- **Address Environmental Issues**
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SLURRYSTORE® TODAY



PLANNING FOR THE FUTURE



Dykhuis Farms Expands with Slurrystores.

What does it take to produce 76.9 million pounds of edible pork per year? How about 20,000 sows and a sound environmental strategy for the future.

Dykhuis Farms, Inc., a farrow-to-finish operation in Holland, Mich., markets 375,000 pigs per year. Founded in 1978 by Bob Dykhuis and his father Jim, the operation has grown from 80 sows to 20,000 sows.

With this added growth came the need for an environmentally sound nutrient management plan. Dykhuis Farms turned to Brandon Hill, a nutrient management consultant. "An environmentally sound nutrient management plan, for now and for the future, is essential for an operation of this size," says Hill.

Address Environmental Issues

In order to promote a more environmentally sound manure application timeframe, the first goal was to eliminate winter spreading. According to Hill, more spring applications would help address nitrogen leaching and ground water concerns – and increase crop uptake.

As part of the plan, Hill also looked into longer storage time and more spreading flexibility to help reduce chances of surface water impairment. Additional strategies included controlling odor (covering if necessary) and containing manure in a structure that met NRCS 313 specifications for greater than six months.

After analyzing the plan and reviewing the options for additional manure storage, the group decided Slurrystore® systems were the right thing to do – now and in the future. "There can be no room for error," says Hill. "Slurrystore systems are a good fit for the large volume of waste water from the sows. Plus, with a Slurrystore, we had no problems with the NPDES Permit requiring six months of reliable storage. We wanted more flexibility and odor control, and to apply manure when we wanted to, not when we had to. Slurrystore systems met all these needs."

In addition, Hill adds that a Slurrystore helps eliminate the risk of future governmental requirements often established for lagoons. "When you construct a lagoon, you have to meet certain regulations. Those regulations continually change. Standards and requirements for lagoons often need to be updated because of groundwater concerns. With a Slurrystore, we feel we're ahead of the game. There's just more peace of mind."

Apply for EQIP Funding

Beginning in 2004, Dykhuis Farms put their nutrient management plan into action and pursued EQIP dollars to help fund the extra manure storage. EQIP funding in the amount of $600,000 was secured for eight Slurrystores; $450,000 for Dykhuis Farms and another $150,000 for a different farm entity. "We were able to get cost share on all eight Slurrystores," says Hill.

How did Slurrystore systems help secure EQIP funding?

1. Sped up the process
- Allowed an engineered drawing to quickly reach the NRCS engineers for approval
- Same design was used for each site
- Met 313 specifications
- Decreased site selection requirements
- Required minimal subsurface soil investigations

2. Provided increased security over lagoon systems
- Less chance of ground water contamination
- Logistic ability to add storage at multiple sites
- Increased the site's ability for additional storage
- More visual structural integrity
- More consistent manure product
- Viewed more environmentally acceptable by regulators

Increased Nutrient Value

With the Slurrystore systems in place, Dykhuis Farms now has timed manure applications in the spring and fall. Slurrystores are pumped one to two times per year. "Manure now can be spread in a cost-effective, timely manner," adds Hill. "The variable cost of application went from $0.01 down to $0.002 per gallon."

Manure is applied via dragline versus land applications previously trucked in from the facilities. Hill has seen reduced soil compaction and inorganic nitrogen use, and increased manure nitrogen crop utilization.

"Dykhuis Farms has significantly decreased the amount of commercial nitrogen purchased because we get more manure out quicker in the spring," says Hill. "When we had to pump year round, we lost nitrogen value due to improper timing of manure applications. We saw more nitrogen losses through the soil via denitrification. Now with increased spring and late fall manure applications, we can take full nitrogen credits for our manure."

In 2005, Dykhuis Farms put up eight Model 96A Slurrystores

- Three 123 ft x 19 ft Slurrystores with 1,400 standard center agitation
- Five 78 ft x 19 ft Slurrystores

History of Dykhuis Farms expansion

Year	Action	# of Sows
1978	Began operation.	80
1980	Expansion led the breeding herd to 200 sows. Pigs produced were sold to local producers as feeders.	200
1985	Sow herd split and expanded to 500 sows.	500
1987	Sow herd increased again.	700
1988	Dykhuis Farms began to retain ownership of finishing pigs.	
1998	Began another expansion. During this phase, off-site nurseries and contract finishers were developed into the system.	2400
1997	Another expansion – converted double-wide finishers into gestation facilities.	5500
2001	Expanded again – separated gilt development flow.	8400
2003-present	Expanded by adding sows and separating grandparent herd and parity segregated sites to accomplish base herd of 20,000 sows.	20,000



EQIP Hotline
1-866-376-EQIP (3747)

ENGINEERED STORAGE PRODUCTS COMPANY

SLURRYSTORE NOW'S the time!

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