## **Manure Marketing**

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indicated he wants to move gradually into local retail markets and do some advertizing locally to see what the demand for the product will be.

It's not a bad idea, according to the poultry farmer, considering the demand for poultry manure as fertilizer rarely gets above \$40 a ton. Anything below that, and the farmer couldn't make money on the product.

Wolgemuth's intent is to market as much of the product to fertilizer companies as he can during times of peak demand (January through June). Despite supply and demand challenges that occur occasionally, Wolgemuth is able to locate additional buyers at nonpeak times if necessary.

Also, Wolgemuth is testing how the composted manure performs with his own 130-acre corn crop at the farm.

Wolgemuth has birds under contract from Heritage PMS, Inc. (140,000 birds) in addition to the birds he owns (70,000 birds). He farms with his wife, Karen, and son, Jason, 20.

## Manure Applied At Half The Cost

While many farmers pay as much as \$40-\$50 per acre for commercial fertilizer, one Lancaster County farmer said his fertilizer business can spread the nutrient-rich manure for about half the cost per acre.

Jay Stauffer, who operates a 90-acre Holstein beef farm near Columbia, began custom-hauling dry layer house manure about five years ago. Since that time he has built up a customer base of farmers in Lancaster and surrounding counties.

Stauffer said there is a strong demand for layer houses to remove the product and for farmers to utilize it for their crops. "There's such a demand

there and it's such a cheap sourgrace of fertility," said Stauffer.

"A lot of farmers have told me ally that it's a good service and they're pleased with what we're doing."

Stauffer, with part-time assistance from Chris Kaley, utilize old potato trucks that have been specially converted to spread the dry manure.

Using skid loaders, Stauffer and Kaley load manure from local layer houses, such as Esbenshade's Farm, into the truck. Stauffer charges the customer for tonnage and mileage—the closer the farm is to the house, the less expensive to apply it.

The truck, with a debridging bar, has a capacity of 16-17 tons (compared to conventional spreaders of about 5-6 tons) and has been modified with front flotation tires in front and back tandem axles. The bed has a special web that moves the manure through an adjustable hydraulic door in the rear. The door spacing determines delivery rate, which depends on soil fertility conditions and how much the farmer wants applied. The web moves the manure through the door, where it encounters an agitator that breaks up the manure. The manure particles fall through the agitator to a broadcast spinner, which ejects the manure in a 12-foot swath on either side of the truck.

The hydraulic doors can be opened in one-ton per acre increments from two tons to eight tons per acre, according to Stauffer. Ground speed of the truck is also adjusted to fine-tune the rate.

Stauffer said he takes regular tests of the manure contents at the house before loading the manure to the truck.

There are two trucks in service in his application business. Another truck will be fitted with other flotation equipment to reduce the chances of soil compaction.

"I'm definitely concerned

about compaction," said Stauffer. "The biggest thing is we stay off the fields when they're wet and apply manure when the fields are in shape. We can do compaction damage, but with correct management — waiting until it dries or putting manure on in the fall — has helped a great deal with compaction."

Many of his customers are also concerned, which led Stauffer to ensure his trucks are equipped with anticompaction equipment.

Stauffer said farmers should obtain soil analyses before determining the rate at which he should apply the poultry manure.

But the manure, which is much less expensive than commercial fertilizer, is readily available.

"I didn't know there was such a demand for a spreader truck," said Stauffer. But the customers confirm the need for the fertilizer and someone to apply it.

Stauffer said farmers can see direct benefits of the fertilizer, in increased yields.

"A number of people have gotten the manure last year and called and ordered it again, and have told me you can see right where you spread it — the pasture is green.

"So we're getting good feedback like that. I'd like to hear from the farmers what's going on," he said.

During the summer, Stauffer travels to visit customers to see what his business can do to upgrade the service.

Stauffer has been using the manure himself for a number of years, and noticed the demand for layer manure spreading almost right away. "I saw there is a missing link there. We're looking to fill that missing link," he said.

Stauffer farms with his wife Trena and sons Jay Donald Stauffer, Jr. (J.D.), 7 and Jefferson, 3 near Columbia, Pa.



This manure spreading truck has a capacity of 17 tons (compared to conventional spreaders of about 5-6 tons) and has been modified with front flotation tires in front and back tandem axies. It can spread manure 12 feet to either side.







The location of farm number 2 at Coffee Street houses about 135,000 birds from which Clugston, with help by full-time worker Jay Neff, pictured here, collects manure. In a typical chicken house, manure is normally removed at about 50-55 percent moisture, according to Clugston. But the special drying process dries manure here to about 30 percent moisture.

## Layer Manure Dried And Sold

Poultry manure may prove to be a marketable product, but it must first be dried to the point where it is useful.

At the 48-acre Coffee Street Farm near Letort, Lancaster County, under the supervision of farm manager Randy Clugston, layer cages are specially designed to allow circulated air to blow-dry the manure. A conveyor moves the dried down manure outside to a loading dock, where it is scooped up and shipped to several mushroom farms in Chester County.

Clugston said he ships about two loads of chicken manure a week, for more than 100 loads every year.

The farmer operates a 180,000-bird layer operation for Don' Hershey. Farm one houses about 45,000 birds. The location of farm number 2 at Coffee Street houses about 135,000 birds from which Clugston, with help by full-time worker Jay Neff, collects manure.

Chicken manure is normally removed at about 50-55 percent moisture, according to Clugston. But the special drying process at Coffee Street Farm is dried to about 30 percent.

"With manure at 30 percent, you can sell it for a little bit more," he said. "You can get a little bit more for a ton of it.

because the customer's not buying moisture."

Air used to dry the manure is used for the ventilation of the chicken house. Plus, the manure tests higher for nitrogen (about 3 percent nitrogen overall) than broiler manure.

Clugston is careful to keep the manure in a range no lower than 3 percent nitrogen and no higher than 5 percent.

"If I start to get out of those balances, which I do not, they would be concerned," he said.

Layer manure, according to Clugston, doesn't have the other material that mushroom soil operations don't need, such as wood shavings or other bedding products.

"They know what I have," said Clugston. "I have no other product other than pure, straight chicken manure. And they like that. It has a higher percentage of nitrogen in it—they also like that."

Clugston equates the ingredients in manure on the same level as feed for the chickens. To make the right mushroom soil, the right ingredients, including the correct type of manure, are necessary.

"For the mushroom people, my chicken manure is just like the feed ingredients when I feed my chickens," he said. "It's not just a crude thing, where they throw so much chicken manure with so much hay. It's so organized, analysed. They

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