

Dairy Details

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Editor:

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NORTHERN VALLEY DAIRY PRODUCTION MEDICINE CENTER

Strengthening Your Calf Program

As we move into winter, this is a good time to review your calf care program to ensure your team is prepared for the more challenging management that accompanies cold weather and snow.

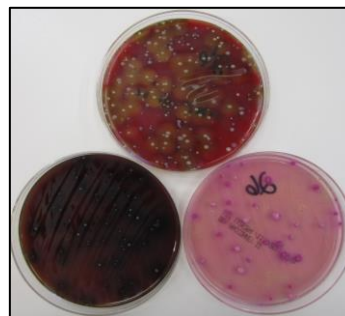
Often times, outside consultants from feed companies offer their services for “free” and while they are a great source of information and help, your veterinarian is also a valuable person to consult, especially because of the regular visits and relationship he/she may have with the farm and employees and his/her training in disease management. Furthermore, the veterinarian can provide follow up along with regularly scheduled herd check. We can also start a “calf herd health” to set aside time devoted specifically to calves.

There are several areas to consider when reviewing a calf program, starting at the maternity pen all the way to the post weaned period. All time points in between can have significant impacts on the growing heifer and ultimately her milking performance. Poor growth rates and disease rates can have particularly negative impacts on future milk production.

Overview of a calf monitoring program/audit:

Colostrum/Calf Milk Cultures:

- Northern Valley offers a variety of cultures, including calf milk and colostrum cultures. We can use these to pinpoint contamination in a system. Typically, we will ask for samples pre-pasteurization, post-pasteurization, and as fed (taken towards middle or end of feeding). Sometimes we find that pasteurizers may not be working correctly or that we are starting with too dirty of product. Pasteurization only reduces bacteria, so if we start with very dirty milk, it can still result in dirty milk post-pasteurization.
- Sometimes we hear the complaint that calves of all ages have weird poop. In these cases, we suspect that this is a result of improper pasteurization or dirty milk since all calves are receiving the same diet.



Calf milk culture

We use several types of plates to do this. Each plate grows a specific set of bacteria. This way we can tell the difference between Strep, Staph, and coliforms.

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Total solids of milk/Brix measurement of colostrum:

- Consistency!
- Whether feeding waste milk or milk replacer, it is important for the total amount of solids being fed to calves to remain nearly the same every day. Large swings in solids can cause diarrhea, abomasal bloat, and poor growth rates. The total solids of whole milk tends to be lower than milk replacer. If we find that the solids are very low, we can feed more whole milk or use a balancer can ensure calves get enough calories. This is also a good way to check that milk replacer is being mixed correctly, especially when multiple people are feeding calves.

ATP luminometer:

- This meter involves taking a swab of equipment and then measuring the ATP on that swab. ATP is a molecule present in all living organisms. We use the measurement as an estimation of bacteria since bacteria have ATP inside them. A good goal is <100 on the ATP meter.
- We can use the ATP meter on equipment such as bottles, nipples, buckets, pasteurizer hoses/gaskets/valves, etc. to check if the cleaning routine is adequate. Sometimes we find that we need to adjust or review the cleaning procedure, or replace equipment from time to time.
- This is also a convenient time to check how large the nipple openings are and if they need replacing. If the milk runs out of the bottle when held upside down, the nipple opening is too big. This can lead to aspiration and pneumonia in young calves.

Serum total proteins

- We can use serum total proteins to assess the colostrum program on a farm.
- To do this, we collect blood from calves 24 hours up to 7 days old. We then spin the blood down and use the serum to measure total protein in the blood sample. Based on research, we can correlate these levels to antibody levels in the calves.

Category	IgG Level (g/L)	STP Level (g/dL)	Serum Brix Level (%)	Percent of Calves in Each Category
Excellent	>25.0	>6.2	>9.4	>40
Good	18.0-24.9	5.8-6.1	8.9-9.3	30
Fair	10.0-17.9	5.1-5.7	8.1-8.8	20
Poor	<10.0	<5.1	<8.1	10

- We would suggest that 70% of calves or more achieve a 5.8 and higher on the serum total protein. The higher the level, the less disease occurs.
- When colostrum replacer is used, it can be more difficult to assess the program, because we find that the total protein measurements will be lower. This is likely due to the way proteins are bound in the gut. However, we can still assess the colostrum program if you are using colostrum replacer.

Other calf services include:

- Disease recording/monitoring
- Treatment protocol development
- Employee training – a favorite of the vets!
- Goal development/benchmarking

Feel free to talk with one of the vets about implementing calf monitoring on your farm!

Current Backorder Items

- Cobalt nitrile gloves, also some other gloves
- SulfaMed (Sulfadimethoxine) Injection 40%, 250mL
- Sulfadimethoxine (Concentrated Solution 12.5%), 1 Gal
- Clostridium Perfringens C and D Antitoxin, 250mL
- VetriPen G (Penicillin G Procaine), 100 mL
- Tetanus Antitoxin, 15000 Units, 20mL
- Dexamethasone – limited supply
- Predef 2X –discontinued
- Inforce 3 - 10 dose, 25 dose, 50 dose
- Bovishield Gold One Shot - 5 dose and 10 dose
- Corid (but we can get generic)
- Blood stop powder
- Tomorrow dry cow tubes – box of 12/pail of 144
- Sustain III calf boluses – limited quantity
- Entervene D – 10 dose and 50 dose (*supposed to be back by end of October*)

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