Farmer Overcomes Fear

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ents, went down the steep slope, directly into a stream which feeds into the Conococheague Creek. The creek in turn feeds into the Potomac River. The river, inevitably, makes its way into the Chesapeake Bay.

Another, older manure storage area, built in 1977, wasn't cleaned out in years. Burkholder discovered that four feet of sediment had built up over the years, and massive amounts of nutrients were leaking into the nearby creek.

The dairy farmer became aware of the serious problems, and needed ways to solve them.

Burkholder, fearing DER fines, decided he had to do something.

Requested help

In the fall of 1990 the dairy farmer requested, through the local conservation district and Soil Conservation Service (SCS) office, help from the Chesapeake Bay Foundation. SCS engineers and field representatives visited his farm and assessed the situation moving him up in priority because of his dire situation — and drew up plans.

In the spring of 1991, with cost sharing from the Agricultural Stabilization and Conservation Service (ASCS) and the Chesapeakc Bay Program, Burkholder was able to clean up the old pit. He also installed spouting to clear barn roof water, and put in place a square, 300,000-gallon capacity, concrete dry manure basin with ramps. He also banked and sealed off the pushoff to stop the flow of water down the slope. He also put in a poured concrete sediment alley (which acts as a terrace to stop erosion and to control the flow of water into the stream).

With a lot of his own money, Burkholder set up and refurbished several paddocks to help control nutrients. For the "whole farm" approach to solving the problems, Burkholder is grateful — and for his work, the Pennsylvania Association of Conservation Districts (PACD) recently recognized the farm with the 1992 Clean Water Farm Award.

"I was scared about going in and signing up with the program," said Burkholder. "I didn't want to get into trouble. But I should have realized that they were here to help."

Suspected problems

Burkholder said for years he suspected problems. He had taken over the dairy in 1979, bought out the equipment and animals from his father in 1984, and finally purchased the farm in 1989. Through those years, upkeep on the farm (because of his massive debt load and trying hard to make payments) decreased.

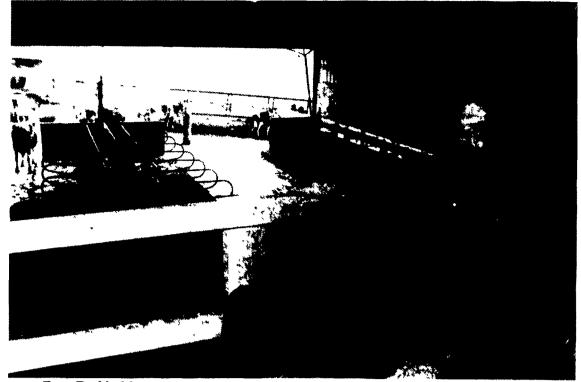
Something had to be done.

"The stream was just 50 feet from the pit — I never measured it, but the bank stops and it's a stream, and it's as close to the stream as you can get," said Burkholder. He was able to make several adjustments and improvements to the suggested plans — all within acceptable limits. In the first quarter of 1991, work began, first with spouting installation, and then



Burkholder was able to bank and seal off the pushoff to stop the flow of any water down the slope. He also put in a poured concrete sediment alley (which acts as a terrace to stop erosion and to control the flow of water into the stream) where he stands.





Evan Burkholder constructed this platform over the stalls to view cows in heat and supply feed to the troughs.

with the construction of the dry pit.

Burkholder said the spouting, for rain water, was installed to divert only clean water directly into the stream. Then, the first manure pit was cleaned out and sealed off with a concrete floor. A square-shaped dry pit, holding about 300,000 gallons, was constructed. (The 8-foot deep pit is scaled off with 1 foot of concrete on 4-foot footers on a 4-inch concrete floor. The banking surrounding the pit consists of 6 feet of clay.)

Clean it out

The pit's ramps allow accessibility to clean it out. While many farmers use the standard circular pit, which is easier to agitate than a square pit, Burkholder said "time will prove there's a problem" with the circular manure storage structures, because they will be hard to clean out.

But as for the old manure pit, Burkholder said they didn't think anything of it.

"It was three years before we cleaned it," he said. "We didn't think anything — it's evaporating. When I told (the conservation agencies) that, they' said it was leaking! Not evaporating leaking!"

Burkholder said the family spend days cleaning out the old pit. Later on, they found out that in order to get cost-sharing in their county, they had to provide the pit with a concrete bottom to prevent lcaking again.

Improvements made

All these improvements were made to continue the operation of the farm, according to Burkholder.

"I had to do it simply to be able to keep farming," he said. "I knew someday somebody would catch me putting manure into the streams. It was just a matter of time. It wasn't *if*, it was just *when*."

The projects to improve the stream water quality to and solve the problems of manure runoff cost approximately \$55,000. About \$30,000 came from the Bay program and \$3,500 from ASCS. The rest, \$22,000, came out of Burkholder's pocket.

Burkholder said he spent about \$16,000 of his money the first year, and admitted he was lucky to spend the money when the price of milk was high. "I spent my money in a good year and got most of their money in a bad year," he said.

Impressed farmer

The "overall" approach to solving the farm programs is what most impressed the dairy farmer. As part of the Bay program, he brought \$30,000 into this area that normally wouldn't have come in."

His story went out to several area newspapers. He has received feedback from other farmers who had severe nutrient management problems that found out and now are implementing plans from the Bay program and the local conservation district.

Went well

"Everything really went well here and I didn't have a problem," he said. "When the Chesapeake Bay does it, they do the entire farm. They don't want your farm to ever be a problem again."

Burkholder said the experience dispelled any fears he had with working with government agencies.

"I was impressed. People said, 'Oh, man, don't joint up with that, you'll be sorry.' But they came out, and said, 'What's your problem? What do we need to do?'

"The idea of the award program is to get the message out that you don't have to be afraid," he said. "So many people say, 'Oh, we don't want to deal with the govern-

'I had to do it simply to be able to keep farming. I knew someday somebody would catch me putting manure into the streams.'

also had his manure tested. "When I saw the nitrogen in that manure, I thought, wow!" Burkholder said the Penn State Agronomy Guide said an average test will provide about 2.8 percent nitrogen per gallon of manure. His tested, from one pit, at 3 percent and another at 2.5.

Because of the results, recommendations suggested that the dairy farmer refrain from applying starter fertilizer on corn and other crops. Also, less manure had to be spread, and Burkholder was able, with the installation of a manure management plan, to carefully track and apply only the manure amounts needed. "Possibly I'll never use starter again," he said. ment. They won't hold up their end.' But they do come back to check it and make sure it's working.''

Problem prevalent

Burkholder said the problem is prevalent everywhere. He said many farmers inherit a farm, originally built to handle a few animals, which has grown way out of prop-

Aubrey, left and Austin ("AJ") fork over hay to the calves at the Burkholder farm.

Require plans

Burkholder said many townships and most farm banks require nutrient management plans. Banks especially won't give a farmer credit without them, because of possible future liabilities for nutrient pollution from farms.

Nevertheless, Burkholder believes there were many benefits from the work on the farm.

"It's worked out that I'd do it Lori, and sons Au sooner or later," he said. "It 5; and Ashlin, 3.

ortion to its original design.

"Manure pits are an evil of farming — I mean, it's manurc! But managed properly . . . I can look back now and tell any farmer, do it. Stop and think what you're doing, though. Just don't jump in and build one pit."

Burkholder, on the fourth generation family farm, manages 123 acres and rents an additional 35 for a total of 132 tillable acres. His registered and grade Holstein herd (85 altogether, 76 milking) averages 20,313 lbs., 626p, 734f. The cows are milked with a double-4 parlor. Burkholder raises an additional 65 replacement stock and grows about 60 acres of corn and 72 of alfalfa.

Burkholder farms with his wife, Lori, and sons Austin, 6; Aubrey, 5; and Ashlin, 3.