in Germany and Austria to look at composting technologies and has used the knowledge in many of the facilities the Ruislip site uses. Mr Grundon said: "Compost recycling on the mainland is more advanced, they put more money into recycling so they can afford to pay for more impressive machinery. This site is modelled on European sites."

Reception

One idea that has come from Europe is the "reception" for trucks dropping off waste, a system used in composting facilities in Munich. The reception is a raised area leading to a pit that the dustcarts push the waste into, it allows the vehicles to dump their waste without driving into the already deposited material. This saves time when washing the trucks down afterwards and is less of a health and safety risk, WLC believe.

Each vehicle that enters the site will have an average turnaround time of about five minutes and the company doesn't believe that the increased

amount of waste they hope to receive will have a huge effect on this. Mr Grundon said: "We have a contingency plan if we receive multiple vehicles at once, we can bring them in next door to the reception, they will just take slightly longer to clean."

WLC are also planning to open a learning centre for local schools and colleges. Once it is open the company would invite schools along to look around and learn about composting. Mr Grundon explained that it is something the company would like to do and the centre should be up and running in the next year.

The company have already announced a contract with Hillingdon council to supply material for the facility, and revealed to letsrecycle.com yesterday that they have now signed a six-month contract with Brent council to take their green waste. Also in attendance at the opening were representatives from Harrow and Ealing councils, both of whom are thought to be interested in using the site.

Hillingdon signs contract with West London Compost (02.09.04)

The London Borough of Hillingdon has signed a long-term contract with West London Composting to compost material from its green waste collections.

West London Composting runs a £2 million in-vessel composting system at its Highview Farm site in Harefield.



West London Composting will take about 13,500 tonnes of green waste each year from Hillingdon at its Harefield site

The company will take about 13,500 tonnes of material from the high-performing London borough each year. The contract is for seven years, with three one-year extensions.

Hillingdon is thought to be the best borough in London at the moment for recycling and composting, with unaudited figures suggesting the council recycled 23.9% of its waste in 2003/04. The borough has already exceeded its 2003/04 and 2005/06 recycling targets.

Duncan Jones, waste development manager for the London Borough of Hillingdon said: "The agreement with West London Composting represents a fundamental step in securing a long term outlet for the compostable wastes handled by the borough.

"Being able to use the West London Composting facility is crucial to the ongoing success of Hillingdon's recycling programme which has seen the Borough achieve its statutory recycling targets 2 years ahead of schedule and as such is the only London Borough to do so," Mr Jones added.

Vessels

Material will be brought daily to the West London Composting site, where it will be processed with the company's Crambo shredder. Material is then transferred to one of eight composting vessels, which can each hold 150 tonnes of green waste. The waste undergoes in-vessel composting over seven to 11 days, reaching a temperature of 60 degrees centigrade for two consecutive days. The material is then transferred to a different set of eight vessels for the same process to be repeated.

At the end of the in-vessel process, the composted material is matured in an open-windrow facility for up to 10 days depending on end market requirement. Material is then screened producing a compost that the company said is "friable, moist and odourless, suitable for a wide variety of individual or commercial requirements".

West London Composting's standard product will be 10mm general compost ideal as a soil conditioner or for blending with sands, the company said.

Commenting on the Hillingdon deal, West London Composting managing director Martin Grundon said: "The Department for Environment Food and Rural Affairs has stipulated that local authorities must now make significant strides in recycling and composting, and we are delighted to be partnering with the London Borough of Hillingdon, to help it reach recycling targets in accordance with EU directives."

Viridor opens 30,000 tonne Surrey composting site (27.09.04)

A 30,000 tonne capacity composting facility has opened to serve the London Boroughs of Croydon, Sutton and Merton.

The plant at Beddington Farmlands in Surrey was built with a £2 million grant from the London Recycling Fund and will be managed by Viridor Waste Management. The company will compost green waste from the boroughs, which was previously sent to landfill.

Collin Drummond, chief executive of Viridor said: "The plant has been custom-designed and built using state-of-the-art technology to control the composting process. It currently has a capacity of 15,000 tonnes per annum and this will rise to 30,000 tonnes, giving further opportunities to provide

capacity for other customers from all sectors and directly contribute to London's strategic waste recycling objectives."

The facility works by putting the green waste through a screener to remove contaminants such as plastic and then uses a forced-air aerobic system. The green waste is put through six in-vessel tunnels and kept at around 60-65 degrees for ten days before it is transferred into windrows for further maturation.

Trials of the system have been conducted at the Farmlands, on which Viridor also manages a landfill and sewage treatment works, for the last three months. The first batch of compost has been used for land restoration at the 130-hectare site and now Viridor is researching markets for next batch.

Standard

Mr Drummond said: "It is intended that the compost produced will gain the PAS composting standard, which will ensure a high quality product and help to secure long-term markets in the area."



Jenz composting machinery at Beddington

The site has planning permission to compost animal by-products but is initially just working with green waste. Phillip Wallace, a consultant at Enviros who worked with Viridor on designing the system said: "We are not fully geared up to take animal by-products but we do have planning consent. The next phase is to prepare to take kitchen waste."

Viridor said that it is considering building an anaerobic digester that would be used to treat household kitchen waste to produce a soil conditioner and fuel gas to "generate green electricity."

In addition to this the company is currently going through the planning process to open a 55,000 tonne MBT facility at Beddington next year, also funded by the London Recycling Fund.

Speaking about Viridor's MBT plans, which also feature a number of other sites around the country, bid manager at Viridor, Richard Jenkins said: "A main consideration of ours is the results of the Environment Agency's study into MBT outputs and what can be done with them.

"We are initially looking at producing a rough compost at Beddington. We will only be producing about 18,000 a year, so that's not a huge amount. We're not looking for markets," he revealed.

MUNICIPAL COMPOSTING

Composting in the Northland

Erin Jordan

The Western Lake Superior Sanitary District in Duluth uses a recipe mixing food and yard waste to produce compost for Northland gardens. It's easy, effective, and a great way to reduce, reuse, and recycle.

"We're sending less to the landfill. It's a reusable resource, generated locally, processed locally. And then it's sold locally." said WLSSD's Operations and Maintenance Supervisor Heidi Ringhofer. She oversees the composting process.

Residents drop off yard waste and WLSSD collects food waste from businesses. Environmental Program Director Susan Darley-Hill says even Northland homeowners can drop off table scraps.

"It's not hard at all. It's just getting used to doing things in a little bit different way." said Darley-Hill.

People need to use special biodegradable bags available at local stores. There are even plates, flatware, and cups on the market that can also break down in the piles.

"This looks like plastic but it's actually made from polylactic acid. And this kind of material and you have to make sure it's the polylactic acid that you're using can be put in with the food waste and it will be broken down, biodegraded naturally. And there won't be any residue left." said Darley-Hill.

Once everything is onsite, it is mixed and piled into rows. Then microorganisms take over to "cook" the material.

"Most of our piles get up to 140, 150, 160 degrees. We're required to maintain 130 degrees for seven days. That helps the bugs do what they do to break down - kills pathogens and weed seeds." said Ringhofer.

When done the compost is sifted and only the best stuff gets sold at a discount price to Northland residents.

"It can add some nutrients. It helps retain the moisture. It improves the soil." said Ringhofer.

When added to clay, it breaks up the soil making it easier for plant roots to take hold and get the needed nutrients.

"Or you can add it to sandy soil to help retain moisture." said Ringhofer.

At present the only food waste drop off site is at the yard waste drop off site on Courtland Street in Duluth. However WLSSD does plan on adding more sites next year.

RECYCLING PLAN CENTERS ON ORGANIC WASTE

By IAN URBINA

New York Times

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As the city prepares to unveil its 20-year plan this week for getting rid of its trash, Mayor Michael R. Bloomberg will also have to explain how to deal with a different challenge: actually reducing the amount of garbage New York produces and sends to landfills.

Waste management experts say that by changing the way New Yorkers think about their waste, the city can exploit some innovative measures to reduce sanitation costs. Options include encouraging residents to increase the composting of food waste and yard material, expanding recycling programs and encouraging the recycling of computers and cellphones.

But one of the most contentious issues will be whether to expand the use of garbage disposal units, which grind down food waste so that it can then flow into the city's sewage system rather than be thrown away. In recent years, more New Yorkers have been using the units as laws regulating their use have been relaxed. The question now is whether to let restaurants and grocers use them, too.

"The Bloomberg administration is rightly seeking to streamline the movement of trash within the city," said Mark A. Izeman, a senior lawyer with the Natural Resources Defense Council, an environmental advocacy group. "But unless it takes additional concrete steps to shrink our monumental trash loads, the city will continue be at the mercy of escalating export costs."

In the last three years, the cost of hauling and burying the city's trash has risen about 46 percent, and the operating budget for the Department of Sanitation has increased by about \$288 million over the last six fiscal years, to more than \$1 billion.

The mayor's 20-year plan for recycling plastic, glass and metal seeks to reduce the city's waste problems by ensuring that over the next several years about 20 percent of residential trash will not end up in landfills.

The city may consider imposing rules on electronics makers to encourage recycling on that front. While computers, cellphones and other types of electronic equipment do not currently account for a large part of the city's trash, they do represent the fastest-growing portion. Electronic products are built with toxic chemicals that can be hazardous when they are released into the environment after being incinerated or dumped into a landfill. The city could, for instance, require computer makers to accept the return of their products for recycling.

By far the most challenging trash to handle is organic material like food, leaves, and yard clippings, because of the smell created by these materials when they rot and the vermin that are attracted as a result. But this rotting is also a potential asset if the city considers expanding its efforts in large-scale composting. Not only does such composting result in a material that can be used for fertilizer, but it also releases gases that can be captured for energy.

Environmentalists argue that because composting lowers the amount of trash going to landfills, it decreases the pollution caused by trash trucks and can save the city money. Composting also captures the gases released during decomposition, some of which have been tied to global warming, rather than allowing for their uncontrolled release into the environment from landfills.

Starting in 1989, the city has run various waste reduction programs, including a food waste composting operation at Rikers Island and leaf collection in 35 of the city's 59 sanitation districts, saving an estimated 47,000 tons of organic materials from being carted to landfills each year. The Bloomberg administration ended these programs in 2002, but the City Council reinstated them in June 2003.

"This on-again-off-again relationship with composting and other programs is a huge problem because the public has no idea what rules are in effect at any given moment," said Councilman Michael E. McMahon, a Staten Island Democrat and chairman of the Council's waste management committee.