Wallace Center at Winrock International

NORTHEAST DAIRY BUSINESS INNOVATION CENTER

Conservation Performance, LLC

LOW-OVERHEAD GRAZING DAIRY

Graceland Dairies

Dansville, NY

Farm Summary:

Graceland Dairies is an excellent example of larger-herd, low-overhead dairy grazing in the Great Lakes Basin, of which there are very few currently. With a laser focus on farm profitability, this farm seeks efficiencies in feed, labor, and capital which makes it competitive in an era of increasingly large and capital-intensive dairy farms. By keeping their overhead costs low, Graceland is a profitable, flexible, and resilient operation.

Farm owner: Holly Burley Moore

420
Cows

660
Acres

11,921
Lbs. milk per cow

969k
Lbs. milk shipped per worker

4.5
Full-time equivalent workers

Farm History and Current Infrastructure:

Holly Burley Moore owns Graceland Dairies and milks 420 cows on 660 acres of prime agricultural land in Central New York (of which 320 acres are rented). Her soils are primarily silty loam with very little slope. Holly spent 1.5 years working on dairy farms in New Zealand, honing her craft as a dairy grazier. Graceland Dairies was a greenfield development in 2007 on some of the most productive land in the area.

"You have to keep the system simple. Seasonal calving lets me run more cows per person by keeping certain chores to limited parts of the year." – Holly Burley Moore

The farm has a swing-30 milking parlor in which 420 cows can be milked in 3 hours (excluding clean-up) with 3 people in the parlor and doing full cow prep for milk quality. The farmstead consists of a milking parlor with holding area, a building for grain storage and one for grain feeding, a pack barn for winter calving, and an asphalt pad for corn silage. The cows are outwintered on paddocks that need to be reseeded.

To minimize the time and energy of the cows walking to and from the paddocks, Holly put in a long asphalt lane down the center of the farm. Most of the perimeter fencing is single-strand high tensile electric fence; youngstock pastures are double-strand. Internal paddocks are created with a single strand of moveable polywire.

Graceland produces conventional milk that is sold through the Dairy Farmers of America Cooperative. Holly's focus is to minimize total costs per cwt milk, which is why she has kept total investment as low as possible and milks as many cows as her land can support.

Approach for Grazing and Feeding:

The grazing season at Graceland usually runs from April 20 to October 20 but can go longer on stockpiled pasture forage. Holly's primary focus is to maximize her herd's nutrient intake from grazed pasture. She tries to put the cows into a paddock at 2,600 lbs per acre dry matter and size the paddocks so that they eat it down to 1,500 lbs.

Holly shoots to have her cows calve between Feb 16th to April 7th so that she can align the nutrient needs of the spring calving cows (peak in May-June) with the availability of nutrients from pasture. First calf heifers are bred to calve in fall window between Aug 20th to Oct 1st. This gives them the ability to grow a bit more and prevents problems from them calving in the cold weather; she gets 4-5 lactations per cow which is much greater than the industry average of 2.5 lactations. Another advantage of the fall calving window is that mature cows that don't breed back in time for spring calving can be moved to the fall group.

Her herd consists of smaller-framed Fresian cows (New Zealand genetics) which are bred for grazing and the reproductive performance needed for a seasonal calving operation. She also tries to minimize the amount of time that her cows are not eating or resting by getting them from the pasture and through the parlor quickly. Before each milking the cows get 8 minutes in the grain barn where they consume an average of about 13 lbs of grain per cow per day.

When there is plenty of pasture available the cows get no other forage. In the shoulder seasons and winter, Holly feeds baleage, corn silage and a grain mix. She hires a custom operator to make all of her baleage and purchases all of the corn silage she needs. Holly keeps her capital investment as low as possible by not owning cropping equipment.

Productivity and Profitability:

	Graceland Daries	31 NY Farms (<575 cows)
Milk per cow	11,921 lbs	25,307 lbs
Milk shipped per worker	969,328 lbs	1.05 million lbs
Net farm income per cwt	$2.90	$2.87
Return on total farm assets	15.6%	2.9%

The herd averages about 12,300 lbs per cow per year with 565 lbs (4.6%) fat and 430 lbs (3.5%) protein. Total feed costs per cwt milk averaged $8.77 in 2024, which is very low for New York. A Cornell report[1] shows that 128 farms with an average of almost 1,500 cows per farm had total feed costs of $9.15 per cwt milk.

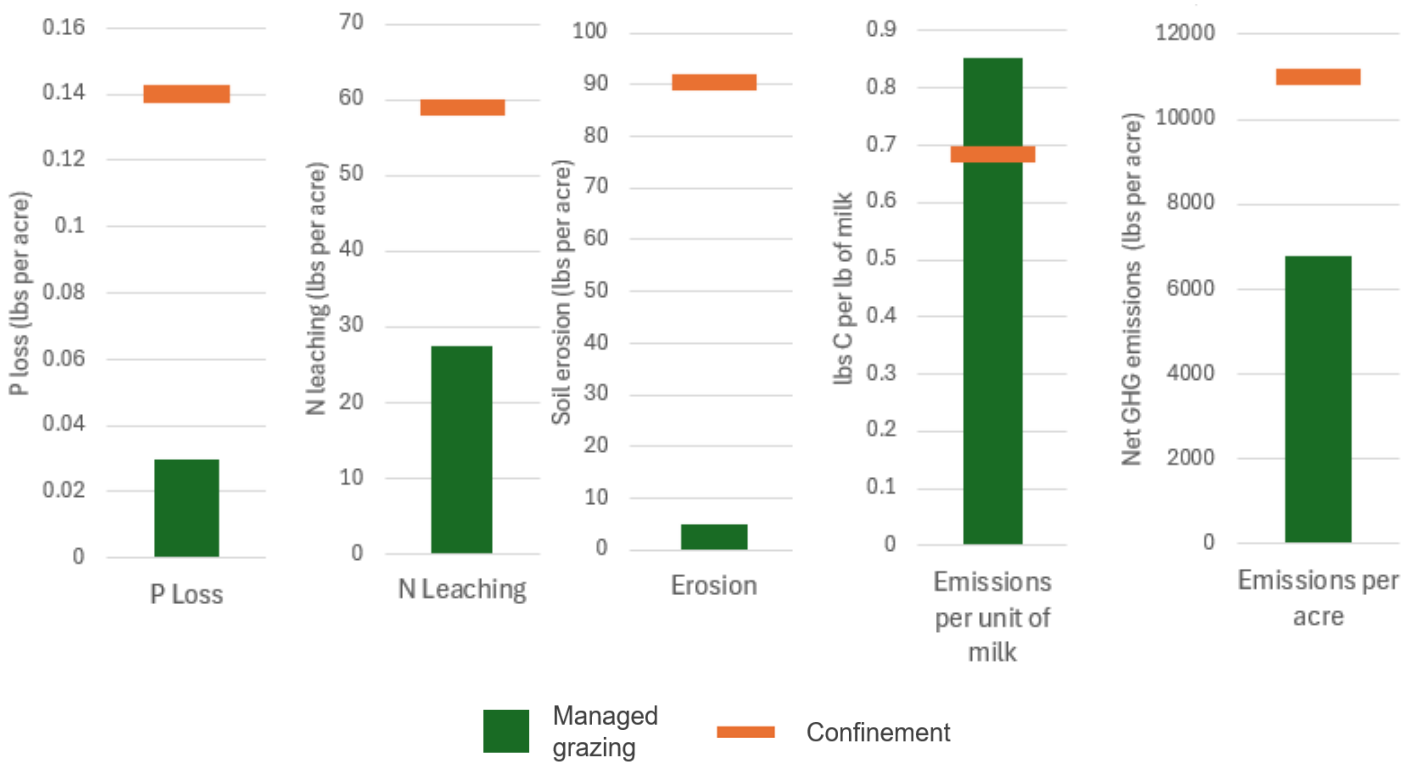
Graceland operates with a total of 4.5 FTE workers which is 93 cows per worker and sells over 1.1 million lbs milk per worker representing very high labor efficiency, especially for a farm with under 500 cows. Each FTE is equivalent to about 53 hours per week. The larger farms represented in the Cornell report averaged 55 cows and about 1.5 million lbs milk per worker in 2024 (averaging over 27,000 lbs per cow).

High milk per cow requires significant capital investment for the buildings and equipment to feed cows in confinement. The farms in the Cornell report averaged over $15,000 per cow in total assets, while Graceland had less than $7,500 which puts its capital requirements per cwt milk produced just slightly higher than for large modern confinement dairy farming ($58 vs $55).

The average net farm income (i.e. profit) for Graceland Dairies across 2022-24 was $2.90/cwt, which is almost the same as the NFI/cwt ($2.87) for the NY farms with less than 575 cows in the Cornell reports. However, Graceland had an average return on investment (15.6%) that was more than five times greater than farms in the Cornell report (2.9%).

[1] https://dyson.cornell.edu/wp-content/uploads/sites/5/2025/07/Final_DFBS_Report_E.B._2025-7-VD.pdf

Environmental Outcomes:



Phosphorus (P) loss from agricultural land is one of the largest sources of pollution to the Great Lakes. The land of Graceland Dairies has almost no slopes making it less vulnerable to soil erosion and P loss, which we estimated using the USDA Integrated Farm System Model. The average P loss is estimated to be 0.03 lbs per acre per year. The model estimates that the same land being managed in a typical dairy crop rotation for the area would lose an average of 0.14 lbs P per acre per year which is still very low, but 78% greater than Holly's operation and would result in 73 lbs more P loss per year. Graceland also reduces an estimated 28 tons of soil erosion, which is 94% less than for a typical dairy crop rotation.

Nitrogen (N) loss from nitrate leaching through the soil profile from Graceland Dairies is estimated to average 27 lbs per acre per year. The typical dairy crop rotation on that land is estimated to have an average of 58 lbs per acre of N loss through nitrate leaching which is 53% greater. Holly's operation reduces N loss from leaching by an estimated total of 20,681 lbs per year.

The carbon (C) footprint of each lb of milk produced is 25% greater with the lower producing and higher forage diet of Graceland's herd compared to a more typical higher producing herd. However, the C footprint per acre of land is 38% less from Graceland than would be from a typical dairy on that same land, resulting in 1,224 fewer metric tons of net greenhouse gas emissions per year.

"Grazing is not easy; you need the right resources. You have to be willing to try different approaches and sometimes fail. You can't be scared and you can't give up." – Holly Burley Moore

What's Next?

Holly wants Graceland Dairies to thrive, not just survive. She feels that keeping inputs low and outputs moderate is the way to keep profitability high. In the near future, Holly may explore producing A2 certified milk. Her two young children can help on the farm and she wants to keep it fun for them so that they may want to take over the farm someday.

Want to learn more about how adding or expanding grazing to your dairy operation can increase your profitability?

Head to bit.ly/dairygrazing to learn more.

These resources are created with investment from the Great Lakes Protection Fund