## **Dairy Enterprise Budget**

by Kevin Bernhardt<sup>1</sup> July 2025

The enterprise budget focuses on a singular revenue- or cost-generating activity (enterprise) with the purpose of analyzing the enterprise's profit or cost impact within an operation. Like all budgets, enterprise budgets are part of the planning function of management, providing information for management decisions.

The enterprise budget has two major purposes. The first is that it enables a deeper analysis of potential efficiencies for a single enterprise. For example, can costs for labor, supplies, custom hire, or feed be reduced without impacting revenues, or at least relatively greater cost reduction versus revenue reduction. Or, in the long run, can fixed costs be reduced to gain advantages of economies of scale.

The second purpose is enabling the manager to choose between enterprises or at least to analyze whether the enterprise is covering all economic costs. The enterprise budget is an economic versus financial budget, the difference being that economic budgets include opportunity costs of owner labor, management, and equity capital.

## Note on Economic vs Financial Budgets

Economic budgets are ones that include the opportunity costs of owner labor, management, and equity capital. By including these costs, a positive return means that the enterprise revenues have covered all operating and fixed costs plus the full value of the owner's time, management ability, and investment. The temptation may be to not include opportunity costs, but doing so may lead to the wrong decision.

Consider the following example (Table 1) of two enterprises. In Enterprise 1, the owner has \$325,000 equity investment. The owner has valued her/his manual labor at \$40,000 and their intellectual management ability at \$40,000. Taken together, the owner believes that their next best alternative for their labor and management ability would be worth \$80,000. Likewise, if they invested their \$325,000 equity into an alternative investment that earned 5% return then they could earn \$16,250.

The opportunity costs of the owner's labor, management, and equity capital is real money not in their pocket because they decided to invest in this enterprise instead of the alternative. Said

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another way, this enterprise needs to earn \$96,250 (\$80,000 plus \$16,250) of profits to equal what they could have earned elsewhere.

While the economic profit shown for Enterprise 1 in Table 1 of \$6,750 does not seem large, remember that this is over and above what they could have earned in the next best alternative. In other words, this enterprise not only earned the \$96,250 that could have been earned in the next best alternative but also earned an additional \$6,250. Other enterprises might be even better, but at least management knows that they are getting a fair return for their labor, management, and equity capital with Enterprise 1.

Enterprise 2 has the same total revenues and opportunity costs as Enterprise 1; however, costs are different. Enterprise 2 can cover the opportunity cost of the owner's manual labor, but half of her/his management value, and none of the equity investment. In the case of Enterprise 2, the owner could give their labor, management, and equity to the next best alternative and earn \$96,250, but if they stay with the enterprise as estimated, they will only be earning \$60,000.

If the owner is choosing between Enterprises 1 or 2, the optimal choice would be Enterprise 1. If they are currently employing Enterprise 2, then they can analyze revenues and costs to see where improvements could be made.

**Table 1: Enterprise Budget Examples** 

	Enterprise 1	Enterprise 2
Total Revenues	\$685,000	\$685,000
Operating Expenses	\$550,000	\$575,000
Depreciation	\$32,000	\$50,000
Financial Profit	\$103,000	60,000
Opportunity Cost of Owner Labor	\$40,000	\$40,000
Opportunity Cost of Owner Management	\$40,000	\$40,000
Opportunity Cost on Owner Equity Capital	\$16,250	\$16,250
Economic Profit	\$6,750	(\$36,250)

The advantages of enterprise budgeting are that it forces the manager to think through expected productivity, prices, cull rates, rations, operating costs, machinery costs, and the value of their time and treasure. Enterprise budgets can also be used to analyze all enterprises in the farm business and determine where money is made or lost. A manager may find out that they are making a good return in their dairy, but not so much in the cash grain enterprise. If so, that may inform better decision-making in either changing practices to improve cash grain profitability or even eliminating that enterprise.

One of the dangers of enterprise budgets, or any planning tool, is the accuracy of the input information. If overly optimistic estimates of prices, production, and costs are used then not surprisingly, an overly inflated profit will result and visa-versa. Another challenge is how indepth to go. Budgets can be very simplified with default estimates, or they can be sophisticated with herculean efforts at getting the estimates just right. There is a balance between user friendliness, time, usefulness, and accuracy.

Agricultural universities, consultants, and others have "generic" enterprise budgets for a variety of enterprises. These budgets are a good place to start to learn about the type of revenues and expenses to include, format, etc.; however, they may not be a good match to your situation. It is important to keep in mind that the budgets express the thinking, assumptions, and timeperiod of the one who created them and may or may not be well suited for your specific situation. Nevertheless, they are useful resources.

The Dairy Enterprise Budget spreadsheet (Bernhardt, 2025) provides users ability to model their unique situation and enables users to compare situations. The budget includes flexibility through separate worksheets for estimating fixed costs, feed costs, mailbox prices, and sensitivity analysis. Comparison estimates are provided for some line items based on user entered prices and production metrics including prices, labor, culling rates, death loss, etc. The spreadsheet enables analysis based on either selling all heifers and buying back springer replacements or raising replacements.

A separate document (Dairy Enterprise Budget Instructions) provides instructions and further explanations of the spreadsheet tool.

## References

Ward, Barry, Dianne Shoemaker, Maurice Eastridge (2018). '2018 Dairy Cow Budget - Large Breed,' The Ohio State University Extension, 5/25/2018. (https://brown.osu.edu/programareas/agriculture-and-natural-resources/enterprise-budgets)

Bolton, Ken and Gary Frank (2009). "Cost of Production versus Cost of Production and there is, Cost of Production!" *Center for Dairy Profitability*, University of Wisconsin, Madison.

Cabrera, V.E., P. Hoffman, and R. Shaver (2018). "FeedVal v6.o predicted dairy feed prices and ranking for May 2018" (<u>Dairy Management: Tools (wisc.edu)</u>

Kay, Ronald D., William M. Edwards, and Patricia A. Duffy. Farm Management, 10<sup>th</sup> ed., McGraw Hill, 2024.

Tranel, Larry (2024) "Iowa Dairy Budgets," Dairy Team, Iowa State University Extension and Outreach, (<a href="https://www.extension.iastate.edu/dairyteam/content/iowa-dairy-budgets">www.extension.iastate.edu/dairyteam/content/iowa-dairy-budgets</a>).

Tonsor, Glynn, and Robin Reid (2022) 'KSU-Dairy Farm Management Guide Budgets,' version-12.17.2018, copyright 2018 AgManager.info, K-State Department of Agricultural Economics, 2023 KSU-Dairy Farm Management Guide Spreadsheet | AgManager.info

Milhollin, Ryan and Adauto Rocha Jr. (2023) 'Missouri Dairy Budget Tool,' University of Missouri Extension (MODairyBudget.xlsx (live.com)

'Missouri crop and livestock enterprise budgets,' Agricultural Business and Policy Extension, University of Missouri Extension, Missouri crop and livestock enterprise budgets | MU Extension