

## Owner's Report On Compost Turners

superintendent of Sheridan's city landfill, which gets 50 to 60 tons per week of yard and garden waste, wood chips, sawdust, horse manure and straw.

A 1998 **Fecon Inc.** 9-ft. windrow turner was recently purchased for the operation (Fecon Inc., 10350 Evendale Dr., Evendale, Ohio 45241; ph 800 528-3113 or 513 956-5700).

Pulled with a 165 hp 4-WD tractor, the unit is equipped with a Deere engine that's remote controlled from the cab. Paul saw the machine demonstrated on-site but has yet to use it because it's been too wet.

"We've got 2 ft. of mud right now and if we used the turner, which is a very heavy machine, we'd sink in up to the hubs," Paul says. "I know already it's going to have to be used on an asphalt or concrete surface to operate properly. We're going to asphalt a 4-acre site this summer so we'll be using it at least four hours a week after that. From what I've seen so far, however, I think there could be several design improvements made. For example, the machine could use flotation tires on front and bigger flotation tires on back. Also, the conveyor doesn't seem to be able to handle the capacity the drum delivers when operating in wet material. In my opinion, it could use more hydraulic power or a bigger drive motor."

Before purchasing the machine, the landfill used a dozer and front end loader to turn its 10 ft. by 15 to 20-ft. wide windrows, a time-consuming process. The 500,000 tons of compost the facility makes a year is given away to area residents for the asking.

"There's a pretty fair amount of expense involved, but it hasn't bothered the city fathers yet," Paul says.

**Brian Hoogland, Longmont, Colo.:** Four years ago, when Brian was 16, he started a commercial compost business called Soil Rejuvenation. He uses manure from his father's and grandfather's 800-cow dairy operations. Today, Hoogland produces 5,000 tons of compost a year, which he sells mostly to area homeowners for \$17.50 per ton.

He started with a 1994 **Wildcat Mfg. Co.** FX700 machine equipped with 7-ft. drum for turning 12 to 14-ft. windrows. He just recently bought a larger, heavier-built 1992 **Wildcat CX700** equipped with 8 1/2-ft. drum to use along with his other machine.

"We had some problems with the first machine," he says. "The bearing wasn't enclosed and baling twine and manure would get into it and blow it out regularly. Bearings cost \$200 apiece, so we machined an enclosure for it to solve the problem. Newer models are available with an optional enclosure."

"The used **Wildcat** we just bought is built better. It has an enclosed bearing and has a more open design for maximum gas exchange when turning windrows, which are laid out on a 5-acre clay-bottom pad at each farm.

"We started our business when commercial fertilizer was cheap and you couldn't even give away manure. Commercial fertilizer has gone up in price in the last year or so and more people are interested in our product now.

"Compost is ideal for organic farmers or

**"When Brian was 16, he started a commercial compost business."**

farmers who just want to improve their soil."

**Scott Schaible, New Scotland, N.Y.:** Scott researched compost turners for two years before choosing a 1996 **Scat Engineering** model 481 with 6-ft. lift conveyor.

"Of all the machinery I use in my business - screening machines, stacking conveyors, dump trucks, tractors and skid steer loaders - I'm the most satisfied with the turner," he says. "It's the only one on the market that actually inverts windrows rather than stirring them up, which helps to eliminate weed seeds from the dairy manure and bedding we compost."

He gets manure from a 325-cow dairy herd five minutes away from his site, which consists of 125-ft. windrows on a 30,000 sq. ft. asphalt pad.

"Our operation was not cost-effective until we found the right machine to produce the right quality compost," he says.

**Joel Bussis, Hamilton, Mich.:** Economy was the main reason Joel and his father, John, decided on a used **Sittler** 12-ft. turner two years ago. Equipped with a PVC pipe watering bar, the turner came with a 105 hp International 1026 Hydro tractor and several rolls of windrow covering from a private party in Toronto, Ontario.

"The whole package cost less than any of the new turners we looked at," says Joel. "We're quite satisfied with the machine because it does such a good job of mixing and inverting the 11 by 4-ft. windrows of caked turkey manure we make with our H&S manure spreader with beaters removed."

"We had composted the dead birds from our operation for three years before we started composting manure. We now generate about 1,500 tons of compost a year. We package it in 1 cu. ft. bags that sell for up to \$7.99 apiece at garden centers and nurseries in our area."

Trestle Town Turkeys decided to compost the waste because it wasn't feasible to spread all the manure from its 100,000 birds on the farm's 50 acres. "That amount of manure would have burned everything out," he says.

Composting would be suitable for any livestock operation with a good deal of solid



Scarab's new self-propelled turner is designed for smaller operations. It's competitive with pull-type machines because tractor isn't needed, the company says.

### Self-Propelled Turner For Smaller-Scale Operations

The first "affordable" self-propelled windrow turner recently rolled off the assembly line and was immediately shipped off for use in Egypt, says Scarab Manufacturing and Leasing Inc., manufacturer.

"These machines allow smaller scale operations the ability to process waste with a much smaller capital outlay than other big self-propelled models," Scarab says. "We believe these machines are competitive with pull-type machines because you don't have the wear and tear on a tractor."

It's powered by a 185 hp Cummins diesel and features a 5-ft. high tunnel.

A 28-in. dia. drum is driven by a single hydraulic motor attached to one end. Tear-drop shaped brackets on the drum are de-

signed to hold a variety of Scarab or aftermarket flails.

Front 13.6 by 28-in. drive wheels are chain and sprocket driven and are powered by separate hydraulic motors. Rear caster wheels are fitted with 9.5L by 15-in. tires.

It has a frame constructed of 4 by 8 and 4 by 4 1/4-in. tubing and a manual over hydraulic lift system for the left front, right front and rear that raises the machine by up to 12 in.

Sells for right at \$88,000. Optional cab sells for \$5,900.

Contact: FARM SHOW Followup, Scarab Manufacturing and Leasing Inc., HCR 1, Box 205, White Deer, Texas 79097 (ph 806 883-7621).

manure, such as feedlots or dairies, he says. Whether it's cost-effective depends on how you look at it, he adds.

"If you're going to use the compost yourself, it is," he says. "If you're going to market it, you have to find the niche where you can easily get rid of the product at a reasonable price."

**Kenneth Stone, Winton, Calif.:** "These machines are so low-maintenance and reliable I plan to buy a third one this year to keep up with the growth in my business," says Kenneth who owns 8 and 10-ft. **HCL Machine Works** turners. He uses them to produce 40,000 tons a year of compost from cotton gin trash and dairy manure.

"Before I bought these machines, I used a big self-propelled **Scarab** machine that sold for \$160,000. I like these \$20,000 machines better because they make a better quality compost and more of it. The self-propelled machine turned the windrow too fast and made windrows that were too big. Besides having to hire skilled operators, the self-propelled machine also used \$100 a day worth of fuel. The pull-type machines I use now cost less than \$20 a day in fuel to operate and they don't require skilled operators to run them. That's important because we use them nine hours a day, six days a week, spring through fall.

"The advantage to the farmer is that the product I sell him is a lot better than the raw product. It's already broken down and ready to go to work in the soil when he gets it."

Nevertheless, even lower-priced pull-type turners may not be for everyone, he notes.

"You'd have to have a fairly large operation before they'd pay off, in my opinion,"

he says.

**Gene Love, Windsor, Colo.:** "Practically all the dairies in this neck of the woods have gone to composting because it's more satisfactory to the end user and can be done year-around," says Gene, who recently started composting manure from his 400-cow dairy.

He uses a 1996 FX700 10-ft. turner from **Wildcat Mfg. Co.** "It's working out just fine for us," he says, "although I really don't have anything else to compare it with."

"I make 14-ft. wide windrows on a 3-acre site," he says. "I lengthened the arm on the outer stabilizer wheel on the side of the machine 2 ft. to clear the windrow."

Love spends 30 to 40 hours a week composting and feels it's suitable - although not always cost-effective - for any size dairy operation and may even be required some day, he feels.

"The EPA is getting more and more involved in manure management and livestock operations have to get rid of their manure somehow," he says. "This is much more acceptable than simply spreading raw manure out in the field."

**Bob Ahrenstorff, Lake Park, Iowa:** Bob operates a small cattle feedlot and for the past two years has been using a **Brown Bear** 3-pt. aerator, mounted on his New Holland 9300 Bi-Directional tractor, to compost the manure.

"We haul the raw manure in trucks to another site where we use the aerator to windrow and aerate the manure at the same time. The manure is about 70 percent moisture before we start composting. We turn the

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### Where To Get More Information

If you're interested in giving composting a try but aren't sure where to get information on starting up, a new composting guide might be what you need.

The 186-page "On-Farm Composting Handbook" (Pub. #54) covers everything you need to know about composting. It includes chapters on the benefits and drawbacks of composting, the process, raw materials, methods, operations, management,

site and environmental considerations, use and marketing. It also contains a chapter on composting economics based on case studies.

It sells for \$20 plus \$3.50 S&H. Contact: FARM SHOW Followup, Northeast Regional Agricultural Engineering Service, 152 Riley Robb Hall, Cornell University, Ithaca, N.Y. 14853 (ph 607 255-7654).