

Make your own Fresh Cow Protocol

NODPA Field Days Virtual Conference

Dr. Dayna Locitzer, Green Mountain Bovine Clinic, West Chesterfield, NH

This presentation will give some tips, tricks, and things to think about when taking care of your fresh cows. Fresh cows are experiencing a lot in terms of their external and internal environment. As a consequence of the enormous biological change of calving, they face mineral imbalances, negative energy balance, unchecked inflammation, potential nerve damage, edema, and stress. This is especially true for pasture-based dairies who don't have their diets and environments as tightly regulated as conventional cows, even though they often have more space, are not pushed as hard and access to phytonutrients from pasture. Organic dairies also do not have the option of using certain conventional treatments, therefore prevention of the negative consequences of calving are very important.

I would suggest for all farms to have a fresh cow protocol for every cow that calves, and it can be catered to your farm and the needs of your cows. This is good preventative medicine. It can be as simple as warm water with molasses, or a protocol with more elements. Here is an example of a fresh cow protocol that includes a drench and boluses that tackle many of the challenges fresh cows are facing

Drench

- 5 gallon bucket warm water
- 200 ml Molasses
- 1 cup Epsom salts
- 100 g kelp
- Homeopathic remedy based on the cow (30c)
 - Arnica, Caulophyllum, Hypericum, Apis

Boluses

- Bovicalc-if second or greater lactation
- 4 Aspirin
- Repeat in 12-24 hours

In the drench you have warm water, which will help expel the placenta. Molasses to help introduce additional glucose to the system to combat negative energy balance. Epsom salts to address magnesium deficiency. Kelp to boost the immune system. You can also add a homeopathic treatment that specifically addresses the needs of that individual cow. Arnica if there is a lot of vaginal bruising, caulophyllum if she has a retained placenta. Hypericum if it was a large calf and nerve damage is suspected. Apis if she is a fresh heifer experiencing a lot of edema. Ideally they would drink this on their own, but it can also be pumped into them.

As for boluses, 4 aspirin and 1 Bovicalc calcium bolus for cows of second or greater lactation. This whole protocol can be repeated in 12-24 hours if you chose.

I'd like to highlight a few of the elements I have included. Epsom salts are a good source of Magnesium. This spring we saw fast growing pasture, an indication that the grass is low in

magnesium. Pasture also has high potassium concentrations, a mineral that prevents the absorption of magnesium. Magnesium deficiency builds up over time and often shows itself in times of stress, like calving. Spring calving unfortunately combines many of the risk factors for hypomagnesemia, mineral deficiency build up after a winter of stored feeds, fast growing pasture and a stressful event. Hypomagnesemia is commonly associated with grass tetany, a dramatic neurologic disease. But magnesium deficiency can have less obvious signs. This spring I saw a few milk fever cases that could not be corrected with calcium alone, they needed magnesium too. It can also create aggressive cows or cows that simply don't come into milk in a robust way. It is important to supplement with Epsom salts for calvings, and at high risks times of year providing Epsom salts for a few days after calving would be helpful.

Magnesium deficiency is exacerbated by Calcium deficiency. Calcium deficiency is often associated with Milk Fever, but it is more than that, and is often times more subtle. Hypocalcemia has been associated with increased risk of retained placenta, metritis, mastitis, ketosis, and displaced abomasum. This is because calcium is important in proper immune function. Pastured cows are especially at risk of this because pasture and hay are high in potassium, a mineral that in too high quantities prevents proper regulation of calcium. Bovicalc calcium boluses are a good source of available calcium that not only provide a steady 12-hour supply of calcium but also help with the hormonal regulation of blood calcium.

Lastly, I'd like to mention why I have included aspirin in the protocol. Aspirin is an anti-inflammatory whose active ingredient is derived from Willow Trees, a known herbal pain reliever. At calving the immune system of a cow goes into overdrive, which has both good and bad consequences. Expelling the placenta is an immune reaction, but an unchecked immune system can cause high somatic cell count and uterine wall inflammation. In recent studies, providing cows with 4 aspirin at calving has shown to increase milk production, decrease circulating ketones, and decreased days until they breed back. This is in addition to the pain-relieving qualities of aspirin, which would most likely cause the cow to eat more helping to counteract the negative consequences of decreased feed intake at calving.

Here is a cost breakdown of this protocol.

Amount	Ingredient	Cost
1 bolus	Bovicalc	\$8.00
4 boluses	Aspirin	\$0.30
200 ml	Molasses	\$0.35
1 cup	Epsom Salts	\$0.35
10 pellets	Homeopathic remedy	\$0.10
100 g	Kelp	\$0.45
TOTAL		\$9.55

This \$9.55 will go a long way when you think about the diseases that are being prevented. Studies have shown that the negative consequences of subclinical hypocalcemia can cost up to \$300 per cow when production losses are considered.

I hope this presentation provided you with guidance on how to make your own fresh cow protocol. If you have any questions please email me at DaynaLocitzer@gmail.com or if are in the Windham, VT, Cheshire, NH, or Franklin, MA counties and would like our services, please call (603)-256-8400.