



Farm, Site, and Projects

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Farm Overview

E & L Harrison Enterprises, Inc. is a 4000 hog finishing operation owned by Lynn and Patricia Harrison and consists of five hog finishing buildings, at three locations in Dunn and Chippewa counties northwest of Eau Claire, Wisconsin.

The Harrison family has been raising hogs since 1913, when Lynn's grandfather moved to the area. Until the spring of 1998 their operation was farrow-to-finish. "We were farrowing six times a year in outside lots and averaging 16 to 17 piglets per sow. Farrow-to-finish operations in total confinement were averaging 20-plus piglets per sow. We weren't competitive anymore," Lynn says. "We had to either build a big sow set-up or change our operation." Lynn says they had been asked to join a few sow coops, but none had come to fruition, so they started buying feeder pigs, put up total confinement finishing barns and transitioned into a finishing operation.

One of the Harrison's properties is located near and around the Muddy Creek State Wildlife Area and Old Elk Lake, a unique and somewhat rare shallow prairie pothole lake. There is significant development pressure from nearby Eau Claire and Menomonie to subdivide the area. At the same time, the Wisconsin Department of Natural Resources (DNR) wanted to expand the Muddy Creek Wildlife Area and buy land around Old Elk Lake to protect it as a wildlife sanctuary. Lynn and Pat decided they didn't want their farm to end up as a subdivision, so they sold the 77 acres that adjoined the lake to the DNR, as well as selling the development rights on another 350 acres that surrounds the lake.

"It's a philosophical thing – we could have gotten a lot more money if we subdivided, but now half of the lake shore



will never be developed," Lynn says. Selling the development rights allows the Harrisons to continue farming that piece of land, using accepted best management practices which are designed to protect the environment.

Lynn and Pat are active with Wisconsin Pork Association (WPA) and the National Pork Board. Lynn served three terms on the WPA board of directors, the first was from 1993 – 1999, serving as President in 1997. His third was from 2003 – 2007, and during this time period the organization changed from Wisconsin Pork Producers Association to Wisconsin Pork Association. During this realignment of the organization, Lynn remained on the board for a four year period. Lynn was elected President of the new organization in 2005. Lynn's involvement on the National Pork Board has also been extensive, serving from 2002 – 2008. He had the honor of being elected President of the National Pork Board from July 2007 – July 2008. Lynn has been especially active within the National Pork Board Environmental Committee, that oversees checkoff funded research related to environmental issues surrounding the pork industry.

Site Characteristics

The general landscape of the Harrison farmland is gently sloping, with isolated moderate slopes. It varies from cropland, pastureland, and scattered woodland along riparian areas. USDA Soil Survey maps indicate that a majority of the farm has sandy loam soil characteristics.

Along with their hog operation, Harrison's farm about 700 acres of corn and soybeans. They have 320 acres of this cropland under irrigation and another 250 acres of highly

erodible land (HEL), which is planted on the contour with no-till equipment. They have used no-till crop establishment practices since 1993 and typically maintain at least 70% crop residue levels. Swine manure is stored in under-floor liquid pits at each barn and is soil injected to meet crop nutrient needs in the spring and fall. Fields generally receive manure every other year when the soil is not frozen.

Projects Conducted at Harrison Farms

1. Air Quality Impacts

Air quality (emissions and odor) has been a challenge for the swine industry for decades. Through this project, the Harrison's three hog feedlots were evaluated using facility emission data and a regulatory air quality model.

The Wisconsin Ambient Air Quality Standards and U.S. Environmental Protection Agency Reference Concentrations were used to evaluate potential public nuisance and public health impacts.



2. Best Management Practice Challenge

Agricultural best management practices (BMPs) are designed to protect our natural resources. Most BMPs also protect farm profits. Some farmers are reluctant to adopt BMPs because they fear a loss of profit. To address this concern, and increase the adoption of BMPs, a collaboration of private and public organizations created a program called the "BMP Challenge". The BMP challenge

provides an insurance-like product which pays producers if the adopted best management practice (either nutrient or tillage) reduces crop yield and net income. During the early phases of this regional and national initiative, the Harrisons participated in verifying the administrative and implementation protocols that were developed to run the larger program.



3. Sampling Protocol For Under Floor Swine Manure Storage Pit

Proper manure sampling and analysis is important when determining the nutrient content of manure, so that appropriate application rates can be identified. Typically, manure sampling is done as the pit is agitated and emptied. However, by the time analysis results from the lab are received, the manure has already been applied. The

purpose of this study was to determine whether accurate, pre-agitation samples could be obtained. The study was designed to determine whether manure samples which were collected and analyzed prior to agitation accurately represent the concentration of nutrients in manure after it is agitated and applied to cropland.



Conclusion

Unlike most Discovery Farm locations, the Harrison farm did not have in-stream or edge-of-field water monitoring. Topography often dictates when a site will yield viable surface water monitoring data. While this location did not

have an appropriate landscape for water monitoring, the fore mentioned projects provided valuable information for swine producers and the agricultural industry as a whole.



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This fact sheet is part 1 of a 4 part series and can be found along with the rest of the fact sheets on the web at: www.uwdiscoveryfarms.org or by calling the UW-Discovery Farms Office at 715-983-5668.