



## Anionic Mineral Supplement

### Optimal Mineral Nutrition for the Close-Up Dry Cow

Animate<sup>®</sup> was developed as a nutritional supplement to help optimize the health and performance of the “transition cow”—the time comprising 3 to 4 weeks before and 2 to 4 weeks after calving. Proper feeding and management of dry cows should be viewed as an investment in the next lactation.

The addition of *Animate* to the diet of late pregnant dry cows can help reduce the incidence of clinical (milk fever) and subclinical hypocalcemia (low blood calcium) and may result in reduced incidence of metabolic and non-metabolic disorders associated with hypocalcemia, resulting in improved transition performance including greater milk yield.

- Subclinical hypocalcemia occurs in 25% of first-calf heifers and greater than 50% in second lactation and older COWS (Reinhardt et al., 2011. Vet J. Vol. 188, 122-124).
- Hypocalcemia is associated with numerous health disorders and reduced performance, including: mastitis, ketosis, dystocia, retained placenta, prolapsed uterus, metritis, udder edema, displaced abomasum and fatty liver (Horst et al., 1997. JDS.80:1269-1280 and Curtis et. al., 1985. JDS.68:2347-2360).
- Estimated economic impact of some health disorders:

Metabolic Event	Est. \$/Incidence
Milk Fever <sup>1</sup>	\$408
Subclinical Hypocalcemia <sup>2</sup>	\$125
Displaced Abomasum <sup>3</sup>	\$405-\$555
Ketosis <sup>3</sup>	\$80-\$92
Retained Placenta <sup>3</sup>	\$146-\$213
Metritis <sup>3</sup>	\$176-\$186

<sup>1</sup>Cost per case from veterinary fees, drugs, labor, lost or discarded milk and culling (C. Guard, et al., 1996)

<sup>2</sup>Non-infectious diseases: Milk fever in Encyclopedia of Dairy Sciences. Vol. 2. F. J. W. Fuquay, P.F., McSweeney, P.L.H., ed. Academic Press, San Diego Oetzel 2011. Lost milk yield and direct costs associated with ketosis and displaced abomasums

<sup>3</sup>Liang, Di, “Estimating the Economic Losses from Diseases and Extended Days Open with a Farm-Level Stochastic Model” (2013). Theses and Dissertations—Animal and Food Sciences. Paper 22. [http://uknowledge.uky.edu/animalsci\\_etds/22](http://uknowledge.uky.edu/animalsci_etds/22). First value is for first parity animals and second value is for mature cows.

*Animate* is a unique and patented anionic mineral supplement. This homogeneous and palatable product contains chloride (Cl), sulfur (S) and magnesium (Mg), three critically important macro-minerals necessary for proper mineral formulation of negative DCAB diets.

Based on numerous field studies, university research and commercial applications, *Animate* has been shown to help keep transition cows healthy and productive.

Field observations and university research demonstrate that *Animate* may promote increased pre- and postpartum dry matter intake.

#### Characteristics and benefits include:

- Highly palatable and readily consumed
- Homogeneous physical and chemical profile ensures even ration delivery with a uniform and consistent acidification
- One of the most concentrated commercially available anionic products, allowing for easy diet formulation
- Formulated with proper levels of chloride (Cl) and sulfur (S) for easy and effective negative DCAB ration formulation
- Provides supplemental levels of phosphorus (P) and magnesium (Mg), key nutrients needed for a complete anionic diet formulation

#### Formulation guidelines (dry matter basis) for close-up dry cow rations using negative DCAB balancing:<sup>1</sup>

- Calcium (Ca): 1.52 to 1.6% or 180–190 g/d
- Phosphorus (P): 0.36 to 0.42% or 42–50 g/d
- Magnesium (Mg): 0.45 to 0.50% or 53–59 g/d
- Potassium (K): 1.00 to 1.30% or 118–153 g/d
- Sodium (Na): 0.10% to 0.20% or 12–24 g/d
- Sulfur (S): 0.40 to 0.47% or 47–55 g/d
- Chloride (Cl): 0.80 to 1.00% or 94–118 g/d
- DCAB: -10 to -15 mEq/100 g

<sup>1</sup> Values based on a dry matter intake of 26.0 lbs per head per day.



## Product Description

Animate® is an anionic mineral supplement for non-lactating dairy cows.

## Label Guarantees

Crude Protein (Min).....	32.00%
Equivalent Crude Protein from Non-Protein Sources (max).....	25.00%
Sulfur (actual) .....	4.90%
Calcium (actual).....	1.25%
Magnesium (actual) .....	4.50%
Chlorine (actual) .....	13.30%
Dietary Cation Anion Balance (Na + K) - (Cl + S) (actual).....	-6500 mE/kg

## Physical Description

Appearance/Form.....	Uniform, granular
Color .....	Tan
Bulk Density .....	44 lb/cu ft (642 kg/cu m)
Moisture .....	15%
pH.....	4.5

## Feeding Directions

Feed a minimum of 21 days prior to calving at a rate of between 0.54 kg to 0.68 kg per head daily depending on the desired level of negative DCAB of the diet. Feed continuously up to calving.

Dry cows receiving this product require a minimum calcium intake of 120 grams per head per day.

Caution: Use only as directed. For dry cows only.

## Tips for Best Results

- Follow feeding recommendations precisely. Monitor urine pH as a way of determining acidification level. Ideally, urine pH values should range between 5.5 and 6.0.
- Test urine pH 6 to 9 hours postfeeding.
- If average urine pH values are below the lower value, reduce the feeding level of *Animate*.
- If average urine pH values are above the higher value, increase the feeding level of *Animate*.
- Monitor urine pH values routinely, and especially after significant dietary ingredient changes.

## Limitations/Safety

For close-up dry cow use only.

## Packaging

25 kg, poly-lined three-ply paper bags.

## Shelf Life/Storage

Keep in original packaging in a dry place and avoid sunlight. To preserve product quality, do not stack pallets or totes.