

COUNTY FARMER TESTS MANURE INJECTOR

Technology Seen As Environmentally Sound

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By CANDACE SIPOS



Jeff Porter (left) of the USDA Natural Resources Conservation Service in Greensboro, N.C., and Charlie Aller of the Valley Conservation Center in Staunton inspect a poultry litter injection machine at Anthony Beery's Rockingham County farm. (Photos by Nikki Fox / DN-R)



Anthony Beery talks about the use of a manure injection machine to a group touring his farm with the Chesapeake Bay Agriculture Networking Forum.

MOUNT CRAWFORD — Standing in front of more than 20 agency officials and others interested in new farm technologies, Mike Phillips quoted an old agriculture adage, the first stanza of the FFA creed.

"I believe in the future of [agriculture], with a faith born not of words but of deeds. ... The better things we now enjoy have come to us from the struggles of former years," said Phillips, who works in the Harrisonburg Natural Resources Conservation Service office.

"I think that will sum it up," he said.

Phillips was standing on a Mount Crawford farm where dairyman Anthony Beery has been testing manure injection equipment, relatively new technology touted as an environmental boon.

Officials attending the Chesapeake Bay Agriculture Networking Forum in Staunton visited Beery's farm this month to check out his dairy manure injector and a poultry manure injector owned by Virginia Tech.

Compared to surface application of manure, injecting the fertilizer reduces the amount of ammonia that seeps into the air and the number of pollutants that run into the Chesapeake Bay watershed. It also reduces odors, gets more nitrogen to crops and reduces the amount of extra fertilizer a farmer has to purchase.

"This is such a clear win for water quality," said Kristen Hughes Evans, executive director and president of Sustainable Chesapeake. She wondered aloud the million-dollar question: How can officials make the equipment marketable to local farmers?

"You need to show improved yield," Beery emphasized. "There's so little time to get this stuff done, and money's always an issue."

This will be the third year Beery will use the \$50,000 dairy manure injector, purchased with a grant from the National Fish and Wildlife Foundation.

The main drawbacks of the dairy manure injector are time and cost, he explained, adding that the injectors also are hard to come by.

It takes him roughly 20 to 30 percent more time to inject manure as opposed to spreading it on the field's surface, and it costs about \$30 more per acre, although a cost-share program through NRCS essentially covers that cost.

If farmers are made aware of the cost-share program, the practice might start to catch on, Beery said, but he explained an additional hurdle.

"Another piece of the puzzle would be for a custom operator to get into manure injection, as well, just to provide that service on a broader scale," he said, adding that custom operators are hesitant to put thousands into new machinery where there's no demand. And right now, there's no local demand, he said.

While he hasn't seen a significant increase in yield thanks to the machine, which may be in part due to dry conditions last year, he believes he'll see improvement in his soil's organic matter over time.

The poultry litter injector, which was also purchased through a NFWF grant, needs some fine-tuning, officials said.

"It hasn't performed as well as we thought it would," said Rory Gilmore of Virginia Tech.

Because poultry litter in the Valley contains more wood chips than it does in Arkansas, where the machine was designed, it doesn't collapse and move through the machine as well as hoped.

But Phillips, who tested the injector on his farm in November, has seen positive signs on that plot.

"You can see how it is greening up," he said, holding a recent picture of the field.

Maybe this "struggle of former years" — a fight to figure out the most economical and effective way to inject manure — will pay off in the future.

Contact Candace Sipos at 574-6275 or csipos@dnronline.com