

HOURIGAN FAMILY DAIRY – Overview & Fact Sheet

The Hourigan family are farmers originally from Ireland. The families' ancestors settled in upstate NY and proceeded to build their own personal vision of the American dream. Starting with one simple barn on one simple farm the Hourigan's, their children and grandchildren have grown over the years and successfully expanded their dairy farm to be what it is today. Their success is built on the Hourigan pride in delivering the highest quality milk for over 55 years. The Hourigan's' formula for success has been and still is them taking pride in the care of their cows and cleanliness of their dairy farm. The Hourigan's' certainly put family in the idea of family farm by having every member contributes in some special way. The family is led by D. Michael Hourigan and his wife Chris. Mike has taught everyone, by example, what hard work means as a 5th generation dairy farmer. For him, his three sons, Andy, David and Richard and their families, there is no other life but this good life of caring for their livestock, farming the fruitful lands of Onondaga County and teaching everyone the value and importance of dairy farming and its critical importance to the community. They work closely with a team of professionals to make sure they maintain the highest quality standards. From a veterinarian coming weekly for herd checkups to a nutritionist to balance feed rations, monitor forage quality and ensure the animals are receiving the highest quality nutrition. All parts of the cows' diet, which consists of alfalfa and corn, are grown and harvested locally by the hourigan family. The farm works with a group of crop consultants that analyze soil samples to monitor crop growth and recommend nutrients necessary for proper plant development. Prescriptions are put in place from manure application to seed population count, seed planting and timing, all the way through plant growth and harvest. This hard-working family gets up before dawn to run their farm and ensure its success for the next generations. Not only do they work hard for the farm, but they work hard on supporting their local communities as well.

Additional Information:

The cows rest on sand beds to maximize comfort and health.

The cows are in one location for their safety, comfort and protection.

PROJECT OVERVIEW

- The farm produces crops for the cows on ~447 acres of land in the Town of Camillus.
- Manure has the nutrient elements (Nitrogen, Phosphorous, Potassium) that crops need to grow.
- The farm will build a 4-million-gallon manure storage (approximately 216 ft x 168 ft x 16 ft), which will contain four months' worth of manure.

- The storage will allow the farm to apply the nutrients immediately before planting of seeds and crop growth
- Traditionally, the farm brings a portable holding tank to the field. Trucks bring manure to the tank and fill it. Tractors then fill tankers that apply the manure to the surface of the soil. This traditional type of manure application takes many days every spring and again every fall.
- The storage will enable the farm to have the ability to do what is called drag hose incorporation of the manure.
 - The sand (from the cow bedding) and manure will be mixed together for ~ 1 day.
 - Then, the drag line incorporation will mix the manure into the soil.
 - This storage will allow the farm to use drag hose to incorporate the manure directly into the soil. It will reduce application time every spring and fall to apply the manure.
- The benefits of this process are:
 - reduced odor as compared to the traditional way of manure spreading
 - increased aesthetics (as the field is freshly plowed and now the manure is part of the soil)
 - reduced time of application.

Once started, the storage project will should take ~ 5 months to construct.

The farm plans to provide environmental landscaping (earthen berm, vegetation, etc.) around the storage to also help with aesthetics.

The project team consists of a Licensed Professional Engineer, Geologist, and Nutrient Management Planner.

SITING A MANURE STORAGE

Farms work with a group of professional engineers, geologist, and Comprehensive Nutrient Management Planner's (CNMPs) to site manure storages. This team assesses environmental resources such as:

- depth to bedrock and groundwater
- proximity to wetlands and streams
- presence or absence of rare or endangered species
- atmospheric conditions
- soil types

- acres of land available for crop growth
- nutrient demands of the crops to be grown
- traffic patterns
- topography
- and many other factors.

REGULATIONS TO COMPLY WITH

The farm met with the Town Codes office on February 6, 2022 to inform them of the project.

DEC / CAFO Regulations and Requirements

Under New York State Law, dairies with over 300 mature cows must have coverage under the Confined Animal Feeding Operation permit (CAFO), regulated by the Department of Environmental Conservation (DEC).

- A comprehensive nutrient management plan (CNMP) must be developed and updated annually for the farm, by a certified planner, to address nutrient management and farmstead sources of pollutants. Plan requirements include:
 - Follow standards outlined in USDA-NRCS Nutrient Management (590) Standard
 - Manure tests taken annually, soil tests every three years
 - Balance the application of nutrients with crop removal of nutrients, and risk indices
 - Field risk assessment of flow paths, proximity to waterways, wells, etc.
 - USDA-NRCS RUSLE2 software to evaluate soil erosion
 - Phosphorus Index for phosphorus
 - Nitrate Leaching Index for nitrogen
 - Fields identified as having a risk have restrictions on nutrients being applied
- Best Management Practices (BMPs) must be certified by a Licensed Professional Engineer and be within the lifespan (Waste Storage – 10 years), must be recertified by an engineer after 10 years
 - CAFO farms are required to have implemented all BMPs identified in their CNMP
- Manure storage, timing, and placement of nutrients:

- The CNMP identifies, on a field-by-field basis, the rate and timing of nutrient applications
- Manure application is restricted during conditions of concrete frost (impermeable, frozen soil), and saturated soils
- Manure storage is required to eliminate spreading during the above-mentioned conditions
- Recordkeeping and annual reporting
 - Records of soil and manure analysis, field risk assessments, and records of applied nutrients must be kept in the CNMP
 - The farm must file an Annual Compliance Report with the DEC, outlining current farm conditions, waste generated, waste applied, waste exported, etc.
 - DEC conducts CAFO inspections to verify the farm is in compliance with the permit, BMPs are operated and maintained properly, and the CNMP is up to date with required recordkeeping

Design Considerations: USDA Standards & Specifications

BMPs must be installed to USDA-NRCS Standards and Specifications

- Waste Storage Facility (313)
- Waste Transfer (634)
- Nutrient Management (590)
- Other standards for BMPs built on farms

Other applicable guidance:

- DEC CAFO program: <https://www.dec.ny.gov/permits/6285.html>
- Revised Winter and Wet Weather Standard Operating Procedures (Cornell): https://www.dec.ny.gov/docs/water_pdf/winterspreadingguidelines.pdf
- USDA-NRCS Standards (EFOTG): <https://efotg.sc.egov.usda.gov/#/state/NY/documents/section=4&folder=-252>

Important Notes

This land is in the Agricultural District and afforded protections under the NYS Agriculture and Markets Law Section 305-a.

This land in question, Hudson Manorcrest Farm, was the first farm/land in Onondaga County (project commenced in 1998) to be protected through the NYS Department of Agriculture and Markets “Farmland Implementation Program” (FIPG), to protect the land from the sale for development purposes.

To date, over 10,000 acres of dedicated farmland in Onondaga County have been protected by conservation easements through the FPIG program, federal grants, local land trusts, and the Onondaga County Agricultural Council.

Onondaga County SWCD, City of Syracuse SLWAP, the Onondaga County 911 Center, and the NYS DEC Region 7 have the only coordinated manure spill response program in the State of New York (and possibly the nation) so there is a team that is quick to respond to protect water quality and the environment, if accidents do happen.

ADDITIONAL RESOURCES

What's the poop on manure lagoons? See how they work, why farmers need them (video)

https://www.syracuse.com/state/2017/06/whats_the_poop_on_manure_lagoons_see_how_they_work_why_farmers_need_them_video.html

FREQUENTLY ASKED QUESTIONS REGARDING MANURE STORAGE IN NEW YORK STATE

https://www.dec.ny.gov/docs/water_pdf/2017manurestoragefaq.pdf

Dairy Farmers - Nature's Recyclers

<https://www.youtube.com/watch?v=EUzgmcmN9J0>

WHY DO DAIRY FARMS BUILD SATELLITE MANURE STORAGE STRUCTURES?

<https://www.ocswcd.org/demographics--history.html>

Onondaga County Agriculture and Farmland Protection Plan – 2022 Update

<https://agriculture.ongov.net/>