

#7: 200 Cow, Mattress Freestall, Slatted Floor, Mechanical Vent. System

Description: This entry level 200-cow dairy farm is designed to withstand the heat and humidity of Southeast Missouri by using rows of fans to mechanically ventilate the cow housing facility. Cows are housed in a low ceiling freestall barn that is continually cooled by mist and banks of fans. Cow mattresses are used in the stalls, over slatted floors. Manure drops through the slatted floor into a deep concrete holding area to be agitated, pumped and applied as slurry prior to planting. Cows are milked in a low-cost, labor-efficient parabone swing parlor with 12 milker units operated by one person.

Key Components (see appendix for further description of terms)

Land Base	10 acres	Investment/Cow	\$7,718
Cow Housing	Mattress Freestall Barn	Yearly Revenue/Cow (5 yr. Avg.)	\$3,436
Milking Center	Double 12 Parabone Swing	Yearly Gross Revenue (5 yr. Avg.)	\$687,276
Ventilation	Mechanical	Total Investment	\$1,543,629
Manure Handling System	Slatted floor over manure storage	Return on Assets (Yr. 5)	3.3%

Picture Examples



Mechanical Ventilation Freestall Barn



Parabone Swing Milking Parlor



Feed Alley in Mechanical Ventilation Barn



Mattress Freestall System

Input Summary

Scenario:	200 Cow Confinement, Mattress Freestall, Slatted Floor, Mechanical Vent.				
Production	Your farm		Cow Flow	Year 1	Year 2
Herd size	200	head	Beginning herd	200	200
Calving interval	13.5	months	Cows entering the herd:		
Average days dry for the herd	60	days	Purchases	72	72
Percent cows in milk	85%	percent	Farm-raised replacements	0	0
Annual cull rate	28%	percent	Cows leaving the herd		
Annual death loss	8%	percent	Culls	56	56
Milk per cow per day (year 1)	70.0	lbs.	Sold	0	0
365 day RHA (year 1)	21,817	RHA	Dead	16	16
			Ending herd size	200	200
Expenses	Your farm		Income	Market value	Cull value
Daily feed cost (milking group)(avg)	\$3.40	cow/day	Milking and dry cows	\$2,000	\$500
Daily feed cost(dry cow group)(avg)	\$1.73	cow/day	12-24 months		\$500
Youngstock diets			6-12 months		\$500
0-2 months	\$0.00	cow/day	2-6 months		\$500
2-6 months	\$0.00	cow/day			
6-12 months	\$0.00	cow/day		Your farm	
12-24 months	\$0.00	cow/day	Milk price	\$14.69	\$/cwt
Labor costs (year 1)			Yearly coop dividend	\$0.00	\$/cwt
Hourly labor	\$33,280	dollars	Bull calf selling price	\$100	\$/head
Salaried labor	\$35,000	dollars	Heifer calf selling price	\$400	\$/head
Annual benefits	\$5,223	dollars	Crop grain sales	\$0	dollars
Total labor	\$73,503	dollars	Government payments	\$0	dollars
Seed expenses	\$0	dollars	Other farm income	\$0	dollars
Fertilizer and chemicals	\$0	dollars	Balance Sheet	Beginning balance for:	
Marketing costs				January 1	
Federal assessment	\$0.00	\$ per cwt.	Current assets:		
Advertising	\$0.15	\$ per cwt.	Cash	\$10,000	dollars
Coop Fee	\$0.10	\$ per cwt.	Commodities for sale and feed	\$10,000	dollars
Hauling	\$0.60	\$ per cwt.	Feeder livestock and cull cows	\$0	dollars
Annual per cow costs			Supplies and prepaid expenses	\$10,000	dollars
DHI testing	\$16	\$ per cow	Investment in growing crops	\$0	dollars
Artificial insemination	\$45	\$ per cow	Accounts receivable and other	\$0	dollars
Veterinarian, hoof trimming & BST	\$133	\$ per cow	Other current assets	\$0	dollars
Medicine	\$63	\$ per cow	Non-current assets:		
Farm supplies and bedding	\$68	\$ per cow	Farm and equipment:		
Fuel & oil	\$20	\$ per cow	Land	\$28,000	dollars
Utilities	\$60	\$ per cow	Non-farm real estate	\$0	dollars
Annual costs			Buildings	\$876,754	dollars
Non-dairy farm supplies	\$1,200	dollars	Equipment	\$151,200	dollars
Non-dairy fuel and oil	\$1,200	dollars	Autos & trucks	\$0	dollars
Non-dairy utilities	\$0	dollars	Other assets		dollars
Building repairs	\$5,000	dollars	Investment in coops	\$0	dollars
Machinery and equipment repairs	\$5,000	dollars	Contract receivables	\$0	dollars
Rent	\$0	dollars	Other	\$0	dollars
Taxes (real estate and p.p.)	\$1,500	dollars		Beginning balance for:	
Farm insurance	\$2,000	dollars	Current liabilities:	January 1	
Legal & professional fees	\$1,000	dollars	Accounts payable, feed dealers	\$0	dollars
Custom hire	\$20,000	dollars	Accounts payable, trade	\$0	dollars
Car and truck costs	\$2,400	dollars	Accrued interest	\$0	dollars
Contract heifer rearing	\$0	dollars	Payroll taxes & wages	\$0	dollars
Other expense	\$0	dollars	Operating note	\$0	dollars
			Estimated current portion of debt	\$0	dollars
			Other current liabilities	\$0	dollars
			Long-term Debt:		
			Bank note	\$0	dollars
			Real estate note	\$0	dollars
			Other long-term debt	\$0	dollars

SE Missouri Dairy

Dairy Enterprise Budget (5-year Avg.)

200 Cow Confinement, Mattress Freestall, Slatted Floor, Mechanical Vent.

	Herd	Per Cow	Per CWT	Percent
INCOME FROM OPERATIONS:				
Milk sales	\$643,721	\$3,219	\$14.69	93.7%
Sales of youngstock & calves	\$43,556	\$218	\$0.99	6.3%
Other farm income	\$0	\$0	\$0.00	0.0%
Patronage dividend	\$0	\$0	\$0.00	0.0%
Total Gross Receipts	\$687,276	\$3,436	\$15.68	100.0%
OPERATING EXPENSES:				
Feed:				
Feedstuffs	\$245,253	\$1,226	\$5.60	37.0%
Less feed for heifers	\$0	\$0	\$0.00	0.0%
Total feed	\$245,253	\$1,226	\$5.60	37.0%
Herd replacement costs:				
Depreciation--dairy cows	\$65,118	\$326	\$1.49	9.8%
Loss on sale of cows	\$36,589	\$183	\$0.83	5.5%
Total herd replacement costs	\$101,706	\$509	\$2.32	15.4%
Other operating expenses:				
Labor (includes benefits & SS)	\$77,272	\$386	\$1.76	11.7%
Marketing 1/	\$37,247	\$186	\$0.85	5.6%
DHI testing	\$3,200	\$16	\$0.07	0.5%
Artificial insemination	\$9,000	\$45	\$0.21	1.4%
Veterinary, hoof trimming & BST	\$26,600	\$133	\$0.61	4.0%
Medicine	\$12,600	\$63	\$0.29	1.9%
Supplies and bedding	\$14,297	\$71	\$0.33	2.2%
Fuel & oil	\$4,000	\$20	\$0.09	0.6%
Utilities	\$12,615	\$63	\$0.29	1.9%
Repairs--Buildings	\$5,000	\$25	\$0.11	0.8%
Repairs--Machinery & equipment	\$5,000	\$25	\$0.11	0.8%
Rent	\$0	\$0	\$0.00	0.0%
Farm taxes (R.E. & personal prop)	\$1,577	\$8	\$0.04	0.2%
Farm insurance	\$2,103	\$11	\$0.05	0.3%
Legal & professional fees	\$1,051	\$5	\$0.02	0.2%
Custom hire	\$21,025	\$105	\$0.48	3.2%
Car and truck costs	\$2,400	\$12	\$0.05	0.4%
Other	\$0	\$0	\$0.00	0.0%
Interest	\$0	\$0	\$0.00	0.0%
Depreciation	\$80,050	\$400	\$1.83	12.1%
Less other expenses for raising heifers	\$0	\$0	\$0.00	0.0%
Total other operating expenses	\$315,038	\$1,575	\$7.19	47.6%
TOTAL OPERATING EXPENSES	\$661,997	\$3,310	\$15.11	100.0%
NET INCOME FROM OPERATIONS	\$25,279	\$126	\$0.58	
1/ Includes milk hauling, state and federal promotion, coop/marketing fees, and the cost of marketing beef.				