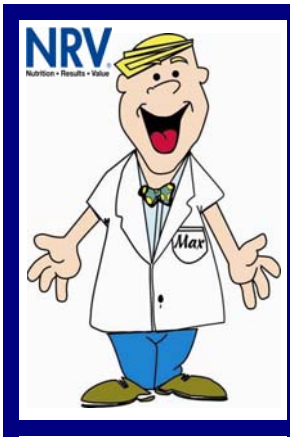

Max Facts -
Calf Max's Technical Newsletter

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Gold Standards for Colostrum Management

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Calf health depends on adequate colostrum intake to receive maternal antibody protection against calfhood diseases. Transfer of maternal antibodies are considered adequate when serum protein is above 5.2 g/dL. Failure of passive transfer results in inadequate protection of calves, increased incidence of morbidity and mortality.

This paper is designed to help dairymen more effectively manage their colostrum program. Here's a series of areas that are important to assure your colostrum program is as effective as possible.

1. The Right Cow. Answer "yes" or "no" to the questions below. Make an "X" on the line or in the box next to the question for yes or no. If you answer any questions with an "X" on a line, do not use colostrum from this cow. Only colostrum from cows with all answers in a box are acceptable for feeding to your calves.

No	Yes	
_____	☐	Does cow have a "negative" *Johnes* ELISA test?
_____	☐	Is cow healthy?
☐	_____	Does cow have mastitis?
☐	_____	Has cow leaked milk?
☐	_____	Does cow have blood in milk?
_____	☐	Has cow been dry at least 45 days prior to calving?
_____	☐	Has cow been in the transition group for a minimum of 14 days?

2. The Right Colostrum Collection. If any of these areas have a "no", it's time to review and improve your practices.

No	Yes	
_____	☐	Move cow to milking area within 2 hours of calving.
_____	☐	Milk fresh cows before sick or treated cows.
_____	☐	Cow preparation is identical to routine parlor practices.
_____	☐	Milking equipment is serviced and sanitized between cows and between milking.
_____	☐	Save a frozen sample for future reference.

Gold Standards of Colostrum Management

3. The Right Colostrum Storage. If any of these areas have a "no", it's time to review and improve your practices.

No	Yes	
_____	☐	Fresh colostrum is put into 4 quart calf bottles or ziplock containers.
_____	☐	Each container is marked with cow ID and date of collection.
_____	☐	Colostrum not fed within 2 hours is placed into a clean refrigerator with potassium sorbate preservative
_____	☐	Colostrum > 7 days old is discarded

4. The Right Colostrum Administration. If any of these areas have a "no", it's time to review and improve your practices.

No	Yes	
_____	☐	Calves are moved out of the calving area immediately after birth.
_____	☐	One single meal of first milk colostrum (from a single cow) is given to newborn calves.
_____	☐	One gallon of high quality colostrum is given within 1 hour after birth with esophageal feeder
_____	☐	An additional 2 quarts of high quality colostrum is given 6 hours after first feeding

A realistic goal for dairymen is to have 80% of calves with serum total protein ≥ 5.0 g/dL and 50% of calves with serum total protein ≥ 5.5 g/dL. Well-managed farms may have 90 - 95% of calves with serum protein ≥ 5.2 g/dL. If your calves are not achieving a serum total protein ≥ 5.2 g/dL, it is time to review your basic procedures. Check colostrum ***Quality*** with a colostrometer and make sure colostrum is free of blood, debris, and mastitis. The ***Quantity*** of colostrum fed should be approximately 10% of the calf's body weight which is about 1 gallon (4 quarts) for a 100 lb calf. ***Timing*** of colostrum is important. Colostrum should be fed within the first 4 hours of life - preferably within 1 hour of birth. Finally, ***Contamination*** of colostrum can be a real issue - prepare the cow for collecting the colostrum the same as for the milking cows. Culture colostrum for bacteria to assure there is ≤ 100,000 CFU/mL. Colostrum not fed within 2 hours should be preserved with potassium sorbate and stored in a clean refrigerator or freezer. Discard any colostrum that is not fed within 7 days of collection.

The importance of colostrum for calves cannot be overstated. In addition to immunoglobulins, colostrum contains may bioactive substances which are critical for optimum growth and well-being. In one study (Crowley et al, 1994), calves given blood-derived immunoglobulins gained 51 lb over 42 days compared with only 32 lb gain in calves given only milk replacer and no colostrum. Both the incidence and severity of scours were higher in calves fed only milk replacer and not given colostrum. Better colostrum management makes calf management easier!

Information for this article was from the 2009, Dairy Calf and Heifer Association Gold Standards of Colostrum Management. This information was presented in a DCHA Webinar on August 20, 2009 by Lewis Anderson, Dr. Sam Leadley, and Dr. Gary Neubauer.

NRV®
We take care of calves, naturally !

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