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Cost of Raising Replacement Dairy Heifers

Farm Name	Example Farm*
Owner's Name	
Street	
City	
State	
Zip Code	
Business Phone	
Cell Phone	
E-Mail	
County	

*This example derived direct costs from Heinrichs A.J., et al. 2013 with overhead costs measured by 2013 Penn State Extension Cash Flow Summary data

Person Submitting Form	
E-Mail of Person Submitting	
Phone of Person Submitting Form	

Primary Breed	
Farm Nutritionist	
Nutrition Company	
E-Mail Address to Submit Data	
Farm Number (Internal Use)	
Electrical Power Source	

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Revised 2013: H. Weeks and T. Beck

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Cost of Raising Heifers - Inputs

Heifer Descriptions	Name each group of animals (as housed and fed):	# Head	Days in Group	Average Daily Gain	Cumulative Age Days	Cumulative Age Months
Group 1	Birth Till Weaning	29	57	1.8	57	1.9
Group 2	Weaning til 6 Mos	29	123	2.1	180	5.9
Group 3	6 mos to breeding	29	264	1.9	444	14.6
Group 4	Bred to Pre-Fresh	86	316	1.7	760	25.0
Group 5					760	25.0
Group 6					760	25.0
Group 7					760	25.0
	Total Heifers:	**172.5**			**Age at Calving:**	**25.0**

Average Calf Birthweight	90	
Total Heifer Labor Hours per Year	1524	12.17%
Total Cows	228	
Milking Cows	198	
Hours per Cow / Year	55	
Total Cow Labor Hours per Year	12517	

	Dairy Total	Annual Heifer Total	Annual Per Heifer
Total Heifer Feed Cost:		**$ 109,055.54**	**$ 632.21**
Dairy Direct Expenses:			
Breeding & Registration	$ 15,020.69	$ 4,078.73	$ 23.64
Veterinary & Medicine	$ 24,806.90	$ 1,436.58	$ 8.33
bST			
Supplies	$ 35,958.62	$ 4,377.22	$ 25.38
DHIA			
Contract Heifer Raising			
Dairy Custom Hire	$ 10,924.14	$ 1,329.79	$ 7.71
Milk Hauling			
Milk Marketing			
Bedding	$ 16,386.21	$ 7,486.11	$ 43.40
Total Direct Expenses		**$ 18,708.43**	**$ 108.45**
Related Operating Expenses (Overhead):			
Fuel and oil	$ 30,268.97	$ 3,684.62	$ 21.36
Repairs	$ 29,358.62	$ 3,573.81	$ 20.72
Hired labor, withholding, ins.		$ 16,760.87	$ 97.16
Land rent	$ 19,117.24	$ 2,327.13	$ 13.49
Machinery leases	$ 6,144.83	$ 748.01	$ 4.34
Building leases	$ 35,503.45	$ 4,321.81	$ 25.05
Real estate taxes	$ 14,793.10	$ 1,800.75	$ 10.44
Farm insurance	$ 7,737.93	$ 941.93	$ 5.46
Utilities	$ 20,482.76	$ 2,493.35	$ 14.45
Risk mgt.& advertizing	$ 5,006.90	$ 609.49	$ 3.53
Dues and professional fees	$ 2,958.62	$ 360.15	$ 2.09
Miscellaneous	$ 12,289.66	$ 1,496.01	$ 8.67
Total Related Operating Expenses		**$ 39,117.93**	**$ 226.77**
Family Living/Owner Draw	$ 71,234.48	$ 8,671.33	$ 50.27
Loan Payments (Principal + Interest)	$ 119,255.17	$ 14,516.85	$ 84.16
Total per Heifer per Year			**$ 1,101.86**
Total per Heifer Birth to Calving			**$ 2,295.53**

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Cost of Raising Heifers - Summary

Heifer Cost Summary

	Birth Till Weaning	Weaning til 6 Mos	6 mos to breeding	Bred to Pre-Fresh	0	0	0	Totals
Head	28.5	29	29	86	0	0	0	172.5
Days	57	123	264	316	0	0	0	760.41667
% Days in Group	7%	16%	35%	42%	0%	0%	0%	

Heifer Direct Expenses									% of Total
Feed	$ 125.20	$ 171.34	$ 474.42	$ 546.14	$ -	$ -	$ -	**$ 1,317.10**	57.38%
Labor	$ 58.40	$ 34.16	$ 56.86	$ 53.00	$ -	$ -	$ -	**$ 202.43**	8.82%
Breeding	$ -	$ -	$ 49.26	$ -	$ -	$ -	$ -	**$ 49.26**	2.15%
Vet & Med	$ 6.25	$ 2.45	$ 4.10	$ 4.55	$ -	$ -	$ -	**$ 17.35**	0.76%
Bedding	$ 11.50	$ 20.99	$ 32.19	$ 25.73	$ -	$ -	$ -	**$ 90.41**	3.94%
Other Dairy Expenses									
Other Dairy Direct Expenses	$ 5.17	$ 11.15	$ 23.93	$ 28.68	$ -	$ -	$ -	**$ 68.93**	3.00%
Total Overhead Expenses	$ 20.24	$ 43.68	$ 93.74	$ 112.35	$ -	$ -	$ -	**$ 270.01**	11.76%
Owner Draw	$ 7.85	$ 16.94	$ 36.36	$ 43.58	$ -	$ -	$ -	**$ 104.73**	4.56%
Principal & Interest	$ 13.14	$ 28.36	$ 60.87	$ 72.95	$ -	$ -	$ -	**$ 175.32**	7.64%

Totals	**$ 247.75**	**$ 329.07**	**$ 831.73**	**$ 886.98**	**$ -**	**$ -**	**$ -**	**$ 2,295.53**
Cumulative Cost	$ 247.75	$ 576.82	$ 1,408.55	$ 2,295.53	$ 2,295.53	$ 2,295.53	$ 2,295.53	
Total Cost Per Day	**$ 4.35**	**$ 2.68**	**$ 3.15**	**$ 2.80**				**$ 3.02**
Average Daily Gain (lbs)	1.8	2.1	1.9	1.7	0	0	0	1.1
Total Gain in Period (lbs)	103	258	502	538	0	0	0	1490
Cost per lb of gain	**$ 2.41**	**$ 1.27**	**$ 1.66**	**$ 1.65**				**$ 2.82**

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Cost of Raising Heifers - Feed

Total Feed Birth to Calving

					Birth Till Weaning		Weaning til 6 Mos		6 mos to breeding		Bred to Pre-Fresh		0		0		0			
					Days	57	Days	123	Days	264	Days	316	Days	0	Days	0	Days	0	Total Days	760.416667
	Cost per unit	Unit	Unit wt	Cost per lb.	lb/d	Cost	lb/d	Cost	lb/d	Cost	lb/d	Cost	lb/d	Cost	lb/d	Cost	lb/d	Cost	Total lbs fed	Total Ing. Cost
Colostrum	$ -	Lb.	1	$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	0	$ -
Milk Replacer	$ 59.95	Bag	50	$ 1.20	1.5	$ 102.51		$ -		$ -		$ -		$ -		$ -		$ -	85.5	$ 102.51
Calf Starter	$ 398	Ton	2000	$ 0.20	2	$ 22.69	7	$ 171.34	4.2	$ 220.65		$ -		$ -		$ -		$ -	2083.8	$ 414.68
		Lb.	1	$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	0	$ -
		Ton	2000	$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	0	$ -
		Ton	2000	$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	0	$ -
Grass Hay	$ 89	Ton	2000	$ 0.04		$ -		$ -	2.5	$ 29.37	13	$ 183.05		$ -		$ -		$ -	4773.42	$ 212.42
Corn Silage	$ 25.00	Ton	2000	$ 0.01		$ -		$ -	12	$ 39.60	36	$ 141.60		$ -		$ -		$ -	14495.7	$ 181.20
		Ton	2000	$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	0	$ -
		Ton	2000	$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	0	$ -
Pasture	$ 1.00	Lb.	1	$ 1.00		$ -		$ -	0.7	$ 184.80	0.7	$ 221.49		$ -		$ -		$ -	406.292	$ 406.29
		Lb.	1	$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	0	$ -
		Lb.	1	$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	0	$ -
Feed Cost Per Head Per Group						$ 125.20		$ 171.34		$ 474.42		$ 546.14		$ -		$ -		$ -	21845	$ 1,317.10

								Average
Feed Cost Per Head Per Day	**$ 2.20**	**$ 1.39**	**$ 1.80**	**$ 1.73**				**$ 1.73**
Feed Cost Per Lb of Gain	$ 1.22	$ 0.66	$ 0.95	$ 1.02				$ 0.96
Average Daily Gain (lbs/day)	1.8	2.1	1.9	1.7	0	0	0	**1.07**
Cumulative Weight Per Head	193	451	953	1490				
Total Gain in Group (lbs)	**102.6**	**258.3**	**501.6**	**537.9**			**1490**	

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Cost of Raising Heifers - Labor

Labor Birth to Calving

		Birth Till Weaning			Weaning til 6 Mos			6 mos to breeding			Bred to Pre-Fresh			0			0			0				
		Head	28.5		Head	29		Head	29		Head	86		Head	0		Head	0		Head	0			
		Days	57		Days	123		Days	264		Days	316		Days	0		Days	0		Days	0		Total Days	760.41667
	Rate / hr	Time (mins)	Freq. (days)	Cost/ head	Time (mins)	Freq. (days)	Cost/ head	Time (mins)	Freq. (days)	Cost/ head	Time (mins)	Freq. (days)	Cost/ head	Time (mins)	Freq. (days)	Cost/ head	Time (mins)	Freq. (days)	Cost/ head	Time (mins)	Freq. (days)	Cost/ head		Total Cost /Hd
Feed/Bed Calves	$ 11.00	120	1	$ 44.00																				$ 44.00
Clean Calf Pen	$ 11.00	70	2	$ 12.83																				$ 12.83
Mix and Feed Heifers	$ 11.00				30	1	$ 23.33																	$ 23.33
Mix/Feed Heifers	$ 11.00							30	1	$ 50.07														$ 50.07
Mix/Feed PreFresh	$ 11.00										60	1	$ 40.47											$ 40.47
Bed Heifers	$ 11.00				15	2	$ 5.83	10	5	$ 3.34	35	7	$ 3.37											$ 12.54
Clean Barns	$ 11.00				30	7	$ 3.33	15	10	$ 2.50	35	7	$ 3.37											$ 9.21
Management	$ 11.00	30	7	$ 1.57	15	7	$ 1.67	4	7	$ 0.95	60	7	$ 5.78											$ 9.97
																								$ -
																								$ -
																								$ -
																								$ -
																								$ -
Labor Cost Per Head Per Group				$ 58.40			$ 34.16			$ 56.86			$ 53.00			$ -			$ -			$ -		$ 202.43

								Total
Time (hours) per Head Birth to Calving	5.31	3.11	5.17	4.82	0.00	0.00	0.00	18.40
Total Heifer Labor Hours per Year								1524
								Average
Cost per Head per Day	$ 1.02	$ 0.28	$ 0.22	$ 0.17				$ 0.27
Average Daily Gain (lbs/day)	1.8	2.1	1.9	1.7	0	0	0	1.07
Cost per Head per Lb Gain	$ 0.57	$ 0.13	$ 0.11	$ 0.10				$ 0.23

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Cost of Raising Heifers - Vet & Breeding

Vet Med & Breeding Costs Birth to Calving	Birth Till Weaning			Weaning til 6 Mos			6 mos to breeding			Bred to Pre-Fresh			0			0			0					
	Head	28.5		Head	29		Head	29		Head	86		Head	0		Head	0		Head	0				
	Days	57		Days	123		Days	264		Days	316		Days	0		Days	0		Days	0		Total Days		760.417
Vet & Medicine	Item	Cost/ item	Total Cost	Item	Cost/ item	Total Cost	Item	Cost/ item	Total Cost	Item	Cost/ item	Total Cost	Item	Cost/ item	Total Cost	Item	Cost/ item	Total Cost	Item	Cost/ item	Total Cost	Item	Cost/ item	Total Cost	Total Cost /Hd
Heifer IBR, PI3, BRSV			$ -			$ -			$ -	2	1.275	$ 2.55			$ -			$ -			$ -			$ -	$ 2.55
Preg. Check			$ -			$ -			$ -	1	2	$ 2.00			$ -			$ -			$ -			$ -	$ 2.00
Scours Treatment	7.125	0.877	$ 6.25			$ -			$ -			$ -			$ -			$ -			$ -			$ -	$ 6.25
			$ -	1	2.45	$ 2.45	1	4.1	$ 4.10			$ -			$ -			$ -			$ -			$ -	$ 6.55
			$ -			$ -			$ -			$ -			$ -			$ -			$ -			$ -	$ -
			$ -			$ -			$ -			$ -			$ -			$ -			$ -			$ -	$ -
			$ -			$ -			$ -			$ -			$ -			$ -			$ -			$ -	$ -
			$ -			$ -			$ -			$ -			$ -			$ -			$ -			$ -	$ -
Breeding	Item	Cost/ item	Total Cost	Item	Cost/ item	Total Cost	Item	Cost/ item	Total Cost	Item	Cost/ item	Total Cost	Item	Cost/ item	Total Cost	Item	Cost/ item	Total Cost	Item	Cost/ item	Total Cost	Item	Cost/ item	Total Cost	Total Cost /Hd
Semen & Breeding			$ -			$ -	1.5	32.84	$ 49.26			$ -			$ -			$ -			$ -			$ -	$ 49.26
Synchronization			$ -			$ -			$ -			$ -			$ -			$ -			$ -			$ -	$ -

Vet & Med Cost Per Head	$ 6.25	$ 2.45	$ 4.10	$ 4.55	$ -	$ -	$ -	**$ 17.35**
Breeding Cost Per Head	$ -	$ -	$ 49.26	$ -	$ -	$ -	$ -	**$ 49.26**

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Cost of Raising Heifers - Bedding

Total Bedding Birth to Calving

					Birth Till Weaning		Weaning til 6 Mos		6 mos to breeding		Bred to Pre-Fresh		0		0		0			
					Head	28.5	Head	29	Head	29	Head	86	Head	0	Head	0	Head	0		
					Days	57	Days	123	Days	264	Days	316	Days	0	Days	0	Days	0	Days	760.4167
	Cost per unit			Cost per lb.	Amt/ group	Freq. (days)	Amt/ group	Freq. (days)	Amt/ group	Freq. (days)	Amt/ group	Freq. (days)	Amt/ group	Freq. (days)	Amt/ group	Freq. (days)	Amt/ group	Freq. (days)	Total lbs. / hd	Cost / head
Sawdust	$ 0.25	Lb.	1	$ 0.25	23	1													46	$ 11.50
Straw	$90.00	Ton	2000	$ 0.05			550	5	550	7	1150	7							1754	$ 78.91
		Lb.	1	$ -															0	$ -
Total Cost Per Head						$11.50		$ 20.99		$ 32.19		$ 25.73		$ -		$ -		$ -	1800	$ 90.41

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