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Dairy Farm Income and Cash Flow Calculations

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Dairy producers need to know their cash flow to apply for loans or assess management changes. This NebGuide provides an interactive worksheet to calculate this information.

Dairy producers often need to know exactly what their income is on a per cow basis or at least a per herd basis. This requires gathering and processing herd, income, and expense information to present an accurate picture of an operation's income and cash flow. This NebGuide discusses possible uses for this information in assessing various production and management scenarios and provides an interactive worksheet to calculate an operation's income and cash flow with current or alternative costs.

Informed Decision-Making

An understanding of a dairy farm's cash flow and the factors affecting it would be beneficial when:

- **Applying for a loan to increase herd size or to lay the groundwork for an expansion.** This financial data can be used to present the expenses and income being generated by the dairy operation.
- **Planning to buy new equipment.** Information on the cash flow expected from a dairy enterprise can be used in support of securing an equipment loan for anything from a new front-end loader to a modernized milking parlor.
- **Contemplating the use of future contracting.** It would be nice to know how this marketing change would influence your income.
- **Considering how your income would change if you decreased the size of your herd.** When children leave the family farm, the first inclination is to reduce the herd size to reduce labor and feed costs and overall workload; however, the dairy may have a large overhead cost that may not be carried by a reduced herd size. It

may be better to retain the current herd size and hire some part-time labor.
- **Assessing how much you will need to expand your herd to generate increased income.** This is especially helpful when children return to the business and another family needs to be supported.
- **Evaluating what needs to be changed in the operation so the owner can retire yet still keep the dairy.** How much income will be needed to support your retirement plus some additional labor?
- **Evaluating whether your cash flow can support hiring an additional part-time or full-time worker.**
- **Figuring how much your average herd size needs to increase, feed costs decrease, or labor costs change to manage minor cash flow changes in your operation.**

Using the Interactive Dairy Farm Income Calculator

In order to help evaluate your management options in these and other situations, this publication features an interactive budget form on Page 2 to help you calculate net income and cash flow from your dairy enterprise. It allows you to input your current data or alternative numbers to test various scenarios and compare the results before making major management changes. The form also includes sample numbers for a typical farm that you can reference when inputting your data.

Remember, the advantage of using this program is that the figures can be changed at any time to get a new estimate of the total expenses (Line 33), net income (Line 34), and total net income (Line 39). The total net income takes into account all of the information entered in Lines 1-39, including the value-added categories. This information can then be used by you, your family, your banker, and others you work with to make more informed decisions.

To begin, you will need to know the information listed in Lines 1-12 for your operation. While default numbers are available, using as many of your expenses as possible in Lines 13-31 will give you a more accurate picture.

Projected Dairy Cash Flow Analysis

Input information from your dairy operation in the yellow boxes. The worksheet will calculate income and expenses. Information is not saved in this form so use the Print Button to capture the results.

		Update	*Default*		*Values Used in model*			
1	Price Per CWT							
2	CWT Per Cow							
3	Herd Size							
	Dairy Sample Data							
	INCOME	AMOUNT	PER CWT	PER COW	PERCENT			
4	Milk							
5	Total Income							
	EXPENSES							
	Feed					*Update*	*Default Values Per cow*	
6	Hay							
7	Silage							
8	DDG - Gluten							
9	SBM - Soybest							
10	Grain							
11	Other Feed - Supplements							
12	**Total Feed Expenses**							
	Herd Replacement Cost							
13	Depreciation - Dairy Cows							
14	Other Costs							
15	**Total Herd Replacement Cost**							
	Other Operating Expenses							
16	Interest and Rent							
17	Labor plus Benefits							
18	Depreciation – Other							
19	Milk Hauling							
20	Industry Assessments							
21	Supplies							
22	Repair and Maintenance							
23	Utilities							
24	Taxes and Licences							
25	Insurance							
26	Fuel and Oil							
27	Legal and Accounting							
28	Veterinary and Breeding							
29	Testing and Trimming							
30	Hauling Livestock							
31	Miscellaneous							
32	**Total Other Expenses**							
33	**Total Expenses**							
34	**NET INCOME**							
	Value Added							
35	Depreciation - Dairy Cows							
36	Labor plus Benefits							
37	Depreciation - Other							
38	Taxes and Licences							
39	**Total Net Income**							

Herd and Income Information (Lines 1-3)

Line 1 is the price you receive for your milk production in hundredweights (CWT). For example, 20,000 lb average production for a 100-head herd would be calculated as 20,000/100 = 200 CWT per cow (Line 2). The herd size you currently have also needs to be entered (Line 3). Once this data has been entered, the worksheet will show annual income.

Expenses (Lines 6-31)

Expenses are divided among three categories: feed (Lines 6-12), herd replacement cost (Lines 13-15), and other operation expenses (Lines 16-32). It's important that you input your feed costs in Lines 6-11. Feed costs account for over 60 percent of your total production costs. You need to have a good understanding of these costs to adequately estimate your herd income. If you don't input a number for any of the expenses (Lines 6-31), it will use the default number shown in the example.

Completing the Form

Step 1. Collect Data. Print out a copy of the form on Page 2 and fill in as many lines as you can using information specific to your operation. Some of these figures may not be easy to estimate, but do the best you can.

Step 2. Input Data. When you have collected all the information you need, enter it in the shaded areas of the form on Page 2. You will be able to see the data you entered as well as the calculations the computer program has done to estimate the information on the sheet.

The important figure is net income — the last line. If the figure does not seem reasonable, go back and check your figures and ensure you have entered the information correctly. The most common errors are misplaced decimal points — make certain they are in the right place. The CWT per cow also may be a problem — remember this is your herd average divided by 100.

Step 3. Print. After completing the form, print it out to capture the calculated information. This form doesn't allow you (or anyone else) to capture this data in a file. Any information you input is lost once you hit the Clear button so be sure to print your results. You can change any figure on the form and then generate and print a new set of results.

Resources

If you have any questions about using this calculator, please email Jeff Keown, UNL Extension Dairy Specialist, at *jkeown1@unl.edu*.

For more information on dairy production, visit the University of Nebraska–Lincoln Department of Animal Science Extension Dairy website at *http://animalscience. unl.edu/web/anisci/anscextensiondairycattle*) or the UNL Extension Publications website at *http://extension.unl.edu/ publications* can where you search by topic or browse more than 40 publications available under the Dairy category.

Note

Any information that you input into the form is private and is *not* captured for later use by you or anyone else. The user is the only person with access to this data. Neither the University of Nebraska–Lincoln nor UNL Extension will have access to any of your data.

This publication has been peer reviewed.

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