

# MBNS Fresh Cow Protocols

## **FRESH CAL**

A molded calcium bolus formulated with rapid release Calcium Chloride as the primary calcium source. As well as Calcium Sulfate and Calcium Propionate which provide a slower release of Calcium. In addition, the boluses supply Vitamin D<sub>3</sub> to aid in calcium absorption, niacin to support liver function, and yeast extract  $\beta$ -glucans to support immune function.

## **STIMULATE RUMEN BOLUS**

Two capsules formulated with the 240 billion colony forming units of CEREVIDA live yeast, 100 billion colony forming units of PROVIDA probiotics, 8 grams of CEREVIDA EXCELL yeast extracts, 10 grams of niacin, 100,000 IU of Vitamin A, 40,000 IU of Vitamin D, and 1,000 IU of Vitamin E.

- Supplies 4 times the daily recommendation of live yeast
- Supplies 20 times the daily recommendation of probiotics
- High dose of yeast cell wall extracts
- High dose of fat soluble vitamins and trace minerals

### ***Primiparous Animals (1<sup>st</sup> lactation heifers)***

- (1) Administer 1 package of FreshCal (4 boluses) and 2 Stimulate boluses immediately after calving
- (2) Continue to give 4 Stimulate boluses every 24 hours to sick animals<sup>1</sup>

### ***2<sup>nd</sup> Lactation***

- (1) Administer 1 package of FreshCal (4 boluses) and 2 Stimulate boluses immediately after calving
- (2) Administer another package of FreshCal and 2 Stimulate 12-24 hours later
- (3) Continue to give 4 Stimulate boluses every 24 hours to sick animals<sup>1</sup>

### ***Greater than 3<sup>rd</sup> Lactation or High risk<sup>2</sup>***

- (1) Administer 1 package of FreshCal (4 boluses) and 4 Stimulate boluses immediately after calving
- (2) Administer another package of FreshCal and 2 Stimulate 12-24 hours later and then again another 24 hours later
- (3) Continue to give 4 Stimulate boluses every 24 hours on sick animals<sup>1</sup>

<sup>1</sup> Sick animals: Visual signs of disease can include:

- Off-feed or sunk-in stomach
- Retained placenta
- Metritis or Mastitis

<sup>2</sup> High risk animals include:

- Delivered twins
- Hard calving
- Previous milk production greater than the herd average
- Previous lactation health event (mastitis, metritis, retained fetal membranes, displaced abomasum)
- Previous lactation days open greater than 135 days in milk
- Body condition score at calving greater than 3.75
- Days dry less than 45 or greater than 70 days
- Any Lameness

### ***Hospital Cows or Off-Feed Cows***

(1) Administer 4 Stimulate boluses daily

## **RESTORE DRENCH**

An oral drench formulated to supply 56 grams of calcium, 20 grams of magnesium, 15 grams of niacin, electrolytes, 100 billion colony forming units of CEREVIDA Live Yeast, and 25 billion colony forming units of PROVIDA probiotics per pound of drench.

### ***All Animals***

***Low-risk<sup>2</sup>***: Administer 1 pound of RESTORE Drench per 5 gallons of warm water

***High-risk<sup>2</sup>***: Administer 2 pounds of RESTORE Drench per 5 gallons of warm water

Continue use daily as needed for sick animals<sup>1</sup>

## REFERENCES

- (1) Caixeta, L.S., P.A. Ospina, M.B. Capel, and D.V. Nydam. 2017. Association between subclinical hypocalcemia in the first 3 days of lactation and reproductive performance of dairy cows.
- (2) Leno, B.M., E.M. Martens, M.J.B Felipe, K.P. Zanzalari, J.C. Lawrence, and T.R. Overton. 2017. Short communication: Relationship between methods for measurement of serum electrolytes and the relationship between ionized and total calcium and neutrophil oxidative burst activity in early postpartum dairy cows. *J. Dairy Sci.* 11:9285-9293.
- (3) Leno, B.M. R.C. Neves, I.M. Louge, M.D. Curler, M.J. Thomas, T.R. Overton, and J.A.A. McArt. 2018. Differential effects of a single dose of oral calcium based on postpartum calcium concentrations in Holstein cows. *J. Dairy Sci.* 101:3285-3302.
- (4) Mahen, P.J., H.J. Williams, R.F. Smith, and D. Grove-White. 2018. Effect of blood ionized calcium concentration at calving on fertility outcomes in dairy cattle. *Vet. Record* 1-6.
- (5) Martinez, N., C.A. Risco, F.S. Lima, R.S. Bisinotto, L.F. Greco, E.S. Ribeiro, . Maunsell, K. Galvao, and J.E. Santos. 2012. Evaluation of periparturient calcium status, energetic profile, and neutrophil function in dairy cows at low or high risk of developing uterine disease. *J. Dairy Sci.* 95:7158-7172.
- (6) Martinez, N., L.D.P. Sinedino, R.S. Bisinotto, R. Daetz, C.A. Risco, K.N. Galvao, W.W. Thatcher, and J.E.P. Santos. 2016. Effects of oral calcium supplementation on productive and reproductive performance in Holstein cows. *J. Dairy Sci.* 99:8417-8430.
- (7) Oetzel, G.R. and B.E. Miller. 2012. Effect of oral calcium bolus supplementation on early-lactation health and milk yield in commercial dairy herds. *J. Dairy Sci.* 95:7051-7065.
- (8) Valdecabres, A., J.A.A. Pires, and N. Silva-del-Rio. 2018. Effect of prophylactic oral calcium supplementation on postpartum mineral status and markers of energy balance of multiparous Jersey cows. *J. Dairy Sci.* 101:4460-4472.