



**Dairy Farm Home-Grown Grain Production:
Characteristics and Trends in Financial
Performance
New York State Dairy Farms**

**Dairy Farm Business Summary
New York State
Same 124 Farms
2021 – 2024**

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The Dairy Farm Business Summary and Analysis program is funded in part by:



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Dairy Farm Home-Grown Grain Production: Characteristics and Trends in Financial Performance

New York State Dairy Farms

Lainey Koval¹ and Jason Karszes²

Feed is the highest input cost on a dairy farm, with the combination of purchased grain and concentrates plus costs of home-grown forages and grain estimated to make up 40 to 60 percent of total operating expenses. Conscious of this, dairy farmers and their advisors continuously seek strategies to manage this expense.

With purchased grains and concentrates making up a large portion of feed cost, some dairies grow their own grain to cover a portion of their herd's needs. Oftentimes the proportion of home-grown grain is dependent on the crop season. For example, some dairies may choose to harvest a portion of their acres as high moisture shell corn in a year where silage yields are strong and they are satisfied with inventories. These acres harvested for grain can be referred to as "flex acres". On the other hand, there are some dairies that have more of an emphasis on grain production as a part of their business model. These farms have acres that are above their herd's needs for forage, leaving additional acres available for growing grain to be fed to the herd or sold. These farms may also have additional equipment, storage, and processing equipment for grain production.

According to Cornell Dairy Farm Business Summary (DFBS) data, grain production on NY dairy farms has increased over the last few years³. Milk production base programs and the inability to grow the herd, land availability combined with no plans to grow the herd, interest in grain production, farm goals, and other reasons may have driven some dairy operators to grow grain as a part of their business.

A descriptive study was done to look closer at characteristics and trends in financial performance of farms with different levels of grain production over time. Using data from the DFBS, four groups were created, sorted by tillable non-forage acres per cow to capture all grain acres. Non-forage acres are those acres controlled by the farm not being utilized for forage production and are primarily comprised of corn grain, soybeans, or other small grains. The 2022 DFBS year was used to create groups with 31 farms in each group, 124 total. The 124 NY farms in the data set are conventional dairy farms who participated in the DFBS all years 2021 through 2024. Graphs in the following pages show performance over the period, with the same farms in each group each year. Detailed tables showing expanded data are found in pages 12-19.

Chart 1 shows tillable acres per cow⁴ for the four different groups during the year 2022.

- The lowest quartile averaged around 1.5 tillable acres per cow, all of which was forage acres.
- Quartile 2 also averaged around 1.5 acres per cow; majority being used for forage production with a very small amount of non-forage (grain) acres.
- Quartile 3 averaged just under 2.0 acres per cow, with some additional non-forage acres beyond forage needs.
- Quartile 4, the highest quartile, averaged over 2.5 acres per cow, with almost 1.0 acre of that being non-forage acres.

Expanded characteristics and acreage breakdowns by year may be found in Tables 1 and 2 on pages 12-15. Tillable acres per cow does not consider whether heifers are raised on the farm or are custom grown, so land base and forage needed to feed the entire herd may differ from farm to farm.

¹ PRO-DAIRY Program, Department of Animal Science, Cornell University, Ithaca, NY

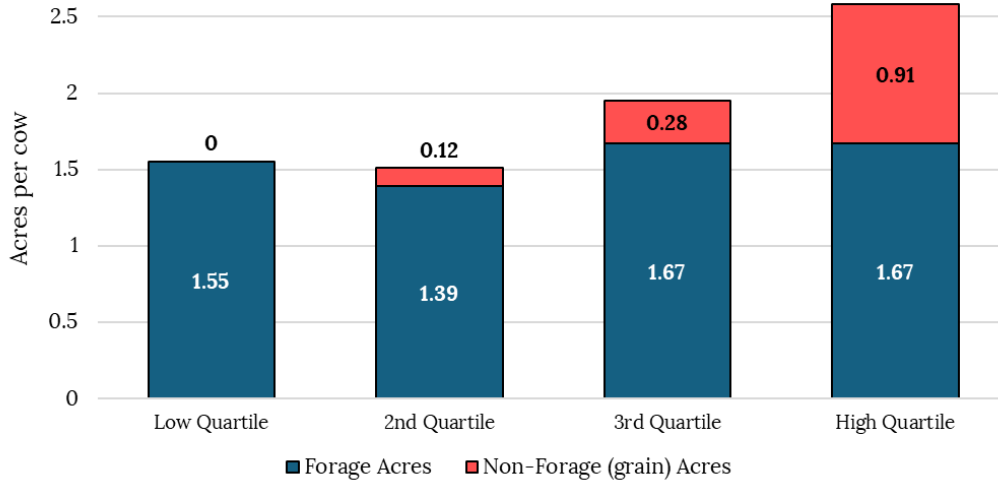
² The authors would like to thank Joe Lawrence, Dairy Forage Systems Specialist, PRO-DAIRY, Animal Science, and Kirsten Workman, Nutrient Management and Environmental Sustainability Specialist, PRO-DAIRY, Animal Science, for their comments, edits and improvements to this project.

³ E.B. 2024-07, "Six Year Trend Analysis 2023, New York State Dairy Farms", Karszes, J., Dairy Farm Business Summary and Analysis Program, College of Agriculture and Life Sciences, Cornell University, Ithaca, NY, October 2024.

⁴ Total tillable acres owned and rented for the crop season divided by the average number of milking and dry cows for the year.

Chart 1.

**Average tillable acres per cow breakdown by non-forage acres group
DFBS, 2022, 124 total NY farms**



The following chart shows the average number of milking and dry cows for the four different non-forage acre groups, following the same farms over the period of 2021 to 2024. The second quartile tended to be the largest farms, with average herd size increasing each year. The lowest and third quartiles averaged similar herd sizes compared to one another in each year. Although the highest quartile of farms averaged the highest tillable acres per cow, they averaged the lowest herd size. With this group having more acres than needed to meet their forage needs to feed the herd, extra acreage on these farms was used for grain production, as seen in Chart 1. The average herd size of all groups increased slightly each year.

Chart 2.

**Average number of cows by non-forage acres group
DFBS, 124 total NY farms, same farms in each group per year**

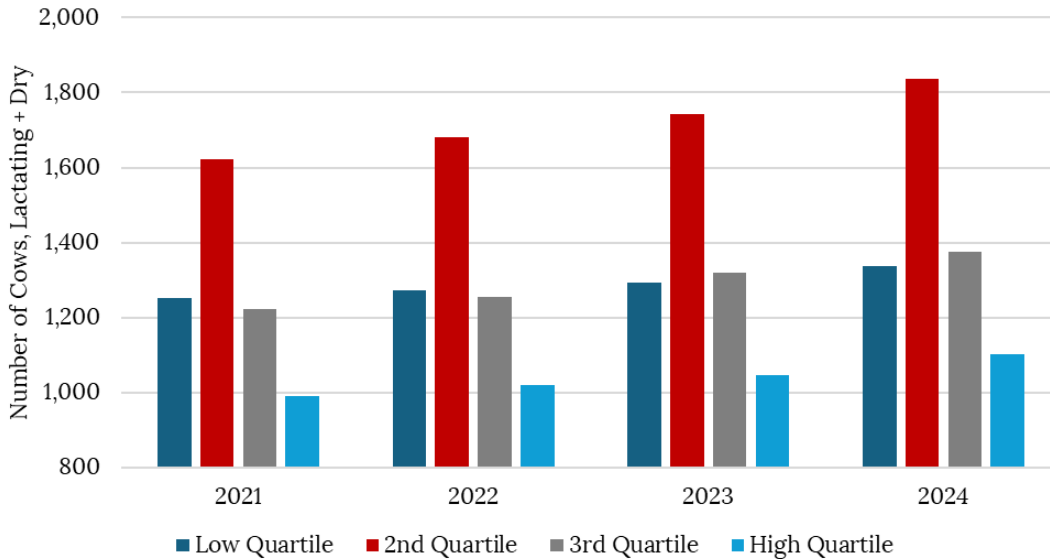


Chart 3.

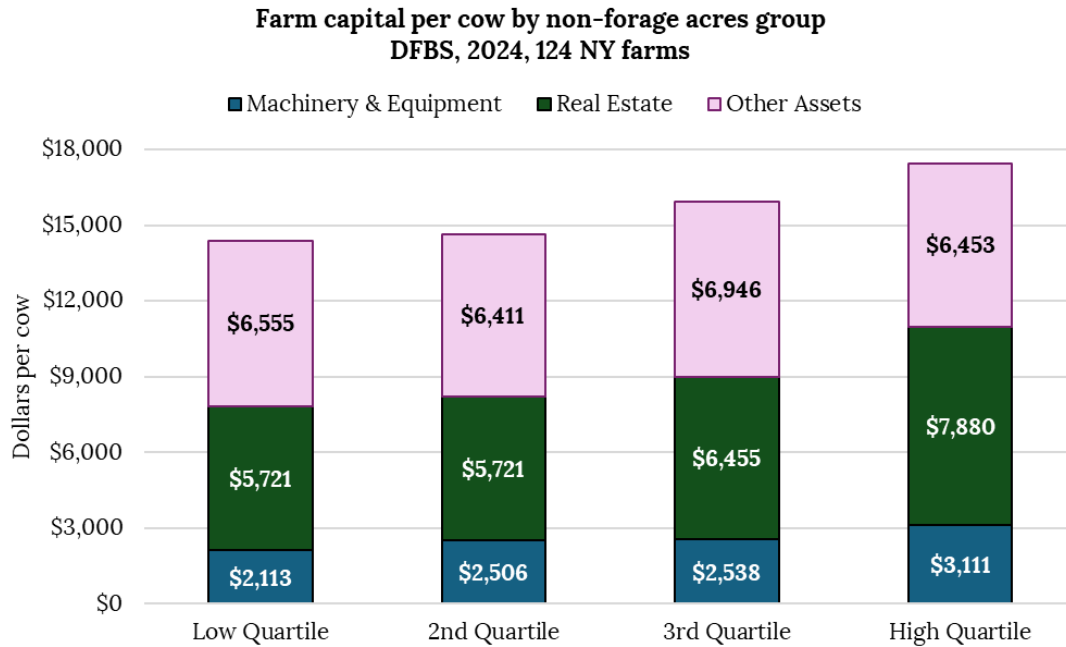
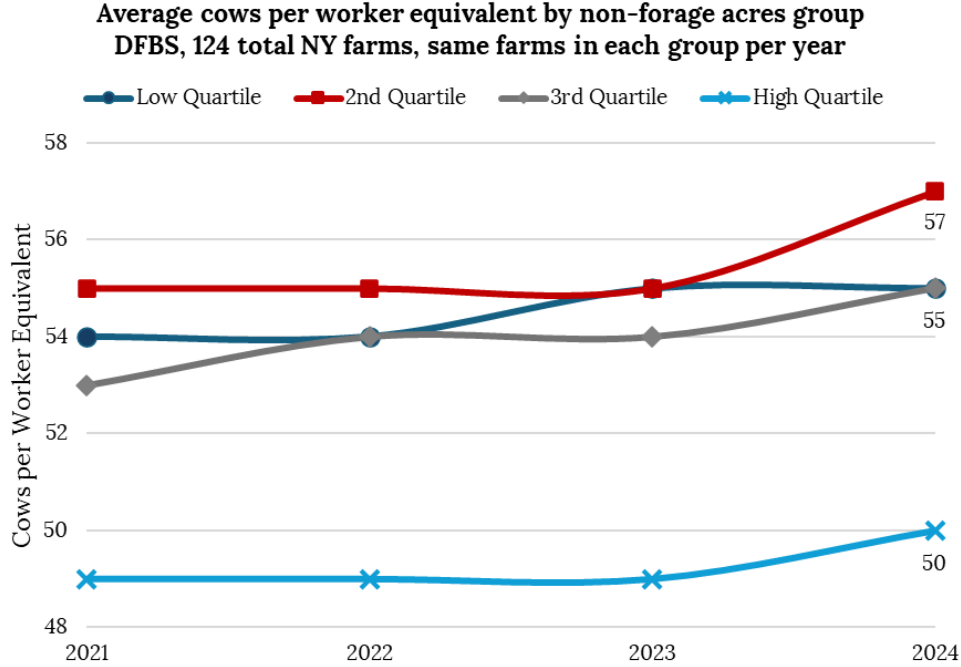


Chart 3 shows farm capital per cow by non-forage acres group at the end of 2024. Shown in blue is the portion of the total that is machinery and equipment investment. Real estate, which includes land and building investment is shown in green and the remaining other assets are shown in pink⁵. Moving from the group with the lowest grain production acres per cow to the highest group, total farm capital, machinery and equipment, and real estate per cow tended to increase. As the groups with higher grain production had more tillable acres per cow and more crop types, additional equipment or infrastructure may be needed for cropping activities or grain handling and storage. With the highest quartile group having less cows on average, the investment is also spread over less cows.

Likewise, there may also be farms in the second quartile with high investment in machinery and equipment or overall investment, however it is spread over more cows as this group has the highest average herd size. This trend is consistent over the period. Expanded data may be found in tables 1 and 2 on pages 12-15.

⁵ E.B. 2023-07, “Glossary of Terms Associated with the DFBS”, Karszes, J., Augello, L., Dairy Farm Business Summary and Analysis Program, College of Agriculture and Life Sciences, Cornell University, Ithaca, NY, July 2023.

Chart 4.



Cows per worker equivalent is a measure of labor efficiency on a dairy farm. Average cows per worker by year and grain acres group is seen in Chart 4. The second quartile group, which also had the largest herd size, averaged the highest cows per worker in most years. In 2024 this group reached an average of 57 cows per worker. Quartile three and the lowest grain production quartile followed, averaging between 53 and 56 cows per worker each year.

The highest grain production group stands out at the lower end of the range, averaging at or below 50 cows per worker each year. Increased acreage and cropping activities on the farm may lead to additional employees or time spent on that side of the business. For this group, having on average lower herd sizes is also a factor in having lower cows per worker as the farm might not be capturing efficiencies of scale with the dairy operation. There is a range of performance in each group however, and there are some dairies in the high grain production group achieving strong labor efficiency, with the two highest quintiles for cows per worker averaging over 50. Quintile ranges by group for a number of factors including cows per worker may be found in Farm Business Charts 3-6 on pages 16-19⁶.

⁶ Farm Business Charts are used to show the range in performance within a group. The four quartile groups of non-forage acres are shown, with each further broken down into quintile averages to show the range for each metric. Each column is sorted independently, and the same farms are in each group over the period 2021 - 2024.

Chart 5.

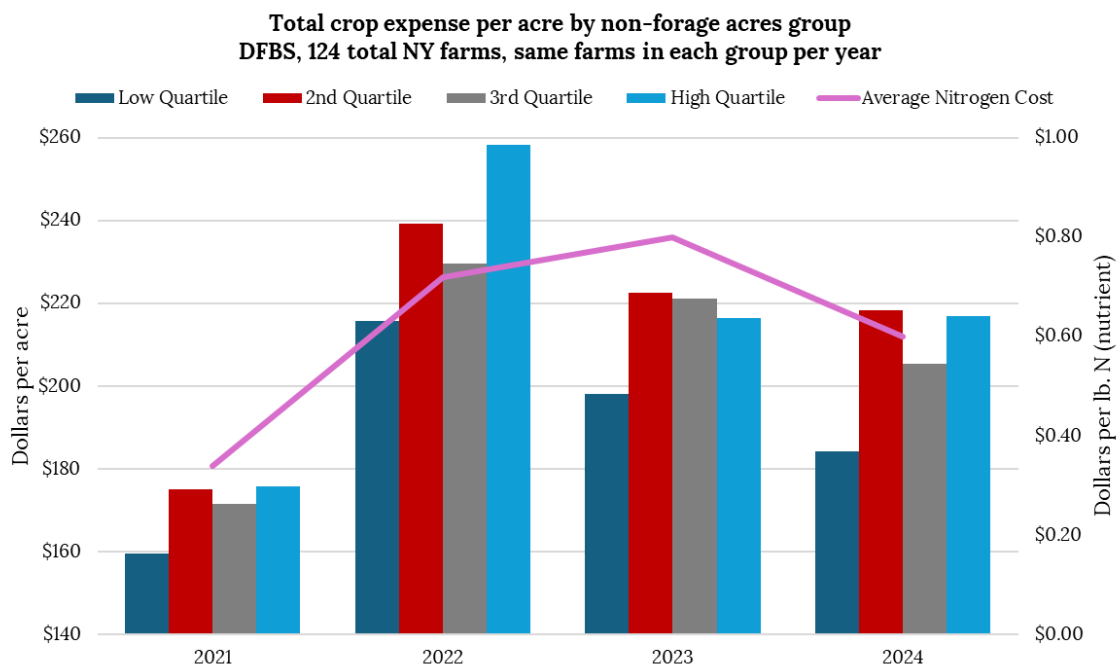


Chart 5 shows the total crop expense per acre by grain acres group over the period. Crop expense includes input costs of seed, fertilizer and lime, spray and chemicals, and other crop expenses. With this expense influenced by input costs per unit, an average cost per pound of nitrogen is plotted in pink⁷.

The low quartile of farms, with low to no grain production and less tillable acres averaged the lowest crop expense per acre in each year. The highest grain acre group averaged the highest crop expense per acre in 2021 and 2022, second lowest in 2023, and second highest in 2024. Along with seed, spray and fertilizer expense, costs per acre may be influenced by amount of manure available for use as fertilizer. Farms with higher acres per cow for example may have fertilizer needs beyond what they have for manure available to apply. This could potentially lead to higher fertilizer costs or the need to import manure.

Farm Business Charts 3-6 show the quintile ranges for crop expense per acre as there is a range in cost in each group. It should also be noted that grain grown in a particular year may not be fed to the herd until the following year. For example, corn grain grown and harvested in 2023 may be fed in 2024, impacting feed costs in 2024 rather than in the year that it is grown and the inputs were purchased.

⁷ “Estimated Cost of Crop Production in Iowa”, Iowa State Extension Crop Budgets, Plastina, A., Iowa State Extension, 2021 – 2024.

Chart 6.

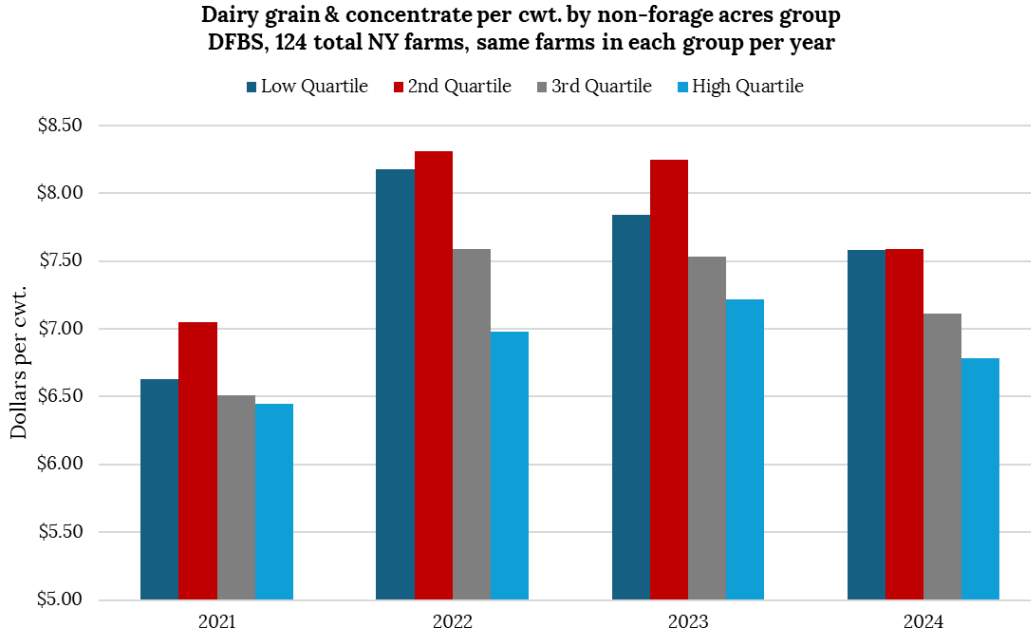


Chart 6 shows purchased dairy grain and concentrate expense per hundredweight (cwt.) by non-forage acres group by year. In 2024, the first two quartiles averaged around the same price per cwt. for purchased grain at just under \$7.60 per cwt. The third quartile averaged \$7.11 per cwt. And the high quartile, which had the most acres in grain production, averaged the lowest cost at \$6.78 per cwt. This trend differs depending on the year and is influenced partially by grain markets, however the high group did achieve the lowest grain cost in all years. This group also achieves the highest crop revenue per cwt., seen in Chart 7. It should be noted that the DFBS considers changes in crop inventory as crop revenue along with cash sales and change in accrual receivables: Chart 7 shows the split between these items. While all groups had crop revenue in the form of changes in inventory (pink) in 2024, cash sales were an additional revenue stream for the two higher quartile groups of farms (dark blue). 2024 was generally a good crop year for NY state dairy farms.

Chart 7.

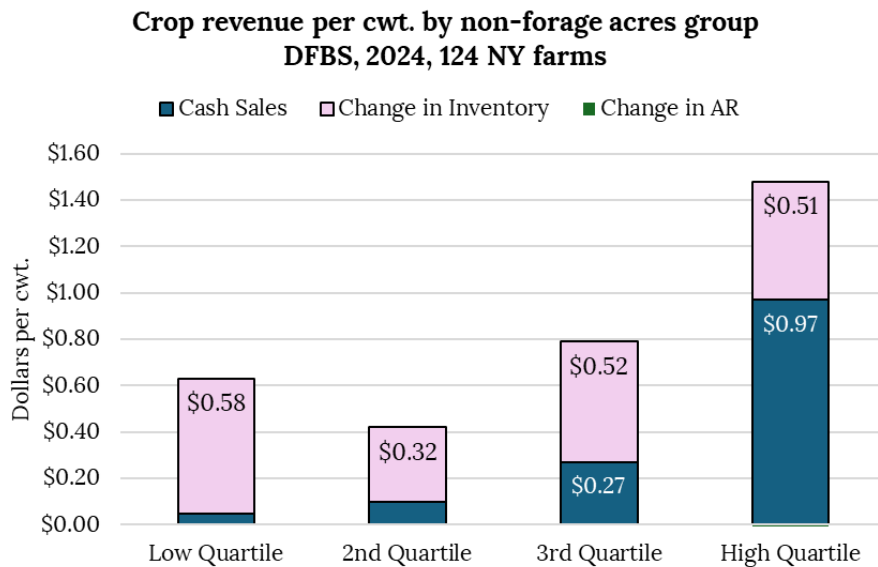


Chart 8.

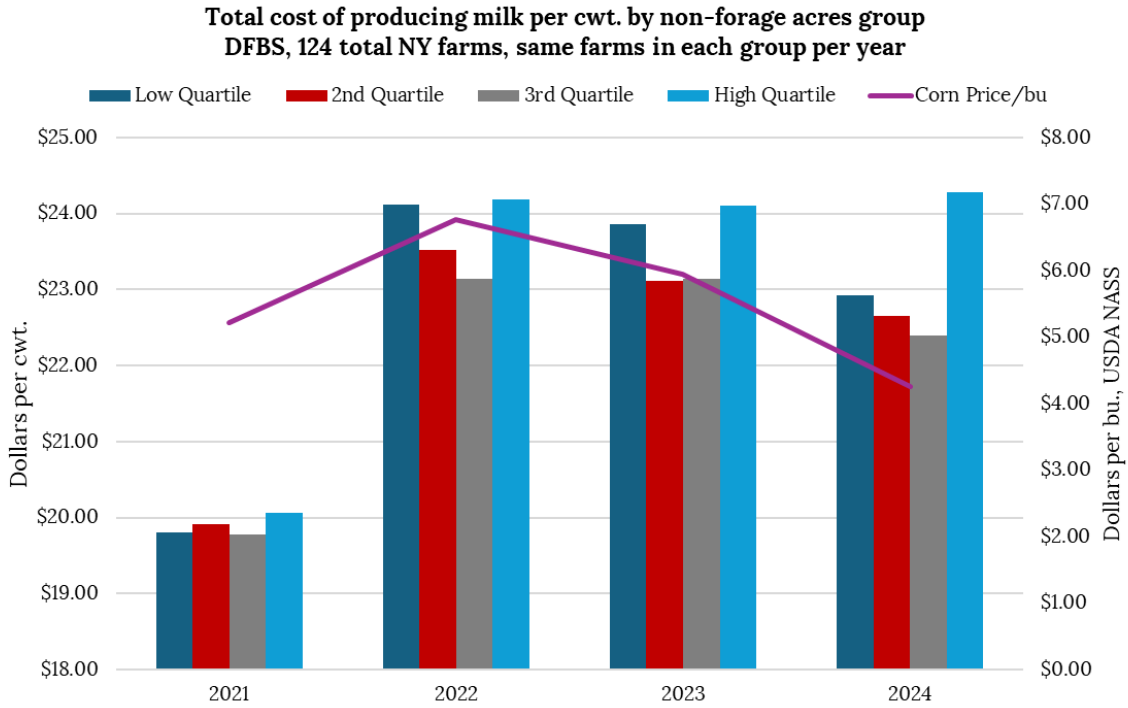


Chart 9.

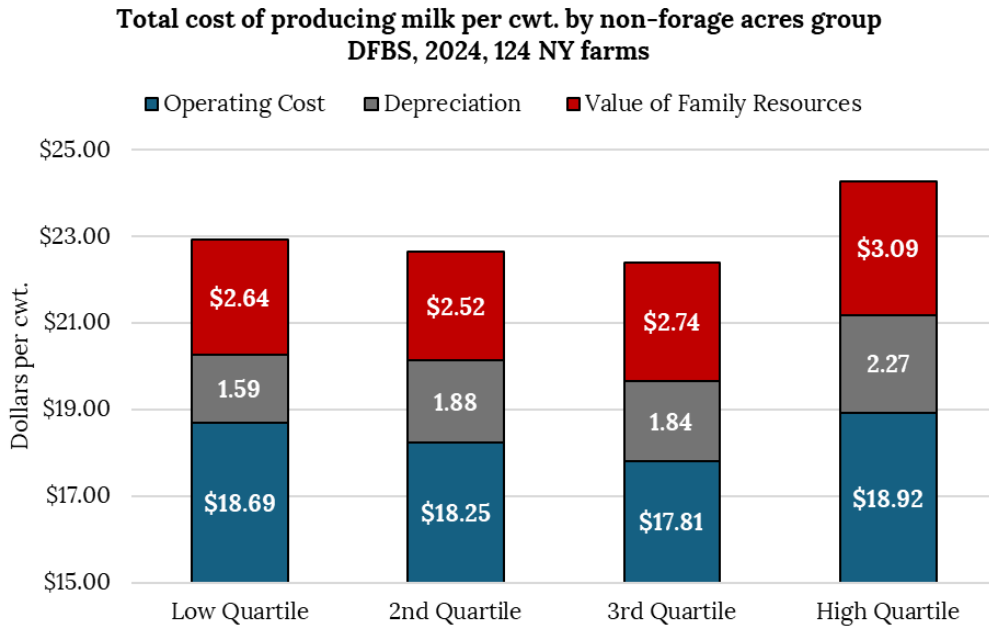


Chart 8 shows the total cost of producing milk per cwt. for the four different non-forage acre groups over the period. Total cost of producing milk includes operating costs plus depreciation and a charge for owner labor and management. The operating cost part of this equation subtracts non-milk revenue to “pay” expenses. What is left is the cost which must be covered by the sale of milk only (Chart 9, found in blue). Although costs vary by year, the low quartile and high quartile groups had the highest total cost to produce milk in all years except 2021.

Also plotted on Chart 8 is the average annual cost per bushel of corn grain, which demonstrates how the cost of corn grain changed over this time frame. A question that is often asked concerns what advantage farms growing their own grain might have in high-grain price years. Recognizing that the grain fed in the current year was largely produced in the preceding year, input costs per acre are reported in Chart 5 and can be used to look at how crop input costs changed along with the grain costs shown in Chart 9. Input costs were the lowest in 2021 for all groups in Chart 5 and that grain was primarily fed in 2022, which was the highest corn price year. However, crop input costs increased dramatically from 2021 to 2022, increasing the cost to grow additional acres in 2022 and impacting cost of production. In 2022, the two groups with the highest cost of producing milk were those with the highest and lowest non-forage acres. The high quartile was only 7 cents higher per cwt. than the next group (Chart 8), which for the highest non-forage acres crop was the closest to the next group for cost of production for any of the four years. However, both of these groups were over \$24.00 per cwt. in total cost while the other two groups were below \$23.50.

In 2024, the group of farms with the most grain acres per cow averaged the highest total cost of producing milk at \$24.28 per cwt., over a dollar difference from the next highest group which averaged \$22.92 (Chart 9). In 2024 the high group also averaged the highest operating cost per cwt. Performance varied by year however, and in 2021 the high grain production group achieved the lowest operating cost per cwt. (Table 1). Total cost to produce milk is also impacted by depreciation expense and for farms with higher investments, depreciation expense may be higher. Although the high quartile group achieved the lowest purchased grain cost in all years, costs associated with growing their own grain that is captured in other expense categories are impacting operating cost (Tables 1 & 2). There is however a range in performance, and as seen in the attached business charts there are farms in the high-quartile grain acres group that do have costs similar to farms in other groups (Tables 4-6).

The lowest quartile group had the second highest cost of production in 2024. With these farms averaging the lowest acres per cow, potentially purchasing forages to feed their herd along with grain may impact cost of production (Table 2). Quartiles 2 and 3 averaged lower total cost of producing milk in most years. These groups were those that had a small amount of home-grown grain production along with producing forages to feed the herd.

Chart 10.

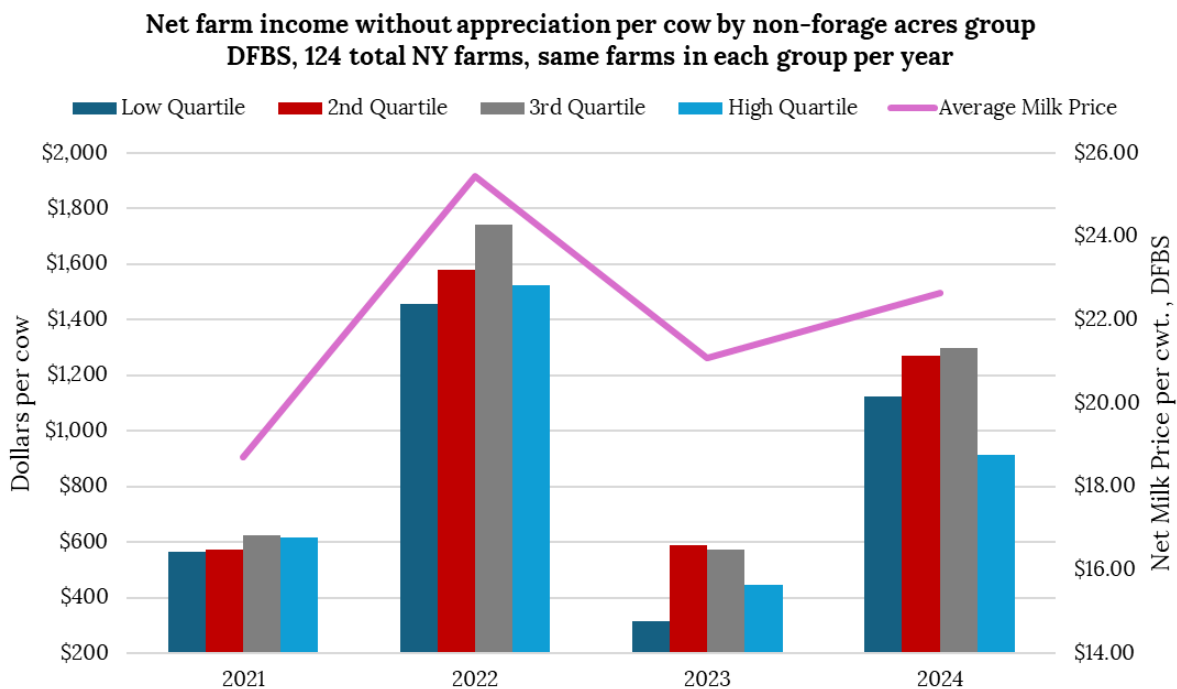


Chart 10 above shows net farm income without appreciation per cow by non-forage acres group. With this measure influenced by milk price, the average net milk price for the 124 farms is plotted in pink. Performance varies from year to year. In all years, however, the two middle quartiles achieved the highest net farm income

on a per cow basis. The outside groups shown in blue, being the lowest and highest grain production groups, averaged lower net farm income per cow. In 2024, the highest grain group averaged \$913 per cow, which was more than \$200 lower than the next group which was the low quartile group at \$1,124 per cow. Both the second and third quartile groups averaged over \$1,200 per cow.

In this graph net farm income is shown without appreciation, to avoid the impact on earnings from increases in the value of assets. Tables 1 and 2 show additional data including net farm income with appreciation, however the trend does not change from the above graph. Net farm income in a particular year is impacted by a variety of factors.

Chart 11.

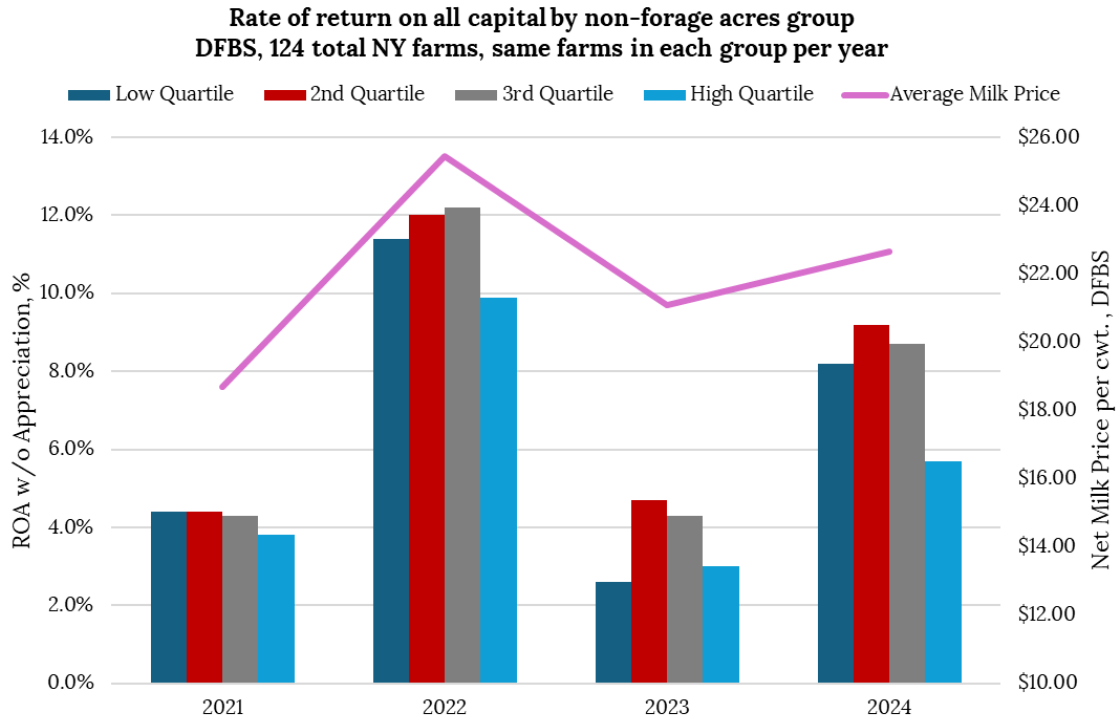
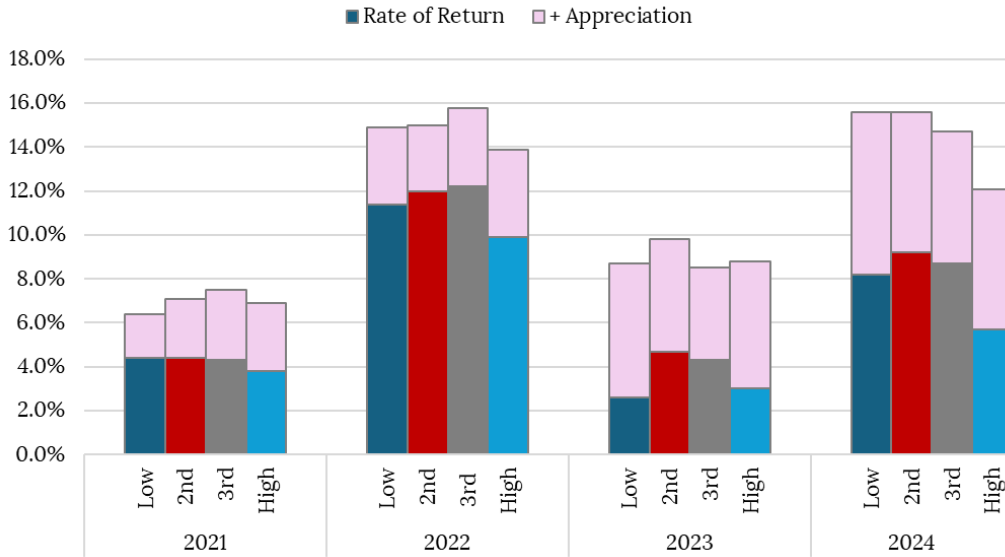


Chart 12.

**Rate of return on all capital by non-forage acres group
DFBS, 124 total NY farms, same farms in each group per year**



The graphs above show the rate of return on all capital (ROA) by non-forage acres group. Chart 11 is shown without appreciation of assets, while Chart 12 includes appreciation of assets as income. Net milk price is also plotted on Chart 11. Rate of return is calculated by dividing returns to capital by average total investment (assets) in the farm and is a measure of profitability. Looking at Chart 11, the two middle groups achieved the highest rate of return without appreciation in almost all years while the two outside groups had lower rates of return on average over the period. With this calculation considering asset value of the farm, the highest quartile group's rate of return is partially impacted by higher investment levels, dividing income by more assets. Chart 12 shows the impact and trend in ROA when adding in appreciation of assets (portion shown in pink). The trend by group is similar to that seen in Chart 11, however it may show the impact that having higher investment (more assets) has on ROA. For example, in 2023, the ROA of the high quartile group is higher than the 3rd quartile group when including appreciation of assets, different than the trend seen in the graph prior.

As was seen in Chart 3, the high quartile group, farms with more grain acreage per cow tended to have higher investment per cow. The highest quartile grain production group had the highest capital per cow in all years, though they also had on average the highest debt per cow and lowest percent equity compared to the other groups (Tables 1 & 2). Like any other variable however, circumstances and performance vary farm to farm and asset and debt levels represent values at the end of the calendar year.

Conclusion

Grain production on New York dairy farms has been a common practice for many years. Level of homegrown grain production varies from farm to farm and is often highly dictated by the success of the crop year. Dairies with sufficient acreage for forage production may utilize some of their acreage as “flex acres”, harvesting some acres as grain. There are also some farms that have large land bases which cover forage needs and allow for grain to be grown to feed the herd and even sell crops each year, with some of these farms having made investments in machinery and infrastructure to support these activities. On the other hand, there are some dairies that may not have enough acreage to meet their forage needs, requiring the purchase of forages and exporting of manure, potentially impacting business performance.

The feasibility and success of home-grown grain production as a part of the dairy farm business involves many factors. Level of grain production on a particular farm may depend on land availability, farm goals and lifestyle factors, and ability to expand the herd, to name a few. In this study, farms on each end of the spectrum, either with not enough acreage for forage production or more acres than what is needed for forage production and emphasis on the grain side of the operation tended to have lower financial performance than farms with sufficient forage acres along with some “flex acres”. Having a sufficient land base along with some “flex acres”

may be viewed as a risk management strategy on some dairies. With success of the crop year being variable in the Northeast, one risk management strategy is to have some additional acres serve as a buffer to meet forage needs over time.

Farms with higher levels of grain production had on average larger land bases and more assets per cow, lower purchased grain cost and higher crop revenue. These farms also tended to have higher cost of production, lower net farm income per cow, and lower return on assets when compared to farms with less grain production. There is a range in performance however, and how the practice fits into a dairy business is dependent on the many factors mentioned previously.

For further information about the Dairy Farm Business Summary and Analysis program, and other farm management resources please visit <https://cals.cornell.edu/pro-dairy/our-expertise/business>.

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DAIRY FARM BUSINESS SUMMARY SELECTED FACTORS

DAIRY GRAIN PRODUCTION FOCUS

Table 1

Sorted by 2022 Non-Forage Acres per Cow, Same 124 New York Farms, DFBS, 2021 and 2022¹

| SELECTED FACTORS | | 2021 | | | | 2022 | | | |
|---|----|-------------------------------|----------------------------|----------------------------|----------------------------|-------------------------------|----------------------------|----------------------------|----------------------------|
| | | Average of Lowest Quartile | Average of 2nd Quartile | Average of 3rd Quartile | Average of Top Quartile | Average of Lowest Quartile | Average of 2nd Quartile | Average of 3rd Quartile | Average of Top Quartile |
| <i>Business Characteristics</i> | | | | | | | | | |
| Average number of cows | 1 | 1,251 | 1,622 | 1,222 | 990 | 1,272 | 1,680 | 1,256 | 1,020 |
| Tillable acres per cow | 2 | 1.50 | 1.52 | 1.95 | 2.52 | 1.49 | 1.48 | 1.93 | 2.52 |
| Non-forage acres per cow | 3 | 0.03 | 0.12 | 0.31 | 0.85 | 0.00 | 0.12 | 0.28 | 0.91 |
| Forage acres per cow | 4 | 1.45 | 1.4 | 1.66 | 1.76 | 1.55 | 1.39 | 1.67 | 1.67 |
| Corn grain acres per cow | 5 | 0.03 | 0.09 | 0.23 | 0.56 | 0.01 | 0.09 | 0.21 | 0.59 |
| Percent tillable land owned | 6 | 54% | 51% | 52% | 50% | 55% | 53% | 51% | 51% |
| <i>Rates of Production</i> | | | | | | | | | |
| Milk sold per cow, pounds | 7 | 27,082 | 27,597 | 26,749 | 26,653 | 26,987 | 27,879 | 26,798 | 26,662 |
| Hay DM per acre, tons | 8 | 3.82 | 3.88 | 3.45 | 3.58 | 3.25 | 3.60 | 3.08 | 3.58 |
| Corn silage per acre, tons | 9 | 18.4 | 18.4 | 18.7 | 21.1 | 18.1 | 19.2 | 17.2 | 19.0 |
| Corn grain per acre, bushels | 10 | 169 | 162 | 150 | 163 | 170 | 174 | 144 | 148 |
| Harvested DM per cow, tons | 11 | 7.46 | 7.19 | 8.16 | 9.23 | 7.42 | 7.18 | 7.51 | 8.20 |
| <i>Labor Efficiency</i> | | | | | | | | | |
| Cows per worker | 12 | 54 | 55 | 53 | 49 | 54 | 55 | 54 | 49 |
| Milk sold per worker, pounds | 13 | 1,466,114 | 1,505,117 | 1,411,102 | 1,307,920 | 1,464,252 | 1,530,549 | 1,442,324 | 1,294,887 |
| <i>Revenue & Profitability</i> | | | | | | | | | |
| Net milk price | 14 | \$18.37 | \$18.54 | \$18.51 | \$18.49 | \$25.51 | \$25.19 | \$25.54 | \$25.47 |
| Crop revenue per cwt. | 15 | \$0.63 | \$0.71 | \$0.98 | \$2.05 | \$0.27 | \$0.40 | \$0.75 | \$1.64 |
| Misc receipts per cwt. | 16 | \$0.62 | \$0.64 | \$0.66 | \$0.77 | \$0.59 | \$0.58 | \$0.67 | \$0.59 |
| Net farm income w/o apprec. per cow | 17 | \$566 | \$574 | \$625 | \$616 | \$1,457 | \$1,580 | \$1,740 | \$1,523 |
| Rate of return on all cap w/apprec. | 19 | 6.4% | 7.1% | 7.5% | 6.9% | 14.9% | 15.0% | 15.8% | 13.9% |
| Rate of return on all cap w/o apprec. | 20 | 4.4% | 4.4% | 4.3% | 3.8% | 11.4% | 12.0% | 12.2% | 9.9% |
| <i>Cost Control</i> | | | | | | | | | |
| Dairy grain & concentrate per cwt. | 21 | \$6.63 | \$7.05 | \$6.51 | \$6.45 | \$8.18 | \$8.31 | \$7.59 | \$6.98 |
| Dairy roughage per cwt. | 22 | \$0.65 | \$0.46 | \$0.27 | \$0.18 | \$0.67 | \$0.44 | \$0.30 | \$0.19 |
| Labor and mach costs per cow | 23 | \$1,808 | \$1,744 | \$1,904 | \$2,024 | \$2,075 | \$2,049 | \$2,112 | \$2,360 |
| Hired labor costs per cwt. | 24 | \$2.96 | \$2.99 | \$3.24 | \$3.30 | \$3.17 | \$3.16 | \$3.34 | \$3.55 |
| Hired labor costs per worker equiv. | 25 | \$48,617 | \$50,399 | \$52,352 | \$50,747 | \$51,826 | \$53,913 | \$55,222 | \$53,471 |
| Oper. cost of prod. milk per cwt. | 26 | \$16.40 | \$16.35 | \$15.93 | \$15.64 | \$20.41 | \$19.68 | \$18.98 | \$19.46 |
| Total cost of prod. milk per cwt. | 27 | \$19.81 | \$19.92 | \$19.78 | \$20.07 | \$24.12 | \$23.52 | \$23.14 | \$24.19 |

DAIRY FARM BUSINESS SUMMARY SELECTED FACTORS

DAIRY GRAIN PRODUCTION FOCUS

Table 1 Continued

Sorted by 2022 Non-Forage Acres per Cow, Same 124 New York Farms, DFBS, 2021 and 2022¹

| SELECTED FACTORS | | 2021 | | | | 2022 | | | |
|-------------------------------------|----|-------------------------------|----------------------------|----------------------------|----------------------------|-------------------------------|----------------------------|----------------------------|----------------------------|
| | | Average of Lowest Quartile | Average of 2nd Quartile | Average of 3rd Quartile | Average of Top Quartile | Average of Lowest Quartile | Average of 2nd Quartile | Average of 3rd Quartile | Average of Top Quartile |
| <i>Crop Enterprise</i> | | | | | | | | | |
| Mach repair & vehicle exp. per cwt. | 28 | \$1.04 | \$0.93 | \$1.15 | \$1.14 | \$1.18 | \$1.11 | \$1.32 | \$1.39 |
| Mach hire, rent, & lease per cwt. | 29 | \$0.90 | \$0.50 | \$0.57 | \$0.55 | \$1.03 | \$0.65 | \$0.60 | \$0.68 |
| Fuel, oil, and grease per cwt. | 30 | \$0.50 | \$0.50 | \$0.57 | \$0.61 | \$0.91 | \$0.91 | \$0.93 | \$1.08 |
| Fertilizer & lime per cwt. | 31 | \$0.25 | \$0.45 | \$0.59 | \$0.78 | \$0.50 | \$0.65 | \$0.82 | \$1.45 |
| Seeds & plants per cwt. | 32 | \$0.35 | \$0.37 | \$0.43 | \$0.60 | \$0.37 | \$0.39 | \$0.51 | \$0.65 |
| Spray & other exp. per cwt. | 33 | \$0.25 | \$0.21 | \$0.20 | \$0.31 | \$0.23 | \$0.27 | \$0.31 | \$0.45 |
| Real est. rent & lease per cwt. | 34 | \$0.21 | \$0.30 | \$0.31 | \$0.56 | \$0.24 | \$0.25 | \$0.33 | \$0.48 |
| Mach depreciation per cwt. | 35 | \$0.68 | \$0.76 | \$0.84 | \$1.04 | \$0.75 | \$0.84 | \$0.89 | \$1.16 |
| Fertilizer & lime per acre | 36 | \$55.58 | \$73.40 | \$83.74 | \$83.13 | \$110.16 | \$119.29 | \$119.37 | \$142.29 |
| Seeds & plants per acre | 37 | \$64.23 | \$64.79 | \$60.68 | \$61.29 | \$69.42 | \$71.51 | \$63.77 | \$67.17 |
| Spray & other crop exp. per acre | 38 | \$39.63 | \$36.78 | \$27.08 | \$31.34 | \$36.14 | \$48.54 | \$46.35 | \$48.93 |
| Total crop expense per acre | 39 | \$159.44 | \$174.97 | \$171.50 | \$175.76 | \$215.72 | \$239.34 | \$229.49 | \$258.39 |
| <i>Capital Efficiency</i> | | | | | | | | | |
| Farm capital per cow | 40 | \$11,499 | \$11,842 | \$12,854 | \$14,011 | \$12,386 | \$12,884 | \$13,936 | \$15,149 |
| Mach and equipment per cow | 41 | \$1,578 | \$1,834 | \$1,914 | \$2,406 | \$1,742 | \$2,050 | \$2,109 | \$2,668 |
| Real estate per cow | 42 | \$4,780 | \$5,136 | \$5,983 | \$6,656 | \$4,998 | \$5,380 | \$6,183 | \$6,930 |
| Asset turnover ratio | 43 | 0.55 | 0.55 | 0.50 | 0.49 | 0.68 | 0.67 | 0.62 | 0.59 |
| Farm debt per cow | 44 | \$3,276 | \$3,755 | \$4,082 | \$4,933 | \$3,315 | \$3,894 | \$4,281 | \$4,951 |
| Percent equity | 45 | 72% | 68% | 68% | 65% | 73% | 70% | 69% | 67% |
| Operating expense ratio | 46 | 0.83 | 0.82 | 0.81 | 0.80 | 0.76 | 0.74 | 0.71 | 0.73 |
| Depreciation expense ratio | 47 | 0.06 | 0.06 | 0.07 | 0.08 | 0.05 | 0.05 | 0.05 | 0.06 |

¹ Groups determined by 2022 Non-forage acres per cow

DAIRY FARM BUSINESS SUMMARY SELECTED FACTORS

DAIRY GRAIN PRODUCTION FOCUS

Table 2

Sorted by 2022 Non-Forage Acres per Cow, Same 124 New York Farms, DFBS, 2023 and 2024¹

| SELECTED FACTORS | | 2023 | | | | 2024 | | | |
|---|----|-------------------------------|----------------------------|----------------------------|----------------------------|-------------------------------|----------------------------|----------------------------|----------------------------|
| | | Average of Lowest Quartile | Average of 2nd Quartile | Average of 3rd Quartile | Average of Top Quartile | Average of Lowest Quartile | Average of 2nd Quartile | Average of 3rd Quartile | Average of Top Quartile |
| <i>Business Characteristics</i> | | | | | | | | | |
| Average number of cows | 1 | 1,294 | 1,742 | 1,321 | 1,047 | 1,337 | 1,835 | 1,374 | 1,101 |
| Tillable acres per cow | 2 | 1.49 | 1.46 | 1.94 | 2.56 | 1.49 | 1.45 | 1.92 | 2.46 |
| Non-forage acres per cow | 3 | 0.03 | 0.14 | 0.35 | 1.00 | 0.03 | 0.17 | 0.34 | 0.91 |
| Forage acres per cow | 4 | 1.52 | 1.34 | 1.65 | 1.72 | 1.49 | 1.37 | 1.60 | 1.60 |
| Corn grain acres per cow | 5 | 0.03 | 0.09 | 0.25 | 0.63 | 0.03 | 0.10 | 0.24 | 0.59 |
| Percent tillable land owned | 6 | 55% | 53% | 50% | 49% | 55% | 52% | 49% | 50% |
| <i>Rates of Production</i> | | | | | | | | | |
| Milk sold per cow, pounds | 7 | 27,055 | 28,179 | 27,365 | 26,975 | 26,889 | 27,768 | 27,176 | 27,097 |
| Hay DM per acre, tons | 8 | 3.48 | 3.48 | 3.41 | 3.35 | 3.48 | 3.51 | 3.61 | 3.72 |
| Corn silage per acre, tons | 9 | 18.9 | 20.8 | 18.3 | 19.6 | 19.6 | 20.0 | 18.9 | 21.3 |
| Corn grain per acre, bushels | 10 | 140 | 152 | 147 | 163 | 118 | 163 | 153 | 160 |
| Harvested DM per cow, tons | 11 | 7.71 | 7.16 | 8.00 | 8.43 | 7.78 | 7.31 | 7.88 | 8.69 |
| <i>Labor Efficiency</i> | | | | | | | | | |
| Cows per worker | 12 | 55 | 55 | 54 | 49 | 55 | 57 | 55 | 50 |
| Milk sold per worker, pounds | 13 | 1,480,450 | 1,544,399 | 1,477,649 | 1,315,558 | 1,487,839 | 1,572,439 | 1,494,198 | 1,343,344 |
| <i>Revenue & Profitability</i> | | | | | | | | | |
| Net milk price | 14 | \$20.64 | \$21.02 | \$20.80 | \$20.96 | \$22.62 | \$22.90 | \$22.74 | \$22.77 |
| Crop revenue per cwt. | 15 | \$0.28 | \$0.73 | \$0.88 | \$1.58 | \$0.63 | \$0.41 | \$0.78 | \$1.46 |
| Misc receipts per cwt. | 16 | \$0.62 | \$0.70 | \$0.70 | \$0.70 | \$0.71 | \$0.72 | \$0.82 | \$0.62 |
| Net farm income w/o apprec. per cow | 17 | \$314 | \$588 | \$574 | \$447 | \$1,124 | \$1,270 | \$1,298 | \$913 |
| Rate of return on all cap w/apprec. | 19 | 8.7% | 9.8% | 8.5% | 8.8% | 15.6% | 15.6% | 14.7% | 12.1% |
| Rate of return on all cap w/o apprec. | 20 | 2.6% | 4.7% | 4.3% | 3.0% | 8.2% | 9.2% | 8.7% | 5.7% |
| <i>Cost Control</i> | | | | | | | | | |
| Dairy grain & concentrate per cwt. | 21 | \$7.84 | \$8.25 | \$7.53 | \$7.22 | \$7.58 | \$7.59 | \$7.11 | \$6.78 |
| Dairy roughage per cwt. | 22 | \$0.59 | \$0.56 | \$0.46 | \$0.17 | \$0.74 | \$0.48 | \$0.39 | \$0.25 |
| Labor and mach costs per cow | 23 | \$2,113 | \$2,107 | \$2,195 | \$2,424 | \$2,183 | \$2,185 | \$2,288 | \$2,590 |
| Hired labor costs per cwt. | 24 | \$3.30 | \$3.31 | \$3.42 | \$3.72 | \$3.42 | \$3.47 | \$3.62 | \$3.91 |
| Hired labor costs per worker equiv. | 25 | \$54,568 | \$56,812 | \$57,393 | \$56,628 | \$56,583 | \$60,364 | \$61,109 | \$60,672 |
| Oper. cost of prod. milk per cwt. | 26 | \$19.91 | \$19.14 | \$18.82 | \$19.11 | \$18.69 | \$18.25 | \$17.81 | \$18.92 |
| Total cost of prod. milk per cwt. | 27 | \$23.86 | \$23.12 | \$23.14 | \$24.11 | \$22.92 | \$22.65 | \$22.39 | \$24.28 |

DAIRY FARM BUSINESS SUMMARY SELECTED FACTORS

DAIRY GRAIN PRODUCTION FOCUS

Table 2 Continued

Sorted by 2022 Non-Forage Acres per Cow, Same 124 New York Farms, DFBS, 2023 and 2024¹

2023

2024

| SELECTED FACTORS | | Average of Lowest Quartile | Average of 2nd Quartile | Average of 3rd Quartile | Average of Top Quartile | Average of Lowest Quartile | Average of 2nd Quartile | Average of 3rd Quartile | Average of Top Quartile |
|-------------------------------------|----|-------------------------------|----------------------------|----------------------------|----------------------------|-------------------------------|----------------------------|----------------------------|----------------------------|
| <i>Crop Enterprise</i> | | | | | | | | | |
| Mach repair & vehicle exp. per cwt. | 28 | \$1.13 | \$1.10 | \$1.45 | \$1.45 | \$1.14 | \$1.10 | \$1.49 | \$1.47 |
| Mach hire, rent, & lease per cwt. | 29 | \$1.07 | \$0.67 | \$0.59 | \$0.62 | \$1.24 | \$0.74 | \$0.65 | \$0.91 |
| Fuel, oil, and grease per cwt. | 30 | \$0.75 | \$0.74 | \$0.76 | \$0.87 | \$0.67 | \$0.70 | \$0.73 | \$0.80 |
| Fertilizer & lime per cwt. | 31 | \$0.41 | \$0.52 | \$0.72 | \$1.11 | \$0.36 | \$0.50 | \$0.60 | \$0.97 |
| Seeds & plants per cwt. | 32 | \$0.44 | \$0.44 | \$0.52 | \$0.61 | \$0.39 | \$0.42 | \$0.52 | \$0.70 |
| Spray & other exp. per cwt. | 33 | \$0.19 | \$0.28 | \$0.30 | \$0.41 | \$0.23 | \$0.26 | \$0.31 | \$0.37 |
| Real est. rent & lease per cwt. | 34 | \$0.21 | \$0.24 | \$0.30 | \$0.55 | \$0.24 | \$0.27 | \$0.35 | \$0.59 |
| Mach depreciation per cwt. | 35 | \$0.85 | \$0.92 | \$0.96 | \$1.28 | \$0.90 | \$1.09 | \$1.06 | \$1.38 |
| Fertilizer & lime per acre | 36 | \$80.52 | \$92.31 | \$108.31 | \$109.70 | \$76.03 | \$92.72 | \$88.98 | \$99.88 |
| Seeds & plants per acre | 37 | \$82.31 | \$84.15 | \$71.89 | \$64.20 | \$71.49 | \$74.89 | \$70.57 | \$76.32 |
| Spray & other crop exp. per acre | 38 | \$35.31 | \$46.02 | \$41.01 | \$42.50 | \$36.77 | \$50.63 | \$45.83 | \$40.80 |
| Total crop expense per acre | 39 | \$198.14 | \$222.48 | \$221.21 | \$216.40 | \$184.29 | \$218.24 | \$205.38 | \$217.00 |
| <i>Capital Efficiency</i> | | | | | | | | | |
| Farm capital per cow | 40 | \$13,348 | \$13,628 | \$14,910 | \$16,447 | \$14,389 | \$14,638 | \$15,939 | \$17,444 |
| Mach and equipment per cow | 41 | \$1,956 | \$2,289 | \$2,338 | \$2,976 | \$2,113 | \$2,506 | \$2,538 | \$3,111 |
| Real estate per cow | 42 | \$5,388 | \$5,582 | \$6,386 | \$7,434 | \$5,721 | \$5,721 | \$6,455 | \$7,880 |
| Asset turnover ratio | 43 | 0.58 | 0.6 | 0.52 | 0.51 | 0.61 | 0.62 | 0.56 | 0.53 |
| Farm debt per cow | 44 | \$3,643 | \$4,183 | \$4,645 | \$5,327 | \$3,701 | \$4,106 | \$4,595 | \$5,628 |
| Percent equity | 45 | 73% | 69% | 69% | 68% | 74% | 72% | 71% | 68% |
| Operating expense ratio | 46 | 0.87 | 0.83 | 0.82 | 0.83 | 0.77 | 0.75 | 0.74 | 0.77 |
| Depreciation expense ratio | 47 | 0.06 | 0.06 | 0.07 | 0.08 | 0.06 | 0.06 | 0.06 | 0.08 |

¹ Groups determined by 2022 Non-forage acres per cow

Table 3

SELECTED FARM BUSINESS CHARTS, 2021

Sorted by 2022 Non-Forage Acres per Cow, 124 New York Dairy Farms, DFBS
Each Column Sorted Independently

Farm Business Charts are used to show the range in performance within a group. Shown below are the 4 quartile groups with the same farms in each group over the period 2021 - 2024. Within each group, the quintile range is shown for each metric. Each column is sorted independently and does not correspond to data across a row. This may be used as a tool in analyzing your business if you know what non-forage (grain) quartile you fit into based on your farm non-forage acres per cow.

Lowest Quartile

| Average Number of Cows | Milk Sold per cow | Cows per Worker Equivalent | Tillable Acres per cow | Crop Expense per acre | Purch. Grain & Conc. per cwt. | Dairy Feed & Crop Exp. per cwt. | Operating Cost to Produce Milk per cwt. | Total Cost of Milk Prod. per cwt. | Milk Receipts per cwt. |
|------------------------|-------------------|----------------------------|------------------------|-----------------------|-------------------------------|---------------------------------|---|-----------------------------------|------------------------|
| 313 | 22,016 | 38 | 1.01 | \$102 | \$5.53 | \$6.99 | \$14.19 | \$18.34 | \$18.96 |
| 629 | 25,295 | 48 | 1.44 | \$132 | \$6.25 | \$7.72 | \$15.50 | \$19.40 | \$19.70 |
| 887 | 26,549 | 54 | 1.71 | \$147 | \$6.65 | \$8.20 | \$16.57 | \$20.59 | \$19.98 |
| 1,591 | 27,817 | 62 | 1.93 | \$188 | \$7.13 | \$8.72 | \$17.67 | \$21.63 | \$20.36 |
| 2,992 | 29,352 | 74 | 2.32 | \$237 | \$7.69 | \$9.49 | \$19.02 | \$24.47 | \$21.37 |

2nd Quartile

| Average Number of Cows | Milk Sold per cow | Cows per Worker Equivalent | Tillable Acres per cow | Crop Expense per acre | Purch. Grain & Conc. per cwt. | Dairy Feed & Crop Exp. per cwt. | Operating Cost to Produce Milk per cwt. | Total Cost of Milk Prod. per cwt. | Milk Receipts per cwt. |
|------------------------|-------------------|----------------------------|------------------------|-----------------------|-------------------------------|---------------------------------|---|-----------------------------------|------------------------|
| 436 | 21,753 | 40 | 1.17 | \$105 | \$5.87 | \$7.57 | \$14.73 | \$19.08 | \$19.19 |
| 988 | 26,743 | 47 | 1.37 | \$154 | \$6.66 | \$8.15 | \$16.07 | \$19.99 | \$19.62 |
| 1,249 | 27,644 | 54 | 1.60 | \$185 | \$7.06 | \$8.52 | \$16.65 | \$20.20 | \$20.08 |
| 1,693 | 28,661 | 62 | 1.87 | \$204 | \$7.38 | \$8.92 | \$17.21 | \$20.96 | \$20.39 |
| 3,940 | 29,802 | 75 | 2.46 | \$238 | \$7.89 | \$9.38 | \$18.27 | \$22.78 | \$21.52 |

3rd Quartile

| Average Number of Cows | Milk Sold per cow | Cows per Worker Equivalent | Tillable Acres per cow | Crop Expense per acre | Purch. Grain & Conc. per cwt. | Dairy Feed & Crop Exp. per cwt. | Operating Cost to Produce Milk per cwt. | Total Cost of Milk Prod. per cwt. | Milk Receipts per cwt. |
|------------------------|-------------------|----------------------------|------------------------|-----------------------|-------------------------------|---------------------------------|---|-----------------------------------|------------------------|
| 213 | 22,688 | 37 | 1.59 | \$112 | \$5.49 | \$6.88 | \$13.93 | \$18.23 | \$18.79 |
| 658 | 25,560 | 46 | 1.91 | \$149 | \$6.24 | \$7.77 | \$15.17 | \$19.48 | \$19.61 |
| 1,067 | 26,856 | 51 | 2.06 | \$162 | \$6.69 | \$8.24 | \$16.36 | \$20.83 | \$20.16 |
| 1,652 | 27,952 | 54 | 2.15 | \$196 | \$7.20 | \$8.97 | \$17.24 | \$22.17 | \$20.59 |
| 2,689 | 29,452 | 69 | 3.13 | \$247 | \$8.35 | \$10.40 | \$19.34 | \$24.13 | \$22.07 |

Top Quartile

| Average Number of Cows | Milk Sold per cow | Cows per Worker Equivalent | Tillable Acres per cow | Crop Expense per acre | Purch. Grain & Conc. per cwt. | Dairy Feed & Crop Exp. per cwt. | Operating Cost to Produce Milk per cwt. | Total Cost of Milk Prod. per cwt. | Milk Receipts per cwt. |
|------------------------|-------------------|----------------------------|------------------------|-----------------------|-------------------------------|---------------------------------|---|-----------------------------------|------------------------|
| 289 | 22,192 | 33 | 1.83 | \$93 | \$5.39 | \$7.24 | \$13.43 | \$18.14 | \$18.67 |
| 671 | 26,253 | 43 | 2.29 | \$160 | \$6.01 | \$7.89 | \$14.76 | \$19.09 | \$19.19 |
| 890 | 27,036 | 49 | 2.55 | \$176 | \$6.45 | \$8.46 | \$15.97 | \$20.55 | \$19.82 |
| 1,257 | 27,829 | 54 | 3.13 | \$207 | \$6.91 | \$8.98 | \$16.93 | \$22.75 | \$20.45 |
| 1,962 | 28,840 | 63 | 4.11 | \$256 | \$7.51 | \$10.07 | \$19.78 | \$25.89 | \$21.77 |

Table 4

SELECTED FARM BUSINESS CHARTS, 2022

Sorted by 2022 Non-Forage Acres per Cow, 124 New York Dairy Farms, DFBS
Each Column Sorted Independently

Farm Business Charts are used to show the range in performance within a group. Shown below are the 4 quartile groups with the same farms in each group over the period 2021 - 2024. Within each group, the quintile range is shown for each metric. Each column is sorted independently and does not correspond to data across a row. This may be used as a tool in analyzing your business if you know what non-forage (grain) quartile you fit into based on your farm non-forage acres per cow.

Lowest Quartile

| Average Number of Cows | Milk Sold per cow | Cows per Worker Equivalent | Tillable Acres per cow | Crop Expense per acre | Purch. Grain & Conc. per cwt. | Dairy Feed & Crop Exp. per cwt. | Operating Cost to Produce Milk per cwt. | Total Cost of Milk Prod. per cwt. | Milk Receipts per cwt. |
|------------------------|-------------------|----------------------------|------------------------|-----------------------|-------------------------------|---------------------------------|---|-----------------------------------|------------------------|
| 311 | 21,875 | 39 | 1.00 | \$114 | \$6.77 | \$8.26 | \$16.48 | \$20.97 | \$25.89 |
| 653 | 25,432 | 49 | 1.38 | \$162 | \$7.66 | \$9.25 | \$18.48 | \$23.50 | \$26.75 |
| 936 | 26,679 | 54 | 1.65 | \$198 | \$8.09 | \$10.20 | \$20.91 | \$25.19 | \$27.26 |
| 1,586 | 27,684 | 60 | 1.90 | \$265 | \$8.77 | \$10.81 | \$23.02 | \$27.32 | \$27.77 |
| 3,036 | 29,235 | 73 | 2.60 | \$356 | \$9.99 | \$12.40 | \$25.02 | \$30.05 | \$28.65 |

2nd Quartile

| Average Number of Cows | Milk Sold per cow | Cows per Worker Equivalent | Tillable Acres per cow | Crop Expense per acre | Purch. Grain & Conc. per cwt. | Dairy Feed & Crop Exp. per cwt. | Operating Cost to Produce Milk per cwt. | Total Cost of Milk Prod. per cwt. | Milk Receipts per cwt. |
|------------------------|-------------------|----------------------------|------------------------|-----------------------|-------------------------------|---------------------------------|---|-----------------------------------|------------------------|
| 439 | 21,890 | 40 | 1.20 | \$152 | \$6.82 | \$8.74 | \$17.11 | \$21.81 | \$25.57 |
| 1,015 | 26,859 | 48 | 1.39 | \$202 | \$7.78 | \$9.67 | \$19.25 | \$23.25 | \$26.63 |
| 1,299 | 27,802 | 55 | 1.58 | \$234 | \$8.16 | \$10.17 | \$20.48 | \$24.59 | \$27.01 |
| 1,744 | 28,826 | 62 | 1.80 | \$261 | \$8.51 | \$10.58 | \$21.41 | \$25.49 | \$27.48 |
| 4,109 | 29,941 | 76 | 2.29 | \$363 | \$9.70 | \$11.52 | \$23.17 | \$27.66 | \$28.96 |

3rd Quartile

| Average Number of Cows | Milk Sold per cow | Cows per Worker Equivalent | Tillable Acres per cow | Crop Expense per acre | Purch. Grain & Conc. per cwt. | Dairy Feed & Crop Exp. per cwt. | Operating Cost to Produce Milk per cwt. | Total Cost of Milk Prod. per cwt. | Milk Receipts per cwt. |
|------------------------|-------------------|----------------------------|------------------------|-----------------------|-------------------------------|---------------------------------|---|-----------------------------------|------------------------|
| 217 | 22,178 | 40 | 1.60 | \$148 | \$5.99 | \$7.86 | \$16.36 | \$21.28 | \$25.70 |
| 674 | 25,146 | 47 | 1.94 | \$201 | \$7.29 | \$9.46 | \$18.08 | \$22.30 | \$26.56 |
| 1,091 | 26,976 | 51 | 2.06 | \$230 | \$7.94 | \$10.03 | \$19.34 | \$23.93 | \$27.28 |
| 1,685 | 28,223 | 54 | 2.17 | \$258 | \$8.55 | \$10.49 | \$20.43 | \$25.31 | \$27.76 |
| 2,788 | 29,840 | 71 | 3.13 | \$324 | \$10.26 | \$12.94 | \$22.69 | \$28.65 | \$29.47 |

Top Quartile

| Average Number of Cows | Milk Sold per cow | Cows per Worker Equivalent | Tillable Acres per cow | Crop Expense per acre | Purch. Grain & Conc. per cwt. | Dairy Feed & Crop Exp. per cwt. | Operating Cost to Produce Milk per cwt. | Total Cost of Milk Prod. per cwt. | Milk Receipts per cwt. |
|------------------------|-------------------|----------------------------|------------------------|-----------------------|-------------------------------|---------------------------------|---|-----------------------------------|------------------------|
| 213 | 19,071 | 28 | 1.60 | \$121 | \$4.80 | \$6.98 | \$14.07 | \$18.31 | \$22.06 |
| 659 | 25,816 | 41 | 2.18 | \$225 | \$6.61 | \$9.17 | \$18.55 | \$23.80 | \$26.45 |
| 924 | 26,954 | 49 | 2.54 | \$261 | \$7.16 | \$9.77 | \$20.38 | \$25.16 | \$26.75 |
| 1,323 | 27,597 | 52 | 3.12 | \$294 | \$7.45 | \$10.58 | \$21.06 | \$26.16 | \$27.24 |
| 2,006 | 29,316 | 63 | 4.12 | \$376 | \$8.18 | \$12.03 | \$22.69 | \$29.83 | \$29.35 |

Table 5
SELECTED FARM BUSINESS CHARTS, 2023
 Sorted by 2022 Non-Forage Acres per Cow, 124 New York Dairy Farms, DFBS
 Each Column Sorted Independently

Farm Business Charts are used to show the range in performance within a group. Shown below are the 4 quartile groups with the same farms in each group over the period 2021 - 2024. Within each group, the quintile range is shown for each metric. Each column is sorted independently and does not correspond to data across a row. This may be used as a tool in analyzing your business if you know what non-forage (grain) quartile you fit into based on your farm non-forage acres per cow.

Lowest Quartile

| Average Number of Cows | Milk Sold per cow | Cows per Worker Equivalent | Tillable Acres per cow | Crop Expense per acre | Purch. Grain & Conc. per cwt. | Dairy Feed & Crop Exp. per cwt. | Operating Cost to Produce Milk per cwt. | Total Cost of Milk Prod. per cwt. | Milk Receipts per cwt. |
|------------------------|-------------------|----------------------------|------------------------|-----------------------|-------------------------------|---------------------------------|---|-----------------------------------|------------------------|
| 327 | 22,277 | 38 | 1.01 | \$124 | \$6.37 | \$7.92 | \$15.75 | \$21.15 | \$21.63 |
| 659 | 25,778 | 48 | 1.41 | \$158 | \$7.60 | \$9.11 | \$18.57 | \$22.96 | \$22.44 |
| 964 | 26,939 | 56 | 1.67 | \$193 | \$7.93 | \$9.51 | \$19.65 | \$24.43 | \$22.98 |
| 1,598 | 27,910 | 61 | 1.91 | \$232 | \$8.27 | \$10.36 | \$21.84 | \$26.38 | \$23.63 |
| 3,081 | 29,140 | 74 | 2.45 | \$296 | \$9.01 | \$11.16 | \$24.67 | \$29.28 | \$24.26 |

2nd Quartile

| Average Number of Cows | Milk Sold per cow | Cows per Worker Equivalent | Tillable Acres per cow | Crop Expense per acre | Purch. Grain & Conc. per cwt. | Dairy Feed & Crop Exp. per cwt. | Operating Cost to Produce Milk per cwt. | Total Cost of Milk Prod. per cwt. | Milk Receipts per cwt. |
|------------------------|-------------------|----------------------------|------------------------|-----------------------|-------------------------------|---------------------------------|---|-----------------------------------|------------------------|
| 433 | 22,320 | 41 | 1.17 | \$147 | \$6.63 | \$8.68 | \$16.50 | \$21.42 | \$22.17 |
| 1,027 | 27,218 | 47 | 1.40 | \$189 | \$7.58 | \$9.33 | \$18.73 | \$23.23 | \$22.71 |
| 1,335 | 28,286 | 54 | 1.56 | \$220 | \$8.02 | \$10.02 | \$19.92 | \$23.98 | \$23.02 |
| 1,818 | 29,019 | 62 | 1.79 | \$254 | \$8.57 | \$10.59 | \$20.85 | \$24.89 | \$23.46 |
| 4,316 | 29,988 | 75 | 2.32 | \$315 | \$9.65 | \$11.34 | \$23.05 | \$27.61 | \$24.70 |

3rd Quartile

| Average Number of Cows | Milk Sold per cow | Cows per Worker Equivalent | Tillable Acres per cow | Crop Expense per acre | Purch. Grain & Conc. per cwt. | Dairy Feed & Crop Exp. per cwt. | Operating Cost to Produce Milk per cwt. | Total Cost of Milk Prod. per cwt. | Milk Receipts per cwt. |
|------------------------|-------------------|----------------------------|------------------------|-----------------------|-------------------------------|---------------------------------|---|-----------------------------------|------------------------|
| 219 | 22,909 | 38 | 1.51 | \$146 | \$6.40 | \$8.27 | \$16.24 | \$21.10 | \$21.78 |
| 670 | 25,709 | 47 | 1.98 | \$184 | \$7.04 | \$9.12 | \$17.41 | \$22.15 | \$22.30 |
| 1,184 | 27,572 | 50 | 2.06 | \$215 | \$7.79 | \$9.79 | \$19.01 | \$24.02 | \$22.87 |
| 1,801 | 29,211 | 55 | 2.18 | \$264 | \$8.23 | \$10.30 | \$20.62 | \$25.61 | \$23.61 |
| 2,915 | 29,886 | 68 | 3.13 | \$310 | \$9.14 | \$11.66 | \$22.16 | \$28.46 | \$24.93 |

Top Quartile

| Average Number of Cows | Milk Sold per cow | Cows per Worker Equivalent | Tillable Acres per cow | Crop Expense per acre | Purch. Grain & Conc. per cwt. | Dairy Feed & Crop Exp. per cwt. | Operating Cost to Produce Milk per cwt. | Total Cost of Milk Prod. per cwt. | Milk Receipts per cwt. |
|------------------------|-------------------|----------------------------|------------------------|-----------------------|-------------------------------|---------------------------------|---|-----------------------------------|------------------------|
| 279 | 22,925 | 32 | 1.93 | \$129 | \$5.81 | \$8.02 | \$16.20 | \$22.11 | \$21.48 |
| 698 | 26,222 | 43 | 2.23 | \$191 | \$6.78 | \$8.95 | \$18.42 | \$23.60 | \$22.35 |
| 958 | 26,874 | 48 | 2.53 | \$220 | \$7.23 | \$9.42 | \$19.47 | \$24.69 | \$23.00 |
| 1,387 | 27,963 | 52 | 3.24 | \$235 | \$7.80 | \$10.27 | \$20.47 | \$25.86 | \$23.42 |
| 2,040 | 29,195 | 63 | 4.24 | \$321 | \$8.30 | \$11.73 | \$22.76 | \$29.78 | \$24.92 |

Table 6
SELECTED FARM BUSINESS CHARTS, 2024
 Sorted by 2022 Non-Forage Acres per Cow, 124 New York Dairy Farms, DFBS
 Each Column Sorted Independently

Farm Business Charts are used to show the range in performance within a group. Shown below are the 4 quartile groups with the same farms in each group over the period 2021 - 2024. Within each group, the quintile range is shown for each metric. Each column is sorted independently and does not correspond to data across a row. This may be used as a tool in analyzing your business if you know what non-forage (grain) quartile you fit into based on your farm non-forage acres per cow.

Lowest Quartile

| Average Number of Cows | Milk Sold per cow | Cows per Worker Equivalent | Tillable Acres per cow | Crop Expense per acre | Purch. Grain & Conc. per cwt. | Dairy Feed & Crop Exp. per cwt. | Operating Cost to Produce Milk per cwt. | Total Cost of Milk Prod. per cwt. | Milk Receipts per cwt. |
|------------------------|-------------------|----------------------------|------------------------|-----------------------|-------------------------------|---------------------------------|---|-----------------------------------|------------------------|
| 368 | 22,133 | 40 | 1.02 | \$112 | \$5.76 | \$7.32 | \$14.50 | \$19.54 | \$23.15 |
| 679 | 25,892 | 47 | 1.42 | \$145 | \$6.86 | \$8.38 | \$17.05 | \$21.87 | \$23.94 |
| 983 | 26,932 | 54 | 1.67 | \$171 | \$7.57 | \$9.17 | \$18.50 | \$24.20 | \$24.42 |
| 1,623 | 28,038 | 63 | 1.88 | \$213 | \$7.92 | \$9.59 | \$20.68 | \$25.33 | \$24.97 |
| 3,195 | 29,192 | 76 | 2.36 | \$292 | \$9.17 | \$11.40 | \$23.03 | \$27.44 | \$25.69 |

2nd Quartile

| Average Number of Cows | Milk Sold per cow | Cows per Worker Equivalent | Tillable Acres per cow | Crop Expense per acre | Purch. Grain & Conc. per cwt. | Dairy Feed & Crop Exp. per cwt. | Operating Cost to Produce Milk per cwt. | Total Cost of Milk Prod. per cwt. | Milk Receipts per cwt. |
|------------------------|-------------------|----------------------------|------------------------|-----------------------|-------------------------------|---------------------------------|---|-----------------------------------|------------------------|
| 429 | 22,301 | 41 | 1.14 | \$132 | \$6.12 | \$7.93 | \$14.76 | \$20.09 | \$23.89 |
| 1,047 | 26,655 | 48 | 1.41 | \$177 | \$7.15 | \$8.76 | \$17.06 | \$22.33 | \$24.34 |
| 1,343 | 28,025 | 57 | 1.58 | \$208 | \$7.56 | \$9.26 | \$19.21 | \$23.72 | \$24.68 |
| 1,968 | 28,880 | 63 | 1.89 | \$252 | \$7.96 | \$9.79 | \$20.77 | \$24.83 | \$24.96 |
| 4,621 | 29,525 | 74 | 2.31 | \$336 | \$8.75 | \$10.69 | \$23.09 | \$28.22 | \$26.06 |

3rd Quartile

| Average Number of Cows | Milk Sold per cow | Cows per Worker Equivalent | Tillable Acres per cow | Crop Expense per acre | Purch. Grain & Conc. per cwt. | Dairy Feed & Crop Exp. per cwt. | Operating Cost to Produce Milk per cwt. | Total Cost of Milk Prod. per cwt. | Milk Receipts per cwt. |
|------------------------|-------------------|----------------------------|------------------------|-----------------------|-------------------------------|---------------------------------|---|-----------------------------------|------------------------|
| 220 | 23,251 | 38 | 1.51 | \$133 | \$5.88 | \$7.72 | \$14.21 | \$19.57 | \$23.17 |
| 692 | 26,051 | 45 | 1.99 | \$176 | \$6.84 | \$8.75 | \$16.87 | \$21.88 | \$23.94 |
| 1,235 | 27,032 | 51 | 2.08 | \$212 | \$7.26 | \$9.08 | \$18.96 | \$23.42 | \$24.19 |
| 1,821 | 28,441 | 56 | 2.21 | \$245 | \$7.63 | \$9.59 | \$19.63 | \$25.79 | \$24.67 |
| 3,095 | 29,476 | 71 | 3.13 | \$272 | \$8.79 | \$10.94 | \$21.02 | \$27.55 | \$25.82 |

Top Quartile

| Average Number of Cows | Milk Sold per cow | Cows per Worker Equivalent | Tillable Acres per cow | Crop Expense per acre | Purch. Grain & Conc. per cwt. | Dairy Feed & Crop Exp. per cwt. | Operating Cost to Produce Milk per cwt. | Total Cost of Milk Prod. per cwt. | Milk Receipts per cwt. |
|------------------------|-------------------|----------------------------|------------------------|-----------------------|-------------------------------|---------------------------------|---|-----------------------------------|------------------------|
| 284 | 22,197 | 33 | 1.88 | \$137 | \$5.68 | \$7.67 | \$14.93 | \$21.12 | \$23.20 |
| 683 | 25,940 | 43 | 2.13 | \$193 | \$6.32 | \$8.69 | \$17.65 | \$23.79 | \$23.83 |
| 1,006 | 27,182 | 47 | 2.50 | \$213 | \$6.75 | \$9.20 | \$19.13 | \$25.33 | \$24.24 |
| 1,465 | 27,761 | 52 | 3.11 | \$246 | \$7.24 | \$9.95 | \$21.48 | \$27.46 | \$24.94 |
| 2,203 | 29,476 | 66 | 4.01 | \$309 | \$8.01 | \$11.02 | \$23.79 | \$31.47 | \$26.61 |

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