

#9: 3,000 Cow, Mattress Freestall, Slatted Floor, Mechanical Vent. System

Description: This 3,000-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. 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 three times per day in a double 44 rapid exit parallel parlor operated twenty-four hours per day. This dairy would be classified as a CAFO, which might limit where it could be built.

Key Components (see appendix for further description of terms)

Land Base	80 acres	Investment/Cow	\$6,864
Cow Housing	Mattress Freestall Barn	Yearly Revenue/Cow (5 yr. Avg.)	\$3,524
Milking Center	Double 44 Parallel with automation	Yearly Gross Revenue (5 yr. Avg.)	\$10,572,065
Ventilation	Mechanical	Total Investment	\$20,591,161
Manure Handling System	Slatted floor over manure storage	Return on Assets (Yr. 5)	7.8%

Picture Examples



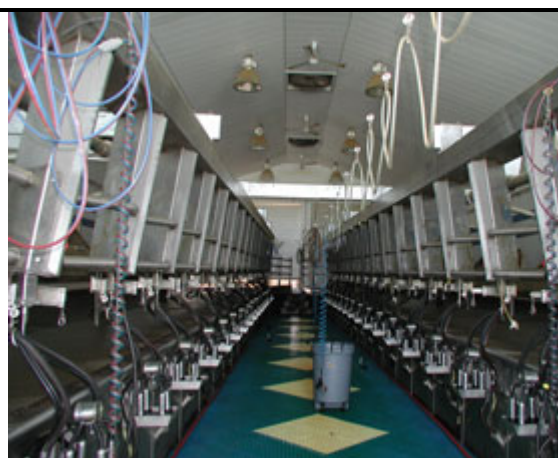
Mechanical Ventilation Freestall Barn



Mattress Freestall System



Feed Alley in Mechanical Ventilation Barn



Parallel Milking Parlor

Input Summary					
Scenario:	3,000 Cow Confinement, Mattress Freestall, Slatted Floor, Mechanical Vent.				
Production	Your farm		Cow Flow	Year 1	Year 2
Herd size	3,000	head	Beginning herd	3,000	3,000
Calving interval	13.5	months	Cows entering the herd:		
Average days dry for the herd	60	days	Purchases	1,080	1,080
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	840	840
Milk per cow per day (year 1)	70.0	lbs.	Sold	0	0
365 day RHA (year 1)	21,817	RHA	Dead	240	240
			Ending herd size	3,000	3,000
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		Your farm	
6-12 months	\$0.00	cow/day	Milk price	\$15.09	\$/cwt
12-24 months	\$0.00	cow/day	Yearly coop dividend	\$0.00	\$/cwt
Labor costs (year 1)			Bull calf selling price	\$100	\$/head
Hourly labor	\$698,880	dollars	Heifer calf selling price	\$400	\$/head
Salaried labor	\$200,000	dollars	Crop grain sales	\$0	dollars
Annual benefits	\$68,764	dollars	Government payments	\$0	dollars
Total labor	\$967,644	dollars	Other farm income	\$0	dollars
Seed expenses	\$0	dollars	Balance Sheet	Beginning balance for:	
Fertilizer and chemicals	\$0	dollars		January 1	
Marketing costs			Current assets:		
Federal assessment	\$0.00	\$ per cwt.	Cash	\$150,000	dollars
Advertising	\$0.15	\$ per cwt.	Commodities for sale and feed	\$150,000	dollars
Coop Fee	\$0.10	\$ per cwt.	Feeder livestock and cull cows	\$0	dollars
Hauling	\$0.60	\$ per cwt.	Supplies and prepaid expenses	\$150,000	dollars
Annual per cow costs			Investment in growing crops	\$0	dollars
DHI testing	\$16	\$ per cow	Accounts receivable and other	\$0	dollars
Artificial insemination	\$45	\$ per cow	Other current assets	\$0	dollars
Veterinarian, hoof trimming & BST	\$133	\$ per cow	Non-current assets:		
Medicine	\$63	\$ per cow	Farm and equipment:		
Farm supplies and bedding	\$68	\$ per cow	Land	\$224,000	dollars
Fuel & oil	\$20	\$ per cow	Non-farm real estate	\$0	dollars
Utilities	\$60	\$ per cow	Buildings	\$12,242,571	dollars
Annual costs			Equipment	\$900,333	dollars
Non-dairy farm supplies	\$10,300	dollars	Autos & trucks	\$0	dollars
Non-dairy fuel and oil	\$10,300	dollars	Other assets		dollars
Non-dairy utilities	\$0	dollars	Investment in coops	\$0	dollars
Building repairs	\$45,000	dollars	Contract receivables	\$0	dollars
Machinery and equipment repairs	\$45,000	dollars	Other	\$0	dollars
Rent	\$0	dollars		Beginning balance for:	
Taxes (real estate and p.p.)	\$45,000	dollars	Current liabilities:	January 1	
Farm insurance	\$45,000	dollars	Accounts payable, feed dealers	\$0	dollars
Legal & professional fees	\$20,000	dollars	Accounts payable, trade	\$0	dollars
Custom hire	\$300,000	dollars	Accrued interest	\$0	dollars
Car and truck costs	\$10,500	dollars	Payroll taxes & wages	\$0	dollars
Contract heifer rearing	\$0	dollars	Operating note	\$0	dollars
Other expense	\$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.)

3,000 Cow Confinement, Mattress Freestall, Slatted Floor, Mechanical Vent.

	Herd	Per Cow	Per CWT	Percent
INCOME FROM OPERATIONS:				
Milk sales	\$9,918,732	\$3,306	\$15.09	93.8%
Sales of youngstock & calves	\$653,333	\$218	\$0.99	6.2%
Other farm income	\$0	\$0	\$0.00	0.0%
Patronage dividend	\$0	\$0	\$0.00	0.0%
Total Gross Receipts	\$10,572,065	\$3,524	\$16.08	100.0%
OPERATING EXPENSES:				
Feed:				
Feedstuffs	\$3,678,791	\$1,226	\$5.60	38.8%
Less feed for heifers	\$0	\$0	\$0.00	0.0%
Total feed	\$3,678,791	\$1,226	\$5.60	38.8%
Herd replacement costs:				
Depreciation--dairy cows	\$976,765	\$326	\$1.49	10.3%
Loss on sale of cows	\$548,824	\$183	\$0.83	5.8%
Total herd replacement costs	\$1,525,589	\$509	\$2.32	16.1%
Other operating expenses:				
Labor (includes benefits & SS)	\$1,017,251	\$339	\$1.55	10.7%
Marketing 1/	\$558,709	\$186	\$0.85	5.9%
DHI testing	\$48,000	\$16	\$0.07	0.5%
Artificial insemination	\$135,000	\$45	\$0.21	1.4%
Veterinary, hoof trimming & BST	\$399,000	\$133	\$0.61	4.2%
Medicine	\$189,000	\$63	\$0.29	2.0%
Supplies and bedding	\$214,458	\$71	\$0.33	2.3%
Fuel & oil	\$60,000	\$20	\$0.09	0.6%
Utilities	\$189,228	\$63	\$0.29	2.0%
Repairs--Buildings	\$45,000	\$15	\$0.07	0.5%
Repairs--Machinery & equipment	\$45,000	\$15	\$0.07	0.5%
Rent	\$0	\$0	\$0.00	0.0%
Farm taxes (R.E. & personal prop)	\$47,307	\$16	\$0.07	0.5%
Farm insurance	\$47,307	\$16	\$0.07	0.5%
Legal & professional fees	\$21,025	\$7	\$0.03	0.2%
Custom hire	\$315,380	\$105	\$0.48	3.3%
Car and truck costs	\$10,500	\$4	\$0.02	0.1%
Other	\$0	\$0	\$0.00	0.0%
Interest	\$0	\$0	\$0.00	0.0%
Depreciation	\$944,790	\$315	\$1.44	10.0%
Less other expenses for raising heifers	\$0	\$0	\$0.00	0.0%
Total other operating expenses	\$4,286,956	\$1,429	\$6.52	45.2%
TOTAL OPERATING EXPENSES	\$9,491,335	\$3,164	\$14.44	100.0%
NET INCOME FROM OPERATIONS	\$1,080,730	\$360	\$1.64	
1/ Includes milk hauling, state and federal promotion, coop/marketing fees, and the cost of marketing beef.				