

GRASSROOTS APPROACH SOLVES MILKHOUSE POLLUTION

Getting back to basics helps both the environment and Ontario dairy farmers. That's what University of Guelph land resource science student Mitch Anderson discovered when he set out to find a solution to one of the causes of agricultural phosphorus pollution in the Great Lakes - milkhouse wash water.

Effluent from washing milk pipeline systems on dairy farms causes an estimated 12 per cent of phosphorus pollution in Ontario. Phosphorus is harmful because it causes excess algae growth, which depletes the oxygen in water and kills fish.

Proposed solutions to deal with the milkhouse wash water problem were very expensive and large scale, and the farmers generally did not agree with them, Anderson says.

So he headed out to talk to farmers to find some workable solutions. Over the past two years, he has visited more than 100 farms. He also surveyed 130 farmers with milkhouse wash water weeping bed systems to determine how well they worked, what was causing problems and what could improve them.

The Ontario Ministry of Agriculture and Food recommended these disposal systems for many years. The systems are actually a good way to treat and dispose of wash water -- when they work. For unknown reasons, however, many of them were plugging up, giving them a bad reputation among farmers.

It turns out the only thing going into the weeping bed systems that plugs them up is milk, he says. If the milk can be stopped from going into the system, they work fine.

According to the results of Anderson's survey, a typical dairy farm produces 1,000 gallons of wash water a week. It doesn't necessarily matter what size the dairy production is - everyone uses a lot of hot water and cleaning chemicals.

Some farmers had come up with a solution to this problem years ago. After milking, they were flushing the pipeline with a couple of gallons of water, then using the water to feed their calves. The system was cheap, simple and easy, and the milky water was a good supplemental feed for calves older than five weeks. Much of Anderson's role was to share this information with farmers who still had the wash water problem.

Armed with this information, Anderson has taken his study a step further. With a \$5,000 grant from Ontario Hydro, he and Oxford County

farmer Ron Forbes have developed a sink that uses water much more efficiently than the traditional milkhouse sink.

The results have been impressive, says Anderson. Farmers using the new sink use the minimum amount of water needed and save up to 40 per cent on their hydro bills. The sinks cost \$450, but estimated savings for some farmers are up to \$1,000 a year.

Anderson measured the savings by installing water and hydro meters and having the farmers record the information themselves.

Source: University of Guelph

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