



MICROBE-LIFT® Technology Removes Two Feet of Surface Scum from Manure Pit



Location: Dairy Farm, Shelby, Ohio

Background: Merlin Newswenger's dairy farm includes a 70' X 70' lagoon with 8' walls that holds 39,200 cubic feet or approximately 300,000 gallons. This farm currently maintains 72 cows, using straw and shavings as bedding. Due to capacity constraints, the lagoon needed to be cleaned out approximately every four months based on cow numbers and rainfall. Surface solids (crust) were up to 24 inches thick that required extra payment to a manure hauler to agitate the pit before pump-out.

Objective: Merlin wanted to determine if utilizing **MICROBE-LIFT®** technology would eliminate the need and associated cost for agitation and provide a more consistent manure fertilizer for crops.

In late December 2004, Merlin removed the liquid portion from the lagoon from under two feet of frozen crust and then added the 6 gallons of **MICROBE-LIFT®/DFP**. One gallon of **MICROBE-LIFT®/DFP** was added per week for the next four weeks and thereafter one gallon was added per month for February, March, and April. Additional liquid was removed from the lagoon at the end of February due to capacity concerns, as the Newswengers did not think they would have enough capacity to hold until the expected clean out in early May.

Results achieved: At clean out in early May the entire 24 inches of surface solids (crust) was gone. A thin scum was left on top and very little agitation was used to incorporate this scum into the liquid. Merlin Newswenger and his manure hauler were equally impressed and commented that the lagoon was consistent from top to bottom. They were both shocked that the crust was gone and the regular agitation was not required. Land application of this treated manure seemed much more even as the manure had a consistent color and lacked the chunks normally seen. Odor had not been a serious problem for this farm due to its remote location. Therefore, no observations were documented regarding the reduction in odor that is typically seen with this treatment.

It was estimated that agitation would have cost an additional \$50 per clean out from the manure hauler. In addition, Merlin's time would have been required to check on agitation equipment set up by the manure hauler. Merlin would normally have to monitor and move this equipment several times over a two-hour period.

Based on his experience, Merlin Newswenger has no doubt regarding the benefit of **MICROBE-LIFT®/DFP** to eliminate surface scum and produce a more consistent, easy to handle manure for fertilization.

Additional benefits include odor control for farms where odor is a concern and the increased value of beneficial microbes in manure used for crop fertilization. Once the microorganisms in **MICROBE-LIFT®** technology have been established in the manure collection system, reduced dosages will make this technology increasingly cost effective.

For more information on **MICROBE-LIFT®** Technology contact

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