Adding Value in Beef and Dairy Operations

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Disclaimer: The financial tools in this spreadsheet were developed by Kohl Centre Agri-Food Finance Fellows as part of a series of agribusiness workshops on value-added enterprises and product differentiation in Virginia. It is intended to illustrate the use of financial planning tools- including partial budgets, enterprise budgets, and income statements- in strategic decision-making. The information provided is for educational purposes only, based on assumptions reflecting recent market conditions, and does not represent actual financial results or professional advice.

Financial Decision Making - 3 Main Aspects

Opportunity Costs - What are you giving up to get something

If Marginal Cost > Marginal Revenue - If it costs more than it's worth, don't do it

Just because you can pay for it now doesn’t mean you can afford it; don’t just focus on the purchase price, evaluate annual costs and cash flow too

Agricultural Industry Today:

- Narrowing Profit Margins on Agricultural Goods
- Rising Input Costs
- Consumer Demand for Locally Raised Foods
- Market Volatility

Concerns in the Industry

> MARKET INTEL | OCT 06, 2025

Declining Farm Economy Continues to Pressure Profitability

American Farmers Grapple with Unprecedented Cost-Price Squeeze, Threatening Food Security

By: MarketMinute

October 10, 2025 at 12:39 PM EDT

NEWS

RISING INPUT COSTS PUSH U.S. FARMERS TOWARD FINANCIAL CRISIS, AG LEADERS WARN

October 10, 2025 By Nicole Heslip Filed Under: News

Opportunities in the Industry

Value-Added Programs Help Calf Profits

Cattle Producers Unlock Added Value Through Verified Programs

9/18/2025 | 5:38 PM CDT

Local Food Sales Continue to Grow Through a Variety of Marketing Channels

by Stephen Martinez

10/4/2021

Finding | Processing & Marketing | Food Markets & Prices | Local Foods

State of the Dairy Industry: Milk-sales value reaches $20.4 billion as pricing climbs

Milk category sees year-over-year growth of 3.5%, while plant-based milks decline 3.3%.

By Barbara Harfmann

How do value added options improve an operation?

- More specialized product
- Typically higher prices than just a commodity
- More price control stability

Value Added

Value Added: a product whose value has been increased especially by special production, marketing, or processing

Beef on Dairy

Grass Fed Beef

A2 Genetics

Virginia Verified Beef

"Value added can come from a new market, new genetics, or new management."

Decision Making

How do I know if any of these opportunities would be profitable in my own specific operation?

Long and Short Term Opportunities

Long Term - Enterprise Budget

Specific/Short Term - Partial Budget

Partial Budgets Examples

- Would you spend $100,000 more in feed to get $80,000 more in milk per year?

No, you are reducing profits by $20,000 per year

- Would you spend $100,000 less on feed, but get $80,000 less in milk per year?

Yes, you are increasing profits by $20,000 per year

Partial Budget

- Focus only on what changes
- The “Good Side” vs. “Bad Side”
- Use consistent units
- Be conservative in your estimates

Partial Budget

- 4 Main Aspects of the Partial Budget

Increased Revenues	Decreased Revenues
Decreased Expenses	Increased Expenses

Partial Budget

"Good Side"	"Bad Side"
Added Revenues - $ generated by the change **Decreased Expenses** - Less $ being spent due to the change	**Decreased Revenues** - Less $ generated by the change **Increased Expenses** - More $ spent due to the change
Total Good Side	Total Bad Side
Change in Profit = Total Good Side - Total Bad Side	

Partial Budget

Assume you operate a Dairy Farm and are looking to increase milk yield and fat percent by changing feed rations to a more expensive ration.

Increase in Revenue due to milk fat percentage

Reduced Expenses of your old feed

Reduced Revenues of your previous milk sales

Increased Expenses with your new feed rations

Partial Budget - Increased Revenues

How will this change increase the revenues that are brought into the operation?

Positive Impacts		Negative Impacts
Increased Revenues:		**Reduced Revenues:**
Milk Sales	$1,000,000	
Reduced Expenses:		**Increased Expenses:**
Total Good Side:		**Total Bad Side:**

Net Change In Profit:

Partial Budget - Reduced Expenses

How will this change reduce the expenses that are brought into the operation?

Positive Impacts		Negative Impacts
Increased Revenues:		**Reduced Revenues:**
Milk Sales	$1,000,000	
Reduced Expenses:		**Increased Expenses:**
Old Feed Rations	$700,000	
Total Good Side:		**Total Bad Side:**

Net Change In Profit:

Partial Budget - Reduced Revenues

How will this change reduce the revenues that are brought into the operation?

Positive Impacts		Negative Impacts	
Increased Revenues:		**Reduced Revenues:**	
Milk Sales	$1,000,000	Previous Milk Sales	$850,000
Reduced Expenses:		**Increased Expenses:**	
Old Feed Rations	$700,000		
Total Good Side:		**Total Bad Side:**	

Net Change In Profit:

Partial Budget - Increased Expenses

How will this change increase the expenses that are brought into the operation?

Positive Impacts		Negative Impacts	
Increased Revenues:		**Reduced Revenues:**	
Milk Sales	$1,000,000	Previous Milk Sales	$850,000
Reduced Expenses:		**Increased Expenses:**	
Old Feed Rations	$700,000	New Feed Rations	$800,000
Total Good Side:	$1,700,000	**Total Bad Side:**	$1,650,000

Net Change In Profit: $50,000

Practical Example

Change in genetics to Beef on Dairy for a Dairy Farmer

Example 1

<u>Beef on Dairy</u>

- Dairy cows are bred with beef sires to produce calves with better carcass traits.
- Crossbred calves typically bring higher prices than pure dairy bull calves due to better muscling and feedlot performance.
- Often used on lower-genetic or non-replacement dairy cows, while top cows are bred for herd replacements with sexed semen.

Beef on Dairy

Assumptions:

- An extra $17 per cow is used for Genetics and Breeding
- Added Income Stream of Selling Beef Calves

Partial Budget Screenshot - Beef on Dairy

Positive Impacts		Negative Impacts	
Increased Revenues:		**Reduced Revenues:**	
New Raised Calf Sales	$379,290	Old Raised Calf Sales	$ 305,265
Reduced Expenses:		**Increased Expenses:**	
		Breeding and Genetics	$ 11,900
Total Good Side:	$ 379,290	**Total Bad Side:**	$ 317,165

Net Change In Profit: $ 62,125

Practical Example

Change to Grass Fed Beef for a Beef Producer

Example 2

Grass Fed Beef

- Cattle are raised on a forage-only diet (pasture and hay) with no grain supplementation from birth to weaning
- Typically produced in pasture-based systems with slower growth rates and leaner carcasses if finished as grass fed
- These cattle are worth more to feedlots because they have the potential to grow faster

Grass Fed Beef

Assumptions

- Revenue from Premium, additional $25 per cwt
- 2 Hours less of Labor per Cow compared to conventional
- Homegrown Feed Expenses increase
- Additional rented pasture per cow increased by 20%

Partial Budget Screenshot - Grass Fed

Positive Impacts		Negative Impacts	
Increased Revenues:		**Reduced Revenues:**	
New Raised Calf Sales	$205,175	Old Raised Calf Sales	$190,238
Reduced Expenses:		**Increased Expenses:**	
Labor	$5,000	Homegrown Feed Expenses	$ 11,542
Purchased Feed Expenses	$8,103	Hauling and Marketing Costs	$299
		Rent/Lease Land	$1,563
Total Good Side:	$ 218,278	**Total Bad Side:**	$ 203,641

Net Change In Profit: $14,637

Partial Budget - Conclusions

- Only focus on a change
- Good side and bad side
- Be conservative and use consistent units

Enterprise Budgets and Long Term Projections

Enterprise Budget

- Easier to use to look at costs on a per acre, per cow, or per bushel basis
- Shows revenues and costs broken down
- Makes it easier to know what your breakevens are
- Easier to see short and long run profitability
- Easy to change one factor and see how it affects the operation as a whole
- Can be useful when making five to seven year projections

Enterprise Budget

Gross Receipts (Revenues brought in)
Variable Costs (Costs that are determined by amount of production)
Annual Fixed Costs (Costs that stay the same no matter production level)
Projected Net Return (Gross Receipts - Variable Costs - Fixed Costs)

Let’s Look at Some Examples of Enterprise Budgets

Longer Term Value Added Opportunities

Virginia Verified Beef

A2 Genetics

Example 3

Blank Enterprise Budget

Beef Cows

Enterprise Budget - Blank

Virginia Cooperative Extension

PUBLICATION 446-048

Beef Cows Fall Calving - Hay Ration

0 COWS & BRED HEIFERS

90	% CONCEPTION RATE	90	% WEANED CALVES PER COW EXPOSED
25	COWS PER BULL	30	% of Heifers Weaned Kept as Replacements
10	% ANNUAL CULLING RATE	1.0	% ANNUAL COW DEATH LOSS

ITEM	HEAD		CWT	UNIT	PRICE	QUANTITY	TOTAL	Per cow
1. GROSS RECEIPTS								
Steers	0	@	6.50	Cwt	$318.40	0.00	$0	
Heifers	0	@	6.00	Cwt	$308.85	0.00	$0	
Cull Cows & Heifers	0	@	11.50	Cwt	$120.00	0.00	$0	
Cull Bull	0	@	17.00	Cwt	$140.00	0.00	$0	
2. TOTAL GROSS RECEIPTS						**$0.00 Per Cow**	**$0**	

Enterprise Budget - Blank

3. VARIABLE COSTS

	Feed Loss					
Corn Silage	5.0%		Ton	$45.00	0.00	$0
Alfalfa Hay, Bloom	5.0%		Ton	$225.00	0.00	$0
Mixed Hay, 2nd Cutting	5.0%		Ton	$185.00	0.00	$0
Grass Hay, Average	10.0%		Ton	$150.00	0.00	$0
Corn Grain	2.0%		Bushel	$6.75	0.00	$0
SBOM 48%	2.0%		Ton	$425.00	0.00	$0
Other Feed	5.0%		Ton	$0.00	0.00	$0
Grinding & Mixing			Cwt	$1.40	0.00	$0
Salt & Mineral	68.00	Lbs per Cow	Cwt	$30.00	0.00	$0
Vet & Medicine	35.00	$/Head	Head	$35.00	0	$0
Supplies			Head	$8.00	0	$0
Replacement Bull			Head	$5,000.00	0	$0
Stockpiled Pasture		Acres per Cow	Acre	$50.00	0	$0
Pasture	2.50	Acres per Cow	Acre	$25.00	0	$0
Haul Cull Cattle			Head	$7.50	0	$0

Enterprise Budget - Blank

Market Cull Cattle		$/Head	Head	$0.00		0	$0
Haul Calves			Head	$4.00		0	$0
Market Calves		$/Head	Head	$0.00		0	$0
Building & Fence Repairs			Head	$18.00		0	$0
Utilities			Head	$6.00		0	$0
Other,(insurance etc.)			Head	$8.00		0	$0
Fuel and Oil			Head	$25.00		0	$0
Machinery (Non-Crop)			Head	$20.00		0	$0
Labor	6	Hours per Cow	Hours	$20.00		0	$0
Operating Interest	6	Months	Dollars	7.50%	$	-	$0
4. TOTAL VARIABLE COSTS					**$0.00**	**Per Cow**	**$0.00**
5. ANNUAL FIXED COSTS (Depreciation, Interest, Property Taxes, Insurance, etc.)							$0.00
6. PROJECTED NET RETURN TO EQUITY, MANAGEMENT, & FAMILY LABOR					**$0.00**	**Per Cow**	**$0.00**

Example 4

Base Beef Farm Enterprise Budget

Example 4

Conventional Virginia Beef

- Calves are weaned around 7–9 months and often sold as feeder cattle for finishing.
- Grain-based feed (corn, soy) is used during finishing to speed up growth and improve marbling.
- Forage is used early on, but most finishing is done off-farm or out-of-state due to feed costs.

Beef Operation Production

- 125 Cows and Bred Heifers
- 25 Cows Per Bull
- 10% Annual Culling Rate
- 90% Conception Rate
- 90% Weaned Calves per Cow Exposed
- 30% of Heifers Weaned Kept as Replacement
- 1% Annual Death Loss

Enterprise Budget - Base Beef

Virginia
Cooperative
Extension

PUBLICATION 446-048

Beef Cows Fall Calving - Hay Ration

125 COWS & BRED HEIFERS

90 % CONCEPTION RATE
25 COWS PER BULL
10 % ANNUAL CULLING RATE

90 % WEANED CALVES PER COW EXPOSED
30 % of Heifers Weaned Kept as Replacements
1.0 % ANNUAL COW DEATH LOSS

ITEM	HEAD		CWT	UNIT	PRICE	QUANTITY	TOTAL		Per cow
1. GROSS RECEIPTS									
Steers	57	@	6.50	Cwt	$318.40	370.50	$117,967	$	943.74
Heifers	39	@	6.00	Cwt	$308.85	234.00	$72,270	$	578.16
Cull Cows & Heifers	12	@	11.50	Cwt	$120.00	138.00	$16,560	$	132.48
Cull Bull	2	@	17.00	Cwt	$140.00	34.00	$4,760	$	38.08
2. TOTAL GROSS RECEIPTS					**$1,692.46**	**Per Cow**	**$211,558**	$	1,692.46

Enterprise Budget - Base Beef

3. VARIABLE COSTS

	Feed Loss							
Corn Silage	5.0%		Ton	$45.00	386.27	$17,382	$	139.06
Alfalfa Hay, Bloom	5.0%		Ton	$225.00	0.00	$0	$	-
Mixed Hay, 2nd Cutting	5.0%		Ton	$185.00	0.00	$0	$	-
Grass Hay, Average	10.0%		Ton	$150.00	263.59	$39,538	$	316.31
Corn Grain	2.0%		Bushel	$6.75	1200.45	$8,103	$	64.82
SBOM 48%	2.0%		Ton	$425.00	0.00	$0	$	-
Other Feed	5.0%		Ton	$0.00	0.00	$0	$	-
Grinding & Mixing			Cwt	$1.40	0.00	$0	$	-
Salt & Mineral	68.00	Lbs per Cow	Cwt	$30.00	85.00	$2,550	$	20.40
Vet & Medicine	35.00	$/Head	Head	$26.77	125	$4,375	$	35.00
Supplies			Head	$8.00	125	$1,000	$	8.00
Replacement Bull			Head	$5,000.00	2	$10,000	$	80.00
Stockpiled Pasture		Acres per Cow	Acre	$51.00	0	$0	$	-
Pasture	2.50	Acres per Cow	Acre	$25.00	312.5	$7,813	$	62.50
Haul Cull Cattle			Head	$7.50	10	$75	$	0.60

Enterprise Budget - Base Beef

Market Cull Cattle		$/Head	Head	$34.60	10	$346	$	2.77
Haul Calves			Head	$4.00	96	$384	$	3.07
Market Calves		$/Head	Head	$43.13	96	$4,141	$	33.13
Building & Fence Repairs			Head	$18.00	125	$2,250	$	18.00
Utilities			Head	$6.00	125	$750	$	6.00
Other,(insurance etc.)			Head	$8.00	125	$1,000	$	8.00
Fuel and Oil			Head	$25.00	125	$3,125	$	25.00
Machinery (Non-Crop)			Head	$20.00	125	$2,500	$	20.00
Labor	6	Hours per Cow	Hours	$20.00	750	$15,000	$	120.00
Operating Interest	6	Months	Dollars	7.50%	$ 115,386	$4,327	$	34.62
4. TOTAL VARIABLE COSTS				**$997.27**	**Per Cow**	**$124,658.47**	$	997.27
5. ANNUAL FIXED COSTS (Depreciation, Interest, Property Taxes, Insurance, etc.)						$30,000.00	$	240.00
6. PROJECTED NET RETURN TO EQUITY, MANAGEMENT, & FAMILY LABOR				**$411.03**	**Per Cow**	**$51,379.16**	$	411.03

Example 5

Virginia Verified Beef Enterprise Budget

Example 5

Virginia Verified Beef

- Beef that is bred, born, raised, and processed entirely in Virginia.
- Certified by the Virginia Cattlemen's Association and VDACS.
- Labeled to help consumers identify local, fully traceable, Virginia beef.

Logo Comparison

BRED | BORN | RAISED | PROCESSED IN VIRGINIA

VIRGINIA

VERIFIED BEEF

PRODUCT OF USA

Virginia Verified Beef

Assumptions

- Increased revenue from change of Marketing strategy and less available pounds after processing
- An additional 3 hours per cow is factored into Labor Costs
- Purchased and Homegrown Feed Expenses increases for feeding 90 calves for 200 days
- Increased fixed costs for facilities for feeding cattle

Enterprise Budget - Virginia Verified Beef

Virginia
Cooperative
Extension

PUBLICATION 446-048

Beef Cows Fall Calving - Hay Ration

125 COWS & BRED HEIFERS

90 % CONCEPTION RATE

25 COWS PER BULL

10 % ANNUAL CULLING RATE

90 % WEANED CALVES PER COW EXPOSED

30 % of Heifers Weaned Kept as Replacements

4.0 % ANNUAL COW DEATH LOSS

ITEM	HEAD		CWT	UNIT	PRICE	QUANTITY	TOTAL		Per Cow
1. GROSS RECEIPTS									
Steers	57	@	5.28	Cwt	$725.00	300.96	$218,196	$	1,745.57
Heifers	39	@	5.02	Cwt	$725.00	195.62	$141,827	$	1,134.62
Cull Cows & Heifers	8	@	11.50	Cwt	$120.00	92.00	$11,040	$	88.32
Cull Bull	2	@	17.00	Cwt	$140.00	34.00	$4,760	$	38.08
2. TOTAL GROSS RECEIPTS						**$3,006.59 Per Cow**	**$375,823**	$	3,006.59

Enterprise Budget - Virginia Verified Beef

3. VARIABLE COSTS

	Feed Loss							
Corn Silage	5.0%		Ton	$45.00	677.37	$30,482	$	243.85
Alfalfa Hay, Bloom	5.0%		Ton	$225.00	59.33	$13,348	$	106.79
Mixed Hay, 2nd Cutting	5.0%		Ton	$185.00	59.33	$10,975	$	87.80
Grass Hay, Average	10.0%		Ton	$150.00	263.59	$39,538	$	316.31
Corn Grain	2.0%		Bushel	$6.75	4287.77	$28,942	$	231.54
SBOM 48%	2.0%		Ton	$425.00	0.00	$0	$	-
Other Feed	5.0%		Ton	$0.00	0.00	$0	$	-
Grinding & Mixing			Cwt	$1.40	0.00	$0	$	-
Salt & Mineral	68.00	Lbs per Cow	Cwt	$30.00	85.00	$2,550	$	20.40
Vet & Medicine	35.00	$/Head	Head	$26.77	125	$4,375	$	35.00
Supplies			Head	$8.00	125	$1,000	$	8.00
Replacement Bull			Head	$5,000.00	2	$10,000	$	80.00
Stockpiled Pasture		Acres per Cow	Acre	$51.00	0	$0	$	-
Pasture	2.50	Acres per Cow	Acre	$25.00	312.5	$7,813	$	62.50
Haul Cull Cattle			Head	$7.50	10	$75	$	0.60

Enterprise Budget - Virginia Verified Beef

Market Cull Cattle		$/Head	Head	$34.60	10	$346	$	2.77
Haul Calves			Head	$4.00	96	$384	$	3.07
Market Calves		$/Head	Head	$78.50	96	$7,536	$	60.29
Building & Fence Repairs			Head	$18.00	125	$2,250	$	18.00
Utilities			Head	$6.00	125	$750	$	6.00
Other,(insurance etc.)			Head	$8.00	125	$1,000	$	8.00
Fuel and Oil			Head	$25.00	125	$3,125	$	25.00
Machinery (Non-Crop)			Head	$20.00	125	$2,500	$	20.00
Labor	9	Hours per Cow	Hours	$20.00	1125	$22,500	$	180.00
Operating Interest	6	Months	Dollars	7.50%	$ 181,148	$6,793	$	54.34
4. TOTAL VARIABLE COSTS				**$1,570.26**	**Per Cow**	**$196,282**	$	1,570.26
5. ANNUAL FIXED COSTS (Depreciation, Interest, Property Taxes, Insurance, etc.)						$60,000	$	480.00
6. PROJECTED NET RETURN TO EQUITY, MANAGEMENT, & FAMILY LABOR				**$956.33**	**Per Cow**	**$119,541**	$	956.33

5 Year Projections - Virginia Verified Beef

Beef Farm 5-Year Income Statement

Accrual Basis

	Base Farm	Year 1	Year 2	Year 3	Year 4
Gross Income	$211,558	$255,383	$266,991	$293,691	$375,823
Growth (%)	NA	21%	5%	10%	28%
Cost of Goods Sold	$120,484	$165,166	$161,994	$166,446	$197,961
% of Sales	57%	65%	61%	57%	53%
Gross Profit	$91,074	$90,217	$104,997	$127,245	$177,863
% of Sales	43%	35%	39%	43%	47%
Operating Expenses (SG&A)	$30,000	$60,000	$60,000	$60,000	$60,000
% of Sales	14%	23%	22%	20%	16%
Operating Income (EBIT)	$61,074	$30,217	$44,997	$67,245	$117,863
Interest Expense	$4,327	$6,793	$6,793	$6,793	$6,793
Pretax Income	$56,747	$23,424	$38,204	$60,452	$111,070
Income Tax Expense	$19,861	$8,198	$13,372	$21,158	$38,874
Tax Rate	35%	35%	35%	35%	35%
Net Income	$36,885	$15,226	$24,833	$39,294	$72,195

Now Let’s move into Dairy Examples

Example 6

Base Dairy Farm Enterprise Budget

Example 6

<u>Conventional Virginia Dairy</u>

- Cows are milked 2-3 times a day in barns designed for comfort and hygiene.
- Feed consists of a mix of forages (pasture, hay, silage) plus grains and protein supplements.
- Milk production follows regulated standards, milk is cooled, transported in bulk tanks, and sent to plants processing.

Base Dairy

Assumptions

- 700 Cows
- 28,000 Lbs Production Per Cow
- 35% Cull Rate
- Price per CWT of $25.00 for milk

Base Dairy

Virginia Cooperative Extension

DAIRY COW - 28000 Lb Production - Corn Silage / Alfalfa Haylage Ration

700 COWS

28,000 LBS PRODUCTION PER COW | **94 % CONCEPTION RATE**

35 % COWS LEAVING HERD ANNUALLY | **4.0 % ANNUAL COW DEATH LOSS**

ITEM	HEAD			UNIT	PRICE			QUANTITY	TOTAL
1. GROSS RECEIPTS									
Milk				Cwt	$25.00			196,000	$4,900,000
Cull Cows & Heifers	217	@	13.00	Cwt	$65.00			2,821	$183,365
Bull Calves				Head	$200.00			329	$65,800
Dairy Heifers & Cows				Head	$1,700.00			33	$56,100
Cooperative Distributions				Head	$0.00			700	$0
Crop Sales									$0
OTHER									$0
2. TOTAL GROSS RECEIPTS						$7,436	Per Cow		**$5,205,265**

Base Dairy

3. VARIABLE COSTS

	Feed Loss				
Corn Silage, KP	8.0%	Ton	$35.00	9,637.67	$337,318
Alfalfa Haylage	8.0%	Ton	$75.00	2,305.80	$172,935
Alfalfa Hay	5.0%	Ton	$160.00	-	$0
Orchardgrass Hay	5.0%	Ton	$130.00	997.15	$129,630
SBOM 48%	2.0%	Ton	$375.00	720.08	$270,030
Corn Grain	2.0%	Bushel	$4.50	62,220.00	$279,990
Corn Distillers w/ SOL	2.0%	Ton	$300.00	435.54	$130,662
Roasted Soybeans	2.0%	Ton	$465.00	381.10	$177,212
Other Feed	2.0%	Ton	$0.00	-	$0
Other Feed	2.0%	Ton	$0.00	-	$0
Other Feed	2.0%	Ton	$0.00	-	$0
Fuel and Oil		Gallon	$3.25	19,174.34	$62,317
Pasture		Acre	$21.00	875.00	$18,375
Bedding		Ton	$5.00	35,000.00	$175,000
Minerals		Head	$47.50	700.00	$33,250
Milk Replacer		Cwt	$125.00	189.00	$23,625
Calf Grower		Cwt	$34.00	1,645.00	$55,930
Breeding		Head	$48.00	700.00	$33,600
Vet & Medicine		Head	$125.00	700.00	$87,500
Hoof Trimming		Head	$15.00	700.00	$10,500
Supplies		Head	$165.00	700.00	$115,500
DHIA		Head	$20.99	700.00	$14,693

Base Dairy

Hauling Milk			Cwt	$1.20		196,000.00	$235,200	
Assessment/Advertising/Etc.			Cwt	$0.26		196,000.00	$51,450	
Market Cull Cattle		$/Head	Head	$21.90		217.00	$4,752	
Building & Fence Repairs			Head	$47.24		700.00	$33,065	
Machinery (Non-Crop)			Head	$60.00		700.00	$42,000	
Utilities			Head	$95.00		700.00	$66,500	
Labor (FTE's)	18	39 Cows per	FTE	$26,912.50		17.00	$457,513	
Farm Insurance			Head	$46.32		700.00	$32,424	
Custom Hire			Head	$90.03		700.00	$63,021	
Farm/Land Rent			Head	$78.44		700.00	$54,908	
Taxes			Head	$57.00		700.00	$39,900	
Other Expenses			Head	$150.00		700.00	$105,000	
Operating Interest	12	Months	Dollars	7.50%		$3,167,482	$237,561	$ 339.37
4. TOTAL VARIABLE COSTS (Excludes Interest)					$5,073 Per Cow		**$3,551,359**	
5. ANNUAL FIXED COSTS							$1,560,000	
6. PROJECTED NET RETURN TO EQUITY, MANAGEMENT, & OPERATOR LABOR					$134 Per Cow		**$93,906**	

Developed by Virginia Cooperative Extension Farm Business Management Staff

Example 7

A2 Genetics Dairy Enterprise Budget

Example 7

A2 Genetics

- **Genetic Variation:** A2 genetics mean cows produce only the A2 type of beta-casein protein in their milk, unlike the more common A1 type.
- **Selective Breeding:** Breeds like Jersey and Guernsey naturally have more A2 milk; Holsteins can be bred for A2 genetics.
- **Digestibility & Allergy:** Some people have difficulty digesting A1 protein or experience mild allergies, making A2 milk a potential alternative.

A2 Genetics

Assumptions

- Increased revenue from change of Marketing strategy and higher value of milk at $26.00 per CWT
- Additional $12 per cow used in breeding per year

A2 Genetics

TODAY

What is A2 milk? Everything you need to know

MINNESOTA DAIRY FARMERS INTERESTED IN A2 MILK

April 3, 2025 By Mark Dorenkamp   Filed Under: Dairy, Dairy, Minnesota, News

Is A2 milk the future of dairy?

By Rachel Wagoner - September 13, 2019

A2 Milk Demand Broadens Markets for Dairy Producers

Many consumers purchase A2 fluid milk and cheese because they've found them to be more easily digested. Explore the science, promotion and logistics involved in marketing this product.

By LeAnne Philips - Professional Dairy Producers of Wisconsin

A2 Genetics

Virginia Cooperative Extension

DAIRY COW - 28000 Lb Production - Corn Silage / Alfalfa Haylage Ration

700 COWS

28,000 LBS PRODUCTION PER COW — **94 % CONCEPTION RATE**

35 % COWS LEAVING HERD ANNUALLY — **4.0 % ANNUAL COW DEATH LOSS**

ITEM	HEAD			UNIT	PRICE		QUANTITY	TOTAL
1. GROSS RECEIPTS								
Milk				Cwt	$26.00		196,000	$5,096,000
Cull Cows & Heifers	217	@	13.00	Cwt	$65.00		2,821	$183,365
Bull Calves				Head	$200.00		329	$65,800
Dairy Heifers & Cows				Head	$1,700.00		33	$56,100
Cooperative Distributions				Head	$0.00		700	$0
Crop Sales								$0
OTHER								$0
2. TOTAL GROSS RECEIPTS						$7,716 Per Cow		**$5,401,265**

A2 Genetics

3. VARIABLE COSTS

	Feed Loss	Unit	Price	Quantity	Total	
Corn Silage, KP	8.0%	Ton	$35.00	9,637.67	$337,318	________
Alfalfa Haylage	8.0%	Ton	$75.00	2,305.80	$172,935	________
Alfalfa Hay	5.0%	Ton	$160.00	-	$0	________
Orchardgrass Hay	5.0%	Ton	$130.00	997.15	$129,630	________
SBOM 48%	2.0%	Ton	$375.00	720.08	$270,030	________
Corn Grain	2.0%	Bushel	$4.50	62,220.00	$279,990	________
Corn Distillers w/ SOL.	2.0%	Ton	$300.00	435.54	$130,662	________
Roasted Soybeans	2.0%	Ton	$465.00	381.10	$177,212	________
Other Feed	2.0%	Ton	$0.00	-	$0	________
Other Feed	2.0%	Ton	$0.00	-	$0	________
Other Feed	2.0%	Ton	$0.00	-	$0	________
Fuel and Oil		Gallon	$3.25	19,174.34	$62,317	
Pasture		Acre	$21.00	875.00	$18,375	________
Bedding		Ton	$5.00	35,000.00	$175,000	
Minerals		Head	$47.50	700.00	$33,250	________
Milk Replacer		Cwt	$125.00	189.00	$23,625	________
Calf Grower		Cwt	$34.00	1,645.00	$55,930	________
Breeding		Head	$60.00	700.00	$42,000	________
Vet & Medicine		Head	$125.00	700.00	$87,500	________
Hoof Trimming		Head	$15.00	700.00	$10,500	________
Supplies		Head	$165.00	700.00	$115,500	________
DHIA		Head	$20.99	700.00	$14,693	________

A2 Genetics

Hauling Milk			Cwt	$1.20		196,000.00	$235,200	
Assessment/Advertising/Etc.			Cwt	$0.26		196,000.00	$51,450	
Market Cull Cattle		$/Head	Head	$21.90		217.00	$4,752	
Building & Fence Repairs			Head	$47.24		700.00	$33,065	
Machinery (Non-Crop)			Head	$60.00		700.00	$42,000	
Utilities			Head	$95.00		700.00	$66,500	
Labor (FTE's)	18	39 Cows per	FTE	$26,912.50		17.00	$457,513	
Farm Insurance			Head	$46.32		700.00	$32,424	
Custom Hire			Head	$90.03		700.00	$63,021	
Farm/Land Rent			Head	$78.44		700.00	$54,908	
Taxes			Head	$57.00		700.00	$39,900	
Other Expenses			Head	$150.00		700.00	$105,000	
Operating Interest	12	Months	Dollars	7.50%		$3,175,882	$238,191	$ 340.27
4. TOTAL VARIABLE COSTS (Excludes Interest)					$5,086 Per Cow		**$3,560,389**	
5. ANNUAL FIXED COSTS							$1,560,000	
6. PROJECTED NET RETURN TO EQUITY, MANAGEMENT, & OPERATOR LABOR					$401 Per Cow		**$280,876**	

Developed by Virginia Cooperative Extension Farm Business Management Staff

5 Year Projections - A2 Genetics

Dairy Farm 5 Year Income Statement

Accrual Basis

	Base Farm	Year 1	Year 2	Year 3	Year 4
Gross Income	$5,205,265	$5,205,265	$5,303,265	$5,352,265	$5,401,265
Growth (%)	NA	0%	2%	1%	1%
Cost of Goods Sold	$3,273,898	$3,282,298	$3,344,094	$3,374,993	$3,405,891
% of Sales	63%	63%	63%	63%	63%
Gross Profit	$1,931,367	$1,922,967	$1,959,171	$1,977,272	$1,995,374
% of Sales	37%	37%	37%	37%	37%
Operating Expenses (SG&A)	$1,599,900	$1,599,900	$1,599,900	$1,599,900	$1,599,900
% of Sales	31%	31%	30%	30%	30%
Operating Income (EBIT)	$331,467	$323,067	$359,271	$377,372	$395,474
Interest Expense	$237,561	$238,191	$238,191	$238,191	$238,191
Pretax Income	$93,906	$84,876	$121,079	$139,181	$157,283
Income Tax Expense	$32,867	$29,706	$42,378	$48,713	$55,049
Tax Rate	35%	35%	35%	35%	35%
Net Income	$61,039	$55,169	$78,702	$90,468	$102,234

Conclusion

- Make smart financial decisions by budgeting your choices
- Use projections to protect your farm from price sensitivity
- All decisions do not have to be purely financial; stress, labor availability, and resources should be considered as well

Thank you! Here are the links to the resources and a survey we would really appreciate you filling out!

Presentation Materials

Survey