The Economics of Wet Calves by Jennifer Bentley and Larry Tranel, ISUEO Dairy Field Specialists

Do you know how much it's costing you to raise your calves daily? Or are you thinking about having someone else raise them and don't know how much to pay them? The cost to raise a heifer from birth to freshening continues to climb and now ranges from around \$2,100 up to about \$2,800 per head, using estimated 2024 costs for feed and labor. Although birth to weaning costs are not the highest cost area in the heifer raising program (15% of total cost, Karszes, Cornell 2020), getting calves off to a good start should not be compromised. Of that 15%, nearly 75% of the cost is associated with labor, management, and feed.

An estimated cost of raising wet calves is shown in the table below. For a calf on a liquid feed and calf starter diet for 8 weeks and 2 weeks only on dry feed during the weaning stage a total cost of \$374.73 is incurred. Liquid feed can be calculated using pasteurized waste milk or milk replacer (Table 2). This example uses a milk replacer being fed at an average rate of 1.8 pounds/day at a cost of \$1.44/lb. for a total of \$145.15/calf or \$2.59/day. This cost is higher than in previous wet calf analysis to consider higher planes of nutrition and amounts of milk being consumed with the use of automatic calf feeders as these calves will consume 2-3 pounds of milk replacer daily and the higher cost of milk replacer based on a UW study. Calf starter is determined by price per pound and total pounds of starter consumed in 10 weeks. Total cost for calf starter in this example is \$52.50/calf or \$.94/day. Note that calves will have minimal intake in the first couple weeks of life but should be consuming a minimum of 4-5 pounds of starter at the end of 10 weeks. Variables that can be input by user are shown in yellow.

Dairy Calf Paicing Cost (wot calvos)

Bedding, Veterinary, Death Loss, Interest, Paid Labor, and Paid Management are variables that need to be calculated by user. In this example, an interest rate of 4.5% annually; a paid labor rate of \$14.50 per hour; and paid management rate of \$22 per hour was used. A typical range for feeding/cleaning labor is 5-10 minutes per calf per day in individual housing and about a minute per calf per day in an automatic calf feeding system. Paid Management includes labor and records management and can be factored in at approximately ½ hour/day, depending on herd size and feeding system used.

Table 1. Calf Raising Costs

Fixed costs include calf housing and equipment. Costs used to determine housing include homemade calf hutch at \$200; purchased calf hutch at \$400; greenhouse barn at \$10 per square foot; and/or post-frame calf barn at \$15.50 per square foot. Investment values are fully depreciated on new facilities. Opportunity costs of labor need to be considered relative to paid labor costs. Notice there is

Dairy Calf Raising Cost (wet caives) Freestall Operation III Operation				
*values taken from Farm Data (feed) and UW Extension (all other values)				
	Farm Data		Research - 20	17 UW Data*
	Value/Calf	Value/Day	Individual	Auto-Feeder
Variable Costs				
Liquid Feed	\$145.15	\$2.59	\$1.60	\$2.08
Calf Starter	\$52.50	\$0.94	\$0.75	\$0.84
Bedding	\$8.68	\$0.16	\$0.20	\$0.24
Veterinary	\$21.99	\$0.39	\$0.17	\$0.29
Death Loss	\$7.02	\$0.13	\$0.15	\$0.13
Interest	\$3.96	\$0.07	\$0.07	\$0.07
Paid Labor	\$62.33	\$1.11	\$1.39	\$1.01
Paid Management	\$4.91	\$0.09	\$0.18	\$0.17
Total Variable Cost	\$306.54	\$5.47	\$4.51	\$4.83
Fixed Costs				
Calf Housing	\$16.32	\$0.29	\$0.39	\$0.80
Calf Equipment	\$6.87	\$0.12	\$0.19	\$0.33
Total Fixed Costs	\$23.19	\$0.41	\$0.58	\$1.13
Allocated (Fixed + Variable)	\$329.73	\$5.89	\$5.09	\$5.97
Opportunity Cost of Labor	\$45.00	\$0.80	\$0.75	\$0.38
Total Costs	\$374.73	\$6.69	\$5.84	\$6.35
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a highly significant difference between custom growers and farm operators on total labor cost.

Farm data is input on the far right of the table, while 2017 UW research data is noted on far right to include individual feeding or auto feeding averages. The majority of the owner farms and custom grower farms utilized pasteurized waste milk (valued at \$5/cwt), lowering their liquid feed cost considerably.

The study can be found at: https://eauclaire.extension.wisc.edu/files/2018/05/ICPA-2017-AFS-Whitepaper.pdf