# **Positioning Your Dairy Business For Success**

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## Keeping Up With Rising Costs

The cost of living and the cost of farming keep going up However, the price dairy farmers received for their milk has been rather flat for the last few years, and it could be that way for another few years That will make it more difficult for families to "make ends meet"

How much money does your family need per year - - now and in the future? As you estimate this for your family, consider the rising cost of living and your retirement needs. See Table 1 Look at the projections for the year 2010, and for 2030! To maintain desirable future standards of living, farm profits should increase about 10% per year.

Table 1 The Rising Cost of Living

	% Change	Family Living Needs					
Year	in CPI	Low	Med	High			
1985	37	15,776	23,664	31,553			
1990	67	20,000	30,000	40,000			
1995	42	24,849	37,273	49,697			
2010	40	44,751	67,127	89,501			
2030	40	98,056	147,082	196,109			

Note CPI is the consumer price index

Knowing your family's needs can help you determine how much profit you need per cow and per cwt. of milk shipped The formulas below can help you calculate this for your farm

(Annual (Annual	needs needs	) )	dıvıded dıvıded	by (number by (cwt. mi	of cows lk shipped	) = ) =	margın margın	needed needed	per cow per cwt	
					- or -					
(Annual	needs	)	dıvıded	by (realistic	margin pe	r cow _	) = no	cows n	eeded _	
(Annual	needs	)	dıvıded	by (realistic	margin pe	r cwt _	_) = cw	rt milk :	needed	

You also need to prepare for retirement and you should start doing that at a very young age Don't depend on Social Security to support you in your retirement years Start early to fund your retirement plan and off-farm investments on a regular basis. Also, you may not want to rely on the sale of the farm as your retirement package, especially if you want your business to continue, because this could create major tax burdens and capital costs for the next generation

# Size and Production are Important

Let's assume your family needs \$30,000 profit per year from the farm Table 2 shows how much profit margin you will need per cow and per cwt of milk shipped, at various herds sizes and at various levels of production, to cover this \$30,000 family allowance - - or to cover any other \$30,000 farm expense item.

Table 2 Annual Cost of a \$30,000 Expense Item per Cow and per Cwt of Milk Shipped

No.	Per Cow	Cost	Cost per Cwt. of Milk Shipped at Various Productions								
Cows	<u>Per Yr</u>	15.000	<u>18.000</u>	21.000	24.000	27.000	30,000				
50	600	4.00	3 33	2.86	2 50	2 22	2.00				
100	300	2.00	1 67	1 43	1.25	1 1 1	1 00				
200	150	1 00	.83	71	63	56	50				
400	75	50	42	36	31	28	25				
800	36	.25	.20	.17	.15	13	12				
1600	18	13	10	09	08	07	06				
3200	9	06	05	04	04	03	03				

Let's assume we have 50 cows and ship 15,000 lb. of milk per cow We just spent \$30,000 That will cost us \$600 per cow per year, or \$4 00 per cwt of milk shipped We can cut the cost per cwt in half by doubling production, but the cost per cow remains the same Or, we can double herd size and cut both costs, cost per cow to \$300 and cost per cwt to \$2 00 No doubt, you'll find it easier to double herd size than to double production per cow. Size and production are important, and you need the skills to manage both. Increasing herd size generally requires more capital than increasing production and the cost of borrowing capital is discussed below

Doubling herd size could increase debt per cow by \$2,000 Table 3 shows us that a \$1,000 debt load per cow, financed at 8% for 10 years, will cost about \$146 per year to service For \$2,000 of debt per cow the cost doubles to about \$292 per cow, that about wipes out the \$300 reduction per cow in column 2 of Table 2 from doubling herd size Thus, we will have to expand at less cost or increase production along with the expansion, which may be difficult to do

Table 3 Annual Cost of Servicing \$1,000 of Debt per Cow and per Cwt of Milk

Length	Cost/Cow/Yr.		Cost	of an 8% Lo	of Milk Shipped		
of	at Two Rates		a	t Various Le	Production		
Loan	<u>8%</u>	<u>10%</u>	<u>15.000</u>	18.000	21.000	24.000	27.000
5 vr	243	255	1.62	1.35	1.16	1.01	0.90
10 yr	146	159	0 97	0 81	0 70	0 61	0 54
15 yr.	115	129	0 77	0 64	0.55	0 48	0 43

Another form of expansion is increasing production per cow, production per acre, and output per worker This may require less capital investment than a herd expansion However, production can only be pushed so far until you start reaching a point of diminishing returns As you push for more production, keep comparing incremental costs with incremental gains Know your abilities and limitations plus your likes and dislikes Do you have the ability to sustain high levels of production without experiencing negative setbacks at some future date<sup>2</sup> Generally speaking, an economical level of production appears to be around 19,000 lb of milk *shipped* per cow per year Each 1,000 lb of milk produced above this 19,000 lb level will net about \$50 additional profit per cow per year These figures of course, vary from farm to farm

#### Focus on Margin of Profit - Not Just Total Profit

Focus on margin of profit Herd size, production per cow and least-cost production are important only if they contribute to desirable profit margins. The larger the profit margin per cow or per cwt. of milk shipped, the less sensitive your business is to changes in prices and costs of production. Small margins of profits can quickly be wiped out with only the slightest change in prices and costs. In Table 4, both farms are making \$30,000 profit now, but the larger farm is doing it by shipping 3 times as much milk Because of the volume of milk shipped, the impact of a \$1 00 or \$2 00 drop in milk price is also 3 times as great (\$27,000 vs \$9,000) A \$1.00 drop nearly wipes out the large farm, but the smaller farm still has a \$21,000 margin Please note this is not to imply that smaller farms generally have a larger margin of profit

Table 4	Profit Margins vs	Size (	(assumes	18,000 lb	milk shippe	ed p	er cow)	

	50-C	ow Herd arger Marg	with gins	150-Cow Herd with Smaller Margins			
	per	per per per			per	per	
<u>Situation</u> Cwt. milk shipped	<u>Farm</u> 9,000	<u>Cow</u>	<u>Cwt</u>	<u>Farm</u> 27,000	Cow	<u>Cwt</u>	
Original profit margin \$1.00 drop in milk	<b>30,000</b> -9,000	600 <u>-180</u>	3 33 <u>-1 00</u>	<b>30,000</b> -27,000	200 <u>-180</u>	1 11 <u>-1.00</u>	
Profit after \$1 00 drop 2nd \$1 00 price drop Profit after 2nd drop	21,000 -9.000 12,000	420 <u>-180</u> 240	2 33 <u>-1 00</u> 1 33	<b>3,000</b> <u>-27,000</u> ( <b>24,000</b> )	20 <u>-180</u> (160)	0 11 <u>-1 00</u> (0 89)	

### Parameters and Characteristics of Successful Dairy Businesses

At a recent dairy meeting, Dr David Galton, of Cornell University, was optimistic about dairying in the Northeast A number of things are working in our favor, some of which are

Our farms are smaller, but more secure, because of greater profit margins per cow We can grow low-cost, high quality forage.

We have an available supply of low-cost water

We can sustain higher production levels with less environmental stress on cows We have more opportunity to manage downside risks because of greater diversity We are within easy reach of about half of the US consumer market

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