Dairy Expansion Credit Underwriting

Grant Luedtke | Independent agricultural finance project

Fictional 650-cow dairy • Fond du Lac County, Wisconsin

PROJECT COST	TERM LOAN REQUEST	BORROWER EQUITY
$2.0 million	**$1.5 million**	**$500,000**

CREDIT RECOMMENDATION: DECLINE AS STRUCTURED

The proposed expansion does not adequately support owner needs and recurring replacement spending. Reconsideration requires a smaller project, additional verified equity or demonstrated operating improvement, with a monthly liquidity plan.

2027 BASE CASE	CALCULATED RESULT
Term debt coverage	1.08x
Replacement cash DSCR	0.40x
Cash survival milk price	$23.80/cwt
Working capital	$1,114,374

Scope and supporting work

An integrated 14-tab Excel model links herd production, revenue, costs, financial statements, monthly debt amortization, repayment capacity and collateral. Six scenarios test milk price, feed costs, production, variable rates and a combined downside. The accompanying four-page memorandum explains the decision and conditions for reconsideration.

Financial periods: 2023–2025 fictional history, 2026 estimate and 2027–2029 projections. USDA NASS, UW Extension and Wisconsin DNR references are distinguished from illustrative borrower figures and underwriting assumptions.

Calculation review: 8,215 saved formulas independently recomputed; 32 sensitivity outputs checked. Native Microsoft Excel desktop execution was not performed. This project demonstrates analysis within its disclosed assumptions; it is not an actual credit approval, appraisal or lender policy.

Commercial credit memorandum

Borrower	Alder Creek Dairy LLC	Facility	Expansion term loan
Request	$1,500,000	Project cost	$2,000,000
New equity	$500,000 external	Purpose	Dairy capacity expansion

Recommendation: decline the $1.5 million request as structured. The $2 million expansion has acceptable illustrative collateral support, but repayment does not adequately fund family living, owner taxes and recurring replacement spending. Base 2027 term debt coverage is 1.08x, compared with a 1.25x case minimum. Replacement cash DSCR is 0.40x. Invite a revised proposal only after a smaller project, additional verified equity or demonstrated operating improvement restores both coverage and liquidity.

Purpose and borrower

Alder Creek Dairy LLC is an invented conventional Holstein operation in Fond du Lac County, Wisconsin. It has 650 mature cows including dry cows, 800 owned acres and 800 leased acres in 2026. Two owner managers oversee an assumed 12 paid full-time equivalent employees. The case supplies no actual management history, financial records, permits, guarantor statements or customer relationships.

The project adds capacity for 100 mature cows. The annual model assumes funding and PPE service on January 1, 2027, with average mature cows of 700 during freshening and 750 thereafter. Average production is per mature cow, including dry cows. Milk production, payroll, feed, hauling and debt service all respond to linked assumptions.

Uses	Amount	Sources	Amount
Barn and cow comfort	$1,000,000	New term debt	$1,500,000
Milking equipment	$400,000	External borrower equity	$500,000
Manure works	$250,000		
Soft costs and contingency	$100,000		
Expansion cattle	$250,000		
Total	$2,000,000	Total	$2,000,000

Transaction scope

Terms analyzed are 15-year full amortization, monthly payments in arrears and an initial illustrative floating rate of 7.25%. There is no balloon. The owner contribution is external new capital, not a transfer of cash already on the farm balance sheet. Its unborrowed source requires verification. No fees or operating reserve are funded in project uses. Maintenance capital remains a separate cash requirement.

Financial performance and balance sheet

All borrower figures are fictional. Dollar figures in the table are thousands. 2023-2025 are reconstructed historical statements, 2026 is an estimate and 2027-2029 are projections.

Metric	2023H	2024H	2025H	2026E	2027P	2028P	2029P
Farm revenue	3,711	4,258	4,217	4,037	4,602	5,137	5,284
EBITDA	444	991	857	589	778	969	979
Net farm income	(78)	460	317	39	(3)	183	188
Ending cash	896	1,072	1,164	1,005	696	673	649
Working capital	1,224	1,442	1,526	1,346	1,114	1,104	1,078
Current ratio	2.85x	3.14x	3.20x	2.89x	2.36x	2.28x	2.20x
Liabilities / assets	33.0%	31.4%	30.1%	29.5%	36.2%	35.1%	33.8%
Owner equity	7,417	7,647	7,744	7,579	7,856	7,804	7,742

Earnings and liquidity interpretation

2024 improves with a fictional realized milk price of $22.50/cwt, followed by $21.60 in 2025 and $20.40 in the 2026 estimate. Estimated 2026 net farm income is $39,483. Expansion-year EBITDA of $778,248 does not automatically translate into money available for principal or equipment replacement.

Base ending cash declines from $1,005,074 in 2026 to $648,929 in 2029. Working capital in 2027 is $1,114,374. Cash and working capital are different measures: current term principal belongs in current liabilities, while crop/feed inventories are not immediately available cash. Annual year-end balances do not demonstrate adequate seasonal borrowing availability.

Accounting and reconciliation

The statements use a managerial accrual basis with milk receivable days, feed inventory, prepaids, trade payable days and accrued operating costs. Land remains at carrying cost. The breeding herd uses a fixed carrying basis, with internally raised replacement costs expensed and no livestock revaluation gains. Homegrown feed has cash production costs rather than an additional market transfer expense. These simplifications require an accountant reconciliation in real underwriting.

PPE rolls from gross cost and accumulated depreciation. Depreciation includes a $300,000 opening annual charge, ten-year maintenance vintages and fifteen-year expansion PPE using a full-year January 1 convention. Equity rolls through net farm income, contributions and distributions. Cash rolls through operating, investing and financing flows. No automatic revolver plug conceals a deficit.

The case excludes deferred taxes, nonfarm income, government payments, indemnities, hedge gains, asset sales and appreciation. Owner income taxes are illustrative cash provisions, not a modeled tax return. Consequently, this is neither a GAAP statement set nor a tax return.

Repayment capacity and stress results

Ratios use distinct, disclosed definitions. Term coverage measures funds after living and owner income taxes. Business DSCR uses EBITDA before those distributions. Replacement cash DSCR also deducts working-capital growth and maintenance capex.

Base metric	2026E	2027P	2028P	2029P
Term debt coverage	1.09x	1.08x	1.43x	1.42x
Business DSCR	1.67x	1.51x	1.88x	1.89x
Replacement cash DSCR	0.55x	0.40x	0.96x	0.95x
Replacement margin	($168,750)	($158,359)	$7,268	($7,844)
Accounting cost / cwt	$22.99	$24.60	$24.24	$24.71
Accounting break-even / cwt	$20.17	$22.02	$21.61	$22.09
Cash survival milk price / cwt	$21.40	$23.80	$22.62	$23.13
Price for 1.25x term coverage	$20.70	$22.45	$22.05	$22.58

Downside cases

2027 scenario	Term coverage	Cash DSCR	2029 ending cash
Base	1.08x	0.40x	$648,929
Milk price -$2	0.34x	-0.26x	($512,917)
Feed cost +15%	0.59x	-0.04x	($131,648)
Production -5%	0.74x	0.09x	$96,931
Rate +200bp	1.03x	0.38x	$566,929
Combined	-0.45x	-0.93x	($1,858,365)

Combined stress applies milk -$2/cwt, feed unit cost +15%, production -5% and variable rates +200 basis points simultaneously for all projected years. Purchased feed responds to only 40% of the production change. Grown feed costs, payroll and other fixed costs persist. Fixed legacy loans retain their rates. Floating loan payments recast over remaining months, and LOC interest increases.

The term-coverage screen sizes 2027 new debt at approximately $890,117, holding operations, existing service and the original rate constant. This is a sizing ceiling for discussion, not approval. The borrower would need at least $609,883 more equity merely to address that test. A revised plan must also fund recurring replacement spending and survive a credible downside.

Collateral, conditions and monitoring

Collateral values and advance factors are illustrative assumptions. They require an independent appraisal, lien search and priority agreement. No actual lien or guarantor support is established by this case.

Closing collateral measure	Illustrative result
As-completed market pool	$15,950,000
Prior term liens	$2,647,948
Combined term liens / market pool	26.0%
Net lending value after prior liens	$6,170,038
Real estate combined mortgage LTV	34.3%

Priority and regulatory diligence

Analyze a second mortgage and first liens on offered breeding herd and expansion assets, subject to title, UCC, fixture and intercreditor review. Legacy chattels remain with existing lenders. The $200,000 LOC has separate receivable, crop and inventory collateral; those assets are excluded from term collateral support. Expansion real estate value is counted once. Full advance factors and lien deductions are in Collateral.

Cows plus on-site youngstock screen above 1,000 animal units. Verify existing WPDES coverage, compliance and expansion authorization with Wisconsin DNR. Require engineered manure/storage plans, nutrient management acreage, local approvals, processor capacity, labor and feed verification. The AU calculation is a screening estimate, not a regulatory determination. [S6]

Conditions for reconsideration

Obtain a smaller staged project or additional verified unborrowed equity and a 24-month monthly cash budget. Reconcile accrual accounts to tax returns, milk checks, debt confirmations and bank records. Confirm cost bids, a completion plan, an owner-funded overrun reserve and opening liquidity. Re-run all coverage and downside tests before a new decision. Longer amortization alone cannot cure an operating cash deficit.

Illustrative covenants and monitoring

For a supportable revised facility: annual TDCR at least 1.25x, working capital at least $500,000, current ratio at least 1.50x and liabilities/book assets no more than 50%. Restrict new debt, liens, unbudgeted capex and distributions. These are independent case assumptions. UW guidance describes TDCR above 1.75 as strong and below 1.25 as a concern. [S4-S5]

Review monthly milk, herd, feed and cash reports; quarterly balance sheets and covenant forecasts; annual accrual statements and tax reconciliation within 120 days. Escalate cash below $300,000, milk below cash survival price, TDCR below 1.25x, material past dues, permit notices or overruns above 10%. Visit during construction and agree corrective actions promptly.

Research basis

S1: USDA NASS, 2025 Wisconsin Agricultural Statistics, printed pp.30,34-37. S3: Kevin Bernhardt, UW Extension, Dairy Enterprise Budget, July 2025. S4-S5: UW Farm Finance Scorecard, 2014 edition, and Repayment and Replacement Capacity, undated. S6: Wisconsin DNR CAFO WPDES FAQ, undated. Full links, locators and additional NASS/ERS monitoring references are in the workbook Sources tab. Accessed October 24, 2026. Published benchmarks are distinct from fictional borrower and underwriting inputs.