

## Reach New Goals in your Colostrum Management this Year!

It's time to challenge dairy producers yet again in the area of colostrum management. Successful transfer of passive immunity comes from the calves' ability to absorb immunoglobulins (Ig), resulting in healthier and more efficient calf growth. This involves quality, quantity, quickness and cleanliness, to achieve a high success rate. For more than 30 years, the dairy industry standard for successful transfer of passive immunity was quantifying or measuring calf serum IgG greater than 10 g/L (or 5.2 g/dl total protein), anything less was considered failure of passive immunity.

At this standard, the dairy industry made significant improvements to calf health and survivability as shown in the table using NAHMS (National Animal Health Monitoring System) data. Yet, what has remained steady without much improvement is calf morbidity, primarily scours and respiratory, at a rate of 30%. In reviewing the data, calf experts have made new recommendations to passive immunity standards to assist in lowering calf morbidity.

	1991-92 NAHMS	2014 NAHMS
<b>FPT (failure of passive transfer)</b>	41%	13%
<b>Calf Mortality</b>	10.8%	6.4%

During the 2020 Dairy Calf and Heifer Association (DCHA) Conference, Jason Lombard, U.S. Department of Agriculture Animal and Plant Health Inspection Service: Veterinary Services, Fort Collins, Colo., explained new standards that will remain realistic and achievable while improving calf health and productivity even further.

TPI Category	Serum IgG categories (g/L)	Equivalent TP (g/dl)	Equivalent Brix %	Farm Level % calves	NAHMS Study % calves
<b>Excellent</b>	≥25.0	≥6.2	≥9.4%	>40%	35.5%
<b>Good</b>	18.0-24.9	5.8-6.1	8.9-9.3%	~30%	25.7%
<b>Fair</b>	10.0-17.9	5.1-5.7	8.1-8.8%	~20%	26.8%
<b>Poor</b>	<10.0	<5.1	<8.1%	<10%	12.0%

This table (*modified from Godden et al., VCNA 2019*) describes a 4-category system – excellent, good, fair and poor, corresponding to cut points in serum IgG, equivalent total protein, and percent Brix measurements. For each category, a recommended percentage of calves should fit within the range at the farm level and in accordance with NAHMS 2014 Dairy Study data.

### How will you meet this challenge?

The goal of setting these new standards is to reduce calf morbidity as an industry (scours and respiratory) and continually produce a healthy calf that will eventually lead to a highly productive, healthy, milking cow.

- Feed a high-quality colostrum to reach these higher goals.
- Provide a single feeding of colostrum within ~2 hours after birth that delivers ~300 g of IgG.
- Or, provide multiple colostrum feedings that delivers ~400 g of total IgG in the first 24 hours.
- Visit [www.extension.iastate.edu/dairyteam/calves-heifers](http://www.extension.iastate.edu/dairyteam/calves-heifers) for more information on other factors that could impact early life calf health.

# MAXIMIZE CALF POTENTIAL USING THE 5 Q'S

Raising healthier and more productive calves



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## QUICKNESS

Provide a single feeding colostrum ASAP or within 2 hours after birth



## QUALITY

Deliver 300 g of IgG at first feeding, with a total of 400 g of IgG over multiple colostrum feedings



## QUANTITY

Strive for a minimum 50 g of IgG per liter of colostrum fed



## SQUEAKY CLEAN

Clean all feed and water buckets at least once a week  
Bottles including nipples should be cleaned and disinfected after each feeding

## QUANTIFY

Use the table described below to evaluate success of passive transfer, re-evaluating management practices if calves are not within range



Table of new standards to improve calf health and productivity

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