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# Vermont Dairy Goat Report

## Tier 3: Large-Scale Producer Profile (250–500 Does)

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## About This Publication Series

This report focuses on Vermont dairy goat producers operating in the **commercial range of 250 to 500 milking does.** Data are drawn from a Vermont producer survey conducted by UVM Extension. Financial benchmarks draw on results from DAIRY GOAT TRANS version 2.26, a national benchmark tool (Tranel, ISU Extension, 2024).

This tier of producers represents larger commercial dairy goat operations in our survey. These farms have absorbed the capital cost and operational disruption of building a herd and have reached a scale at which fixed costs begin to reduce their effect on the bottom line. However, the gap between current per-doe production and national benchmarks, combined with Vermont-specific labor and operating costs, shows that profitability at this scale is not guaranteed.

This report is based on the data available and demonstrates important data gaps and shortfalls in publicly available financial information to describe this business model. Ongoing research is needed to better represent the current conditions on Vermont goat dairy farms. The series of publications on different scales of dairy goat business profiles is intended to spotlight the key financial and management indicators used to evaluate farm business performance. These indicators can be used by managers and prospective dairy owners to understand the challenges and opportunities to goat dairy viability. For this series, we will examine feedback from survey respondents that fit into the following tiers:

| Tier | Does | Description |
|---|---|---|
| T1 | 27–150 | Mid-scale commercial |
| T2 | 151–249 | Mid-scale commercial |
| T3 | 250–500 | Large commercial (this publication) |

Tier 3 farms in this dataset average 415 peak milkers. There were only 4 farms contributing data to this study. Standard deviations are large relative to means. All figures should be treated as directional rather than statistically stable. Do not use these means as precise benchmarks without acknowledging the small sample. **Please interpret all means with caution. Treat all data in this report as informational, not definitive.**

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# Key Findings

## Production Approaches the National Benchmark

Tier 3 farms average 2,197 lbs. of milk per doe per year, approaching the GOAT TRANS benchmark of 2,300 lbs. and well above the Tier 2 mean of 1,525 lbs. The improvement with scale is consistent with the expectation that larger operations achieve better genetic selection and herd management over time.

## Replacement Stock Reflects a Maturing Operation

Replacement does average 28% of the herd at Tier 3, down from 34% at Tier 2. Tier 3 farms have likely already absorbed the capital cost and operational disruption of establishing their ideal herd numbers, while Tier 2 farms are still in that phase. The higher replacement percentage at Tier 2 is not a sign of inefficiency, it is a sign of where those farms are in their growth trajectory. The distinction matters for how advisors and producers interpret cash flow and feed cost pressures at each scale.

## Herd Output Is the Highest of Any Tier

Estimated annual herd production averages 765,257 lbs. for Tier 3, compared to 287,208 lbs. for Tier 2 and 521,205 lbs. for the all-tier sample. This level of output creates stronger leverage for processor relationships and positions Tier 3 farms as the most commercially viable scale in the Vermont survey.

## Labor Efficiency Improves with Scale but Remains Below Benchmark

With 415 does and an estimated 3.5 total employees, Tier 3 farms achieve approximately 119 does per employee, double the Tier 2 ratio of 57 but still well below the GOAT TRANS benchmark of 150 to 200. Wage rates of $17.25 to $20.25 per hour are above the Tier 2 range and at the all-tier survey average. The most likely driver of remaining labor inefficiency is milking systems.

## Seasonality Concentrates in Spring and Fall

Tier 3 farms show 60% spring kidding and 30% fall kidding, with very little summer or winter production. This two-season pattern differs from the more distributed year-round approach at Tier 2 and may reflect deliberate management choices to avoid the complexity of summer and winter kidding at large scale while still meeting processor supply requirements across multiple seasons

Milking parlor at Grindstone Dairy

# Survey Data: Tier 3 vs. All Tiers

## Table 1. Herd Composition

| Variable | Tier 3 (n=4) | All Tiers |
|---|---|---|
| **Animal Counts (mean)** | | |
| Peak milking does | 415 | 243 |
| Dry does | 67 | 43 |
| Replacement does | 202 | 118 |
| Breeding bucks | 16 | 9 |
| Meat goats / wethers | 0 | 2.5 |
| **% of Total Herd (Tier 3)** | | |
| Peak milking does | 59% | 58% |
| Dry does | 10% | 10% |
| Replacement does | 29% | 28% |
| Breeding bucks | 2% | 2% |
| Meat goats / wethers | 0% | 1% |
| **Capacity and Goals** | | |
| Replacements as % of herd | 28% | 25% |
| Adult cull rate | 17% | 12% |

## Table 2. Milk Production

| Variable | Tier 3 (n=4) | All Tiers (n=16) |
|---|---|---|
| Avg. Milk / doe / yr (lbs) | 2,197 | 2,009 |
| Est. annual herd production (lbs) | 765,257 | N/A |
| Lactation length (days) | 439 | 438 |
| Adult cull rate | 3.25 | 2.06 |

## Table 3. Grain Inputs (lbs / head / day)

| Variable | Tier 3 (n=4) | All Tiers (n=16) |
|---|---|---|
| Milking does | 3.20 | 3.41 |
| Dry does | 1.00 | 1.13 |
| Kids | 0.73 | 0.96 |

## Table 4. Labor

| Variable | Tier 3 (n=4) | All Tiers (n=16) |
|---|---|---|
| Total employees | 3.5 | 4.1 |
| Family FT | 1.0 | 1.6 |
| Family PT | 0.25 | 1.3 |
| Non-family FT | 1.25 | 1.5 |
| Non-family PT | 1.0 | 2.5 |
| Estimated total FTE | 2.8 | 5 |
| Lowest hourly rate | $17.25 | $16.75 |
| Highest hourly rate | $20.25 | $20.42 |

## Table 5. Kidding Seasonality (%)

| Variable | Tier 3 (n=4) | All Tiers (n=16) |
|---|---|---|
| Spring | 60% | 67% |
| Fall | 30% | 14% |

## Table 6. Business Context

| Variable | Tier 3 (n=4) | All Tiers (n=16) |
|---|---|---|
| Years in business | 6 | 10 |

**Do you know your metrics? Use the table on page 4 to track what you know. Contact UVM Extension Ag Business Team to discuss your farm in detail.**

## Comparison to GOAT TRANS

The GOAT TRANS 400-milker Vermont model provides the closest available financial benchmark for Tier 3 operations. Production benchmarks are shown below; financial data were not collected in this survey. GOAT TRANS figures reflect data from "high-producing" farm data collected from the Northeast US region and adjusted to a Vermont 400-doe operating scenario at $60/cwt milk price. Financial benchmarks draw on results from DAIRY GOAT TRANS version 2.26, a national benchmark tool (Tranel, ISU Extension, 2024).

### Table 7. Production Benchmark Comparison

| Metric | Tier 3 Survey | GOAT TRANS 400-Doe |
|---|---|---|
| Milk / doe /yr (lbs) | 2,197 | 2,300 |
| Est. herd production (lbs) | 765,257 | 942,895 |
| Peak milkers | 415 | 400 (modeled) |
| Location length (days) | 439 | Not specified |
| Does / FTE (est.) | ~148 | 150–200 |
| Lbs. milk sold / FTE | ~219,000 | >400,000 |

### Table 8. Financial Benchmarks (GOAT TRANS 400-Doe)

GOAT TRANS was used to generate estimations based on collected benchmark data for a 400-milker Vermont model. Income based on $60/cwt of fluid milk. Goat dairy managers can insert numbers representing their own business in the "Your Dairy" column for comparison.

| Metric | Your Dairy | GOAT TRANS 400-Doe results |
|---|---|---|
| Milk sales / doe | | $1,200 |
| Feed cost / doe | | $700 |
| Total Cash Income | | $514,400 |
| Total Milk Sales | | $480,000 |
| Hired Labor Cost | | $40,000 |
| Net farm income | | $116,640 |
| Return on Assets (ROA) | | 18.9% |
| Break-even / cwt | | **$52.95** |

# What the Comparison Tells Us

## The Production Gap Is Closing

Tier 3 farms produce 2,197 lbs. per doe per year against a GOAT TRANS benchmark of 2,300 lbs., a gap of only 160 lbs. per doe. On a 415-doe herd, closing that gap entirely would add roughly 66,400 lbs. of annual production, worth approximately $39,840 in additional milk revenue at $60/cwt. Compared to Tier 2, where the gap was 775 lbs. per doe, Tier 3 is already well along the production improvement curve.

## Scale Is Delivering the Expected Financial Benefits

The GOAT TRANS 400-milker model produces a net farm income of $116,640 and an ROA of 18.9%, a superb score. **This is the strongest performance of any modeled scale.** The improvement from the 200-milker model ($69,550 net income, 12.1% ROA) to the 400-milker model demonstrates the fixed cost reduction effect at work: revenue nearly doubles while expenses grow more slowly, and capital invested per doe drops from $1,152 to $964.

## Labor Efficiency Has Room to Grow

Tier 3 farms achieve an estimated 148 does per full time employee, up from 57 at Tier 2, but still below the GOAT TRANS benchmark of 200 does per FTE. The GOAT TRANS 400-milker model runs at exactly 200 does per FTE with 2.0 total FTEs. Vermont Tier 3 farms average 2.8 employees for a similar herd size, suggesting that milking systems and task-level labor allocation are the primary levers for improvement. Vermont agricultural wages, year-round operational demands, and the cost of living in the region make the GOAT TRANS labor assumptions difficult to apply directly. Tier 3 producers should treat these labor metrics as long-range targets.

## The Debt Assumption

All GOAT TRANS models carry essentially zero debt. A Vermont producer purchasing or building a 400-doe operation is looking at a materially different financial structure. Estimates from GOAT TRANS suggest capital investments of around $350,000 to $400,000 could finance a new 400-doe dairy, though Vermont land, construction, and animal purchase costs may push this figure higher. The GOAT TRANS benchmarks are most useful as operational performance targets for an established operation, not as startup or acquisition projections.

# Implications for Tier 3 Producers

## The Advantage of Scale

Tier 3 represents our sample's most commercially viable dairy goat scale based on the data available. These farms have crossed the threshold where fixed costs reduce with effect on the bottom line, producing a per-doe production level approaching national benchmarks and an estimated annual herd output of 765,257 lbs. The GOAT TRANS 400-milker model demonstrates that a well-run operation at this scale can achieve an ROA of 18.9% and a net farm income exceeding $116,000 under modeled conditions. Vermont-specific labor and operating costs will reduce those figures, but the advantage of scale is clear.

## Per-Doe Production: Finishing the Job

The 160 lbs. per doe gap between the Tier 3 survey mean and the GOAT TRANS benchmark is the smallest of any tier. Closing this gap on a 415-doe herd represents approximately $39,840 in additional annual milk revenue at $60/cwt. The primary levers at this scale are genetic selection, breeding program consistency, and extended lactation management. Vermont's limited access to technical professionals and high-quality genetics remains a constraint, but Tier 3 farms with established herds have more culling flexibility to accelerate genetic improvement than smaller operations do.

## Replacement Stock: From Building to Managing

At 28% replacements as a share of herd, Tier 3 farms have moved from the aggressive replacement accumulation phase seen at Tier 2 (34%) toward a mainte-

nance replacement model. This shift reduces the cash flow and feed cost burden of carrying non-producing animals and frees capital for operational investment. The higher adult cull rate at Tier 3 (17% versus 12% for the total sample) reflects the greater culling flexibility that comes with a larger herd and a more established replacement supply.

### Kidding Strategy: The Two-Season Model

The spring-and-fall concentration of Tier 3 kidding (60% and 30% respectively) suggests a deliberate management choice to produce in two defined windows rather than year-round. This approach reduces the labor and management complexity of summer and winter kidding while still delivering multi-season milk supply. Farms considering this model should evaluate processor contract requirements carefully, as some Vermont processors reward year-round supply consistency with pricing premiums.

### Labor: The Remaining Efficiency Gap

Despite stronger per-doe production and better scale economics, Tier 3 farms still run significantly more labor per doe than the GOAT TRANS benchmark. The most likely explanation, consistent with feedback from Vermont producers, is milking system design. A parlor that cannot efficiently put through 400 or more does per milking session limits does-per-labor-hour regardless of herd size. Investment in parlor capacity and automation should be evaluated against the labor cost savings and the Return to Labor per FTE improvement it would generate.

Preparing for parlor audit at Hall and Breen Farm

## Understanding the Vermont Context

Vermont's Tier 3 farms are the state's closest representation to the commercial dairy goat operations that national benchmarks were designed to describe, yet meaningful differences remain. Vermont's agricultural land values, construction costs, and prevailing wages all push the capital and operating cost structure above what GOAT TRANS models assume. The absence of a stronger market for replacement animals accessible to Vermont farms means that herd building is slower and more expensive than in regions with an established commercial goat dairy industry. And Vermont's small number of large dairy goat operations means these farms have limited local peer networks for sharing management knowledge, troubleshooting production challenges, or negotiating collectively with processors.

## References

Tranel, L. (2024). Profitability of Iowa Dairy Goat Production in 2024. ISU Extension DA 3128.

Bentley, J., Busch, R., and Tranel, L. (2024). Profitability of the California Dairy Goat Industry Study in 2024. ISU Extension / UC Davis ANR.

DAIRY GOAT TRANS ver. 2.26. Tranel, L. ISU Extension. Copyright 2026.

Vermont Dairy Goat Producer Survey. UVM Extension Agricultural Business Team. n=16 total; n=4 Tier 1. (In review)

**Special thanks to the farm owners that participated in the survey.**