

Organic Dairy Farm Management Decisions & Cost of Production



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Nate Severy

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Cornwall

- Herd size & breed
- Grass or grain
- Acres
- Location
- Milking system
- Housing type
- Milk buyer
- # years certified organic or grass-fed



Jennifer & Morgan Churchill Wonder Why Farm Cabot

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What We Will Discuss Today

- Milk shipped (cwts produced to average costs/cwt)
- Feed (pasture vs stored feed, grazing system, amount of grain, feed quality, rations across animal groups, purchased vs raised forages)
- Labor efficiency (custom hire, infrastructure, alternative milking schedule)
- Records (production and financial, how to keep/use to improve management)

Organic vs Grass-fed 2019 - 2020

	Organic	Grass-fed
Herd size	79	64
Predominant breed	Crossbred	Crossbred
Fat content (%)	4.13%	4.37%
Fat sold (lbs/cow/year)	620	374
Milk sold (lbs/cow/year)	15,474	8,610
Milk sold (cwts)	11,772	5,403
Milk sold (cwt eq.)	12,881	6,283
Acres	308	350
Acres per cow	3.83	5.52

These are averages. Looking at the farms separated into low, medium and high cost of production gives us a lot more information.

Milk sold per farm and per cow

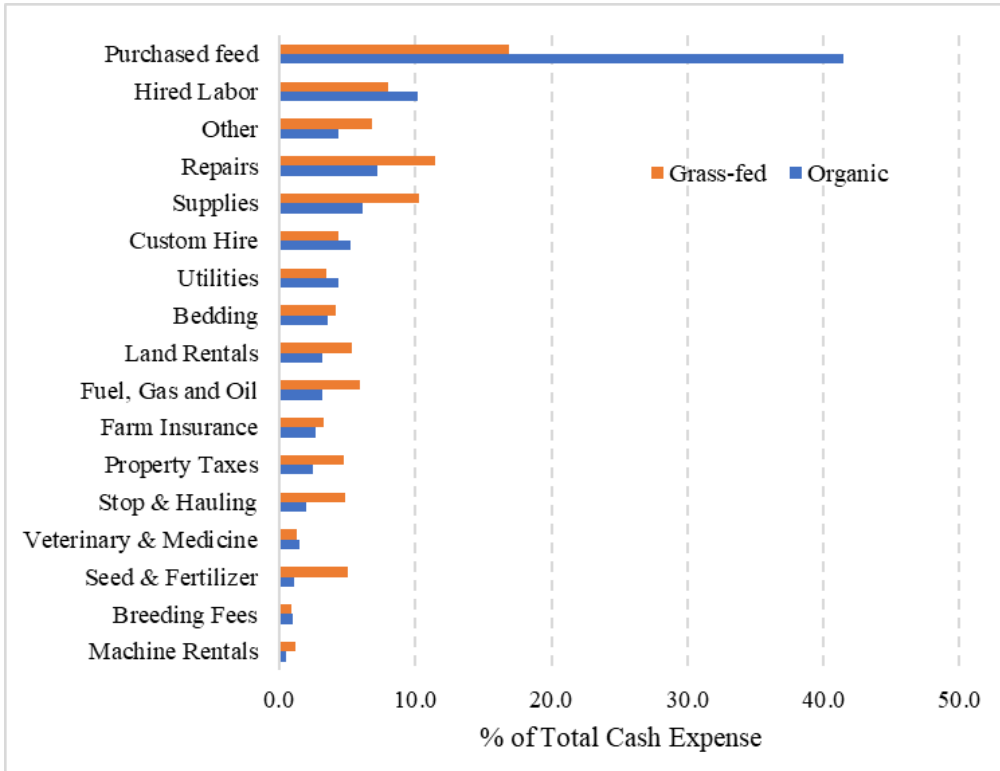
Milk Sold	Organic			
	Average	Low cost	Medium cost	High cost
Total milk sold (CWTs)	11,829	18,501	9,955	7,565
Total milk sold (CWT eq.)	12,950	20,359	11,048	8,054
Milk per cow (lbs/cow)	15,663	17,266	14,377	15,382

Milk Sold	Grass-fed			
	Average	Low cost	Medium cost	High cost
Total milk sold (CWTs)	5,403	7,454	4,352	3,636
Total milk sold (CWT eq.)	6,283	8,766	5,058	4,094
Milk per cow (lbs/cow)	8,610	10,005	8,188	7,092

Management Decisions ~ Milk Volume

- Breeding strategy – timing, method
- Culling strategy
- Replacements: How many heifers do you raise? How much milk do you feed to calves instead of selling? Do you buy any animals in?
- Dumping high SCC milk?
- Grouping/feeding pre fresh/fresh/first calf heifers to increase peak & milk/cow

Differences in Top 5 Cash Expenses



Organic

Purchased feed- 41%

Hired Labor- 10.2%

Repairs- 7.2%

Supplies- 6.1%

Custom Hire- 5.2%

Grass-fed

Purchased feed- 16.9%

Repairs- 11.4%

Supplies- 10.3%

Hired Labor- 8.0%

Other – 6.8%

Feed Costs - Organic

Feed Costs (% of Cash Expense)	Organic			
	Average	Low cost	Medium cost	High cost
Purchased Feed	41.5%	36.2%	47.6%	43.0%
Purchased Forages	12.7%	10.3%	18.5%	10.0%
Purchased Grain/Energy	34.7%	30.2%	38.4%	37.7%
Purchased Minerals	----	----	----	----
Total milk sold (CWT eq.)	12,950	20,359	11,048	8,054
Herd size	79	111	75	54
Cash Expense (\$/farm)	\$339,451	\$512,557	\$294,640	\$225,412

ORGANIC	Average	Minimum	Maximum
Acreage per Farm	341	75	899
Acres per Cow	4.3	1.0	8.0

Feed Costs- Grass-fed

Feed Costs (% of Cash Expense)	Grass-fed			
	Average	Low cost	Medium cost	High cost
Purchased Feed	16.9%	21.0%	13.5%	14.8%
Purchased Forages	12.8%	18.2%	10.6%	7.5%
Purchased Grain/Energy	2.0%	0.4%	1.0%	5.2%
Purchased Minerals	2.1%	2.3%	1.9%	2.1%
Total milk sold (CWT eq.)	6,283	8,766	5,058	4,094
Herd size	64	79	54	51
Cash Expense (\$/farm)	\$161,211	\$207,406	\$130,490	\$129,049

GRASSFED	Average	Minimum	Maximum
Acreage per Farm	350	69	850
Acres per Cow	5.5	1.71	10.34

MANAGEMENT DECISIONS ~ WHAT TO FEED

- What mix or types of feed?
- What are your rations across animal groups and how do you change them across seasons?
- How do you maintain the quality of your stored feed?
- How long is your grazing season?
- What is the DMI from pasture during the grazing season vs stored forages?
- Purchasing feed, making feed, or a combination?
- Make forage yourself or custom hire?
- Can you maintain quality if you take on more acres?

Labor efficiency

Labor efficiency	Organic			
	Average	Low cost	Medium cost	High cost
Full Time Equivalents (FTEs)	2.82	2.8	2.8	2.7
Cows per FTE	28.5	40	28	22
Milk Sold per FTE (CWT eq.)	4,407	7,002	3,882	3,328
Labor earnings per hour	\$8.67	\$15.76	\$6.66	\$3.41
Unpaid labor hours	5,642	6,399	5,050	5,406

Labor efficiency	Grass-fed			
	Average	Low cost	Medium cost	High cost
Full Time Equivalents (FTEs)	2.4	2.1	2.5	2.5
Cows per FTE	29	37	23	22
Milk Sold per FTE (CWT eq.)	2,770	3,732	2,309	1,777
Labor earnings per hour	\$6.23	\$12.63	\$3.53	\$0.08
Unpaid labor hours	6,291	5,317	6,989	6,915

MANAGEMENT DECISIONS ~ LABOR EFFICIENCY

- How do you make decisions about what you custom hire?
- Robots? Alternative milking schedules?
- What labor efficiency improvements have you implemented in the last 5 years?
- What are some areas of labor efficiency improvements that you have identified as needing?
- What is the cost to implement?

RECORDS AND DECISION MAKING

- How do you keep your farm financial records & herd records?
- How do you use those to make decisions during the year?
- How do you use records to plan for capital investments?





Questions?