

OHIO DEPARTMENT OF AGRICULTURE
LIVESTOCK ENVIRONMENTAL PERMITTING PROGRAM
FACT SHEET

FOR IMMEDIATE RELEASE

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FACT SHEET: Assen Dairy LLC
Draft Permit to Install and Draft Permit to Operate

General overview of the farm

Assen Dairy LLC is located in Madison County, Union and Paint Townships, 8500 Yankeetown-Chenoweth Road, London, Ohio. It is owned and operated by Peter and Johannes Assen. The dairy farm is located in the Lower Scioto Watershed.

Assen Dairy currently has a design capacity for 690 cows, and the farm's existing manure storage system consists of a 748,000-gallon concrete sand settling basin and a 5,972,000-gallon earthen manure storage pond. Upon completion of the expansion, the facility would be permitted to house 1,700 cows, a design capacity of 2,380 animal units.

Overview of the Draft Permit to Install

Assen Dairy's draft Permit to Install is to expand the existing freestall barn, bringing the total design capacity of that barn to 775 cows, and construct another freestall barn to also have a capacity of 775 cows. The existing dry cow barn would remain at a design capacity of 150 cows. The draft Permit to Install also covers the installation of a concrete sand settling basin, with a capacity of 2.4 million gallons, and an earthen manure storage pond, with a storage capacity of 20 million gallons. Vreba-Hoff Dairy Development of Wauseon prepared the permit applications and operating plans, Hull and Associates of Toledo completed the Comprehensive Nutrient Management Plan, and North Point Engineering of North Canton completed the engineering plans.

Overview of the Draft Permit to Operate

Assen Dairy's draft Permit to Operate is for the entire farm. Under state law, the dairy is presently allowed up to 700 cows without requiring a permit from the Ohio Department of Agriculture. The expansion would put the dairy over the permitting threshold. The draft Permit to Operate is to regulate operations with plans for manure management, insect and rodent control, mortality management, and emergency response. It would be valid for a five-year period, at which time the owner would be required to renew the operating permit.

All the manure from the existing freestall barn would continue to be flushed to the existing sand settling basin and existing manure storage pond. The manure from the new freestall barn

would be flushed to the new sand settling basin and then be pumped to the new manure storage pond. The existing manure storage pond would have a pump system installed that would allow manure to be transferred from this smaller manure storage pond to the new larger pond. Approximately 26 million gallons of liquid manure storage is available in the two manure storage ponds. It is estimated that 23.9 million gallons of manure/contaminated runoff would be generated annually, which would allow for approximately 397 days of liquid storage within the two manure storage ponds. The sand laden manure would be stored in the concrete sand settling basins, assuming half of each basin is available for solid storage. The existing settling basin provides 50,000 cubic feet of storage and the proposed settling basin would provide 160,000 cubic feet of storage. The estimated sand laden manure produced annually is 243,000 cubic feet. Therefore, approximately 315 days of solid storage is available, which does not account for the dewatering pad that would be constructed at the upper end of the new settling basin to allow for the sand laden manure to be stored and dewatered back into the system before land application. All runoff from the silage pad, compost pad, and area around the commodity building would be collected in the manure storage system and land applied as it becomes mixed with the liquid manure.

The proposed earthen manure storage pond would have an operating depth of 13 feet. This pond would have a 3-foot recompacted clay liner and would receive manure via pumping from the new concrete settling basin and the existing manure storage pond. A core trench would be installed around the perimeter of the manure storage pond and all encountered subsurface drains would be plugged and/or rerouted a minimum of 50 feet from the manure storage pond. All applicable siting criteria for this structure and the proposed concrete settling basin have been met as shown in the application and on the engineering plans.

All manure generated by the facility would be land applied on cropland of cooperating farmers that grow feed for the dairy. Approximately 2,389 acres of cropland is provided in the Manure Management Plan, with a crop rotation and estimated yield goals as follows: 843 acres of corn with a yield goal of 150 bushels per acre, 180 acres of corn silage with a yield goal of 22 tons per acre, 800 acres of soybeans with a yield goal of 45 bushels per acre, 272 acres of wheat with a yield goal of 50 bushels per acre, and 295 acres of alfalfa with a yield goal of 6 tons per acre.

The total annual production of separated sand laden manure was estimated to be 11,169 tons. The solid manure nutrient analysis provided in this plan was taken from a similar operation and is as follows:

- Total N per ton of manure = 5.9 lbs.
- P 2 O 5 per ton of manure = 5.5 lbs.
- K 2 O per ton of manure = 4.9 lbs.

This solid manure would typically be land applied during the months of April through November by a side-slinger manure spreader. Application rates can be found in the Comprehensive Nutrient Management Plan (CNMP), but rates range from 12 tons per acre to 55 tons per acre.

The total annual production of liquid manure was estimated to be 23.9 million gallons. The liquid manure nutrient analysis provided in this plan was taken from a similar operation and is as follows:

- Total N per 1,000 gallons of manure = 17.7 lbs.
- P 2 O 5 per 1,000 gallons of manure = 8.0 lbs.
- K 2 O per 1,000 gallons of manure = 15.0 lbs.

The liquid manure would typically be applied during the months of July through November, with some applications occurring as early as March or April, depending on the seasonal weather factors. Most of the liquid manure would be spread using a drag-line system and would either be surface applied, lightly incorporated, or injected. Actual application rates are shown in the CNMP section of the draft permit. These application rates are limited by the most restrictive of the following: Nitrogen needs of the crops, Phosphorus soil test, or available water holding capacity of the soil.

The Insect and Rodent Control Plan is required as part of the draft Permit to Operate to minimize the presence and negative effects of insects and rodents. Assen Dairy's Insect and Rodent Control Plan includes weekly monitoring and recording flies using sticky fly ribbons and treating when there are more than 50 flies per ribbon, monitoring fly breeding activity with bi-weekly inspections of possibly habitats, and visually inspecting for rodents on a daily basis. More detail on the Insect and Rodent Control Plan can be found in the draft Permit to Operate.

A Mortality Management Plan is also required for the disposal of dead animals. Approved methods for disposal are burying, burning, rendering, landfilling, or composting. Assen Dairy has chosen composting as their method of disposal. The Assens have been through mortality composting training. Composting would be performed in a predesignated area of the farm and applied to land owned or operated by the dairy.

An Emergency Response Plan is the last plan required in the draft Permit to Operate to ensure accidents or emergencies are handled quickly and efficiently to maintain the safety of the environment, wildlife, and water supplies. Any spills would be halted and contained, the proper authorities would be notified, and the area would be cleaned and restored to the original condition. Prearranged emergency access agreements with neighbors are in place. Prearranged emergency equipment and supplies, such as an irrigation pump, bulldozer, backhoe, and vacuum slurry tank, are also in place. In case of fire, there is a fire emergency response information sheet to assist farm personnel in contacting local fire protection districts.

Finally, an Operating Record is contained in the draft Permit to Operate that includes all forms and information that must be maintained by the facility to show compliance with ODA's rules. These records include inspection of the manure storage structures, manure characterization, land applications, insect and rodent control, distribution and utilization of manure, and mortality management. These records would be inspected by the ODA at least twice a year.