Calf Raising Profit Starts with Colostrum Management

The Study: 2,016 calves were evaluated for passive transfer immunoglobulins (IgG). They were followed through their first four weeks of life.

The Results:

	Serum Ig Level Low Ig Calvesℵ	**Serum Ig Level High Ig Calvesℵ**	**Difference between Low & High Group**
Number of Calves	353	1663	
Percent of Calves	17.5	82.5	
4-Week Wt. Gain	22.7 pounds	24.9 pounds	**+2.2 pounds**
Feed Conversion	2.4 lb.feed/lb.gain	2 lb.feed/lb.gain	**-0.4 lb.feed/lb.gain**
Scour Days	6.3 days	4.9 days	**-1.4 days**
Mortality	21 percent	9 percent	**-12 percent**

(Adapted from Table 3 from Fowler)

Results translated into $DOLLARS

Performance Measurement	**Benefit of High Ig Status Calves**	**Potential Economic Benefit per Calf**
Weight Gain	2.2 pounds more	$1.53
Feed Conversion	12 pounds less feed	$7.32
Mortality	12 percent less of total	$36.00
Health Treatment per calf	$3.74 less per calf	$3.74
TOTAL ECONOMIC	**BENEFIT**	**$48.59**

(Adapted from Table 4 from Fowler)

Assumptions:

1. Feed conversion value calculated with 0.4 pounds of feed per pound of gain difference times thirty pounds of gain in four weeks equals twelve pounds of feed saved. Milk replacer valued at $60/50# bag and calf starter grain valued at $19.25/50# bag. Average value of feed consumed (2/3 milk replacer, 1/3 calf starter grain) set at $.90/pound.

2. Mortality value calculated with 12 percent difference times initial calf value of $200.

3. Health treatment costs observed in sample of 633 calves where antibiotic and electrolyte treatment costs were recorded.

4. Weight gain value calculated with 2.2 pounds difference times $.70 per pound of gain.

5. Small differences between table values and those calculated from these assumptions are due to rounding errors.

Reference: Fowler, Mike "What is it worth to know a calf's Ig Level?" in Proceedings of the Professional Dairy Heifer Grower Annual Conference, March 1999, pp. 31-36.

א Low Ig = <1000 mg/ml, High Ig = 1000 mg/ml and higher. Comparable values for Blood Serum Total Protein are Low = less than 5.2, High = 5.2 or greater.