New mobile laboratory to aid farmers with manure

BY SUZANNE KEENE

KLEINFELTERSVILLE – Lebanon County farmers got a sneak preview this week of a new mobile nutrient laboratory that will be available to them and other farmers in the Chesapeake Bay watershed this spring.

Developed jointly by Penn State University and the Pennsylvania Department of Environmental Resources with funds from the Chesapeake Bay program, the mobile laboratory will help farmers determine how much manure and commercial fertilizer they should be applying to their fields.

The farmers got a look at the lab during an Extension-sponsored manure management field day held at Harold and Donald Bollinger's dairy and poultry farm in Kleinfeltersville.

The mobile nutrient laboratory, which will travel to farms in the Chesapeake Bay watershed this spring, is fully equipped for soil testing and manure analysis, explained Russell Wagner, a nutrient management specialist with the Bureau of Soil and Water Conservation

Soil testing and manure analysis are not new to farmers, they have been using them for years, but never before has the laboratory come to the farmer.

"What we're doing is making it mobile and putting it all under one roof," Wagner said.

With the mobile unit, a farmer will be able to to get the results of his soil sample and manure analysis the same day he takes them.

The mobile laboratory is also equipped with an Apple II computer that will process the data from the soil and manure tests into a recommendation for manure application. Bureau of Soil and Water Conservation employees, who will man the mobile unit, will plug information provided by the tests in the computer and have answers for the farmers in just a few hours.

Armed with this information, farmers can apply manure and commercial fertilizer to their fields in the correct amounts.

Similar tests done through the laboratory at Penn State University have helped Harold and Donald Bollinger, who hosted the field day at their Willow Maple Farm. Through tests, the Bollingers learned that they could cut back on commercial fertilizer, a move which saved them \$35 an acre on 75 acres of corn



'He saved over \$2,000 because he knew what he had in his manure,'' Wagner explained.

Applying manure in the proper amount has other benefits as well. Test plots on the Bollinger's farm have indicated that when too much manure is applied, yields are decreased.

"There is a point where putting too much on hurts the farmer's yield," Wagner explained.

So if the additional manure is actually hurting crop yields, the farmer is wasting precious time applying it.

The Bollingers added that an excess of manure in the soil raises the level of nitrates in the water, a condition which lowers milk production and hurts herd health.

Currently, the Bollingers are filtering nitrates and sulfates from the water for their cows. Since installing the filtering system, Donald Bollinger said, they have noticed a marked improvement in milk production and herd health.

The Bollingers have 44 cows milking and 30 head of young stock. They also have 70,000 broilers.

Wagner and the other nutrient specialists who will man the mobile unit, hope other farmers will see similar benefits from soil and manure testing and make it a regular part of their routine.

"What we want to do is to take it (the mobile laboratory) out to somebody who isn't doing this to show them how much they can save," Wagner said. 'It's an educational tool."

The mobile laboratory is free to farmers in the six-county area encompassed by the Chesapeake Bay watershed – Adams, Chester, Dauphin, Lancaster, Lebanon and York.

Because the unit must service such a large area, Wagner said the county Extension and Conservation Districts will take care of the scheduling.

'We can't service everyone," he said, but they will try to reach as many people as possible.

The 40 farmers attending the manure management field day on Tuesday also got a look at the Bollinger's lagoon manure system, which they installed four years ago. The Bollinger's system includes a storage pit under the dairy barn and an earthen bank storage pond with a concrete floor

The storage pit under the dairy barn is pumped into the lagoon once a month, while the lagoon itself is pumped out twice a year When applying the manure, the Bollingers inject it directly into the soil.

With this system, Donald says, they save time and money through lower fuel and fertilizer costs. And by injecting the manure, he said, they have less runoff and almost no odor.

The Bollingers financed the manure system on a cost/share basis with the ASCS.



Russell Wagner, a nutrient management specialist with the Bureau of Soil and Water Conservation, demonstrates the use of the Apple II computer in the mobile nutrient lab. Wagner and other nutrient specialists, will be manning the lab when it makes its rounds to area farms in the spring.

