

# CIDIFY™ Innovative Anionic Blend



## DCAD – A closer look

Electrolytes for adult animals are commonly expressed as **DCAD** – the **dietary cation-anion difference**. DCAD is an index of the relative balance between the principle cations and anions in the cow's diet.

- Cations are positively charged and include:
  - Sodium (Na<sup>+</sup>)
  - Potassium (K<sup>+</sup>)
- Anions are negatively charged and include:
  - Sulfur (S<sup>-</sup>)
  - Chloride (Cl<sup>-</sup>)

Although several equations can be used to calculate DCAD, the most commonly used is:  
DCAD = mEq (Na + K) – (Cl + S)

<b>Production Phase</b>	<b>Target Diet DCAD Levels<sup>1</sup></b>
<b>Transition</b>	<b>-8 to -15 mEq per 100 g</b>
Early lactation	+35 to +45 mEq per 100 g
Mid-late lactation	+35 mEq per 100 g

<sup>1</sup> Hu and Murphy. 2004. Dietary cation-anion difference effects on performance and acid-base status of lactating dairy cows: A meta-analysis. J. Dairy Sci. 87:2222-2229.

## Healthy Cows Perform Better

Dairy animals are exposed to a wide range of potential stressors every day. Even though we try to minimize challenges (e.g., environmental, transition, production, diet variation), animals that are unable to withstand the challenges are compromised in their health and overall lactation performance.

### Pre-fresh Cows – Anions

In comparison to post-fresh cows, transition cows can benefit from a negative DCAD which helps prevent metabolic disorders. To aid in the prevention of hypocalcemia or milk fever, provide a diet with a negative DCAD. Hypocalcemia is caused by low blood calcium levels in the early postpartum period. Hypocalcemia occurs when demands for calcium exceed what the cow is able to absorb from dietary sources and mobilize from storage in bone. Cows that experience hypocalcemia are more likely to develop other metabolic disorders, such as fever, ketosis and metritis.

## Cidify helps Support Health and Performance

Cidify is an anionic blend designed to supply a consistent amount of anions in the cow's close up period to help temper hypocalcemia related disorders. It provides dietary anions with a DCAD of -910 milliequivalents (mEq) per 100 g allowing the nutritionist to meet a -12 to -16 DCAD with an average inclusion rate of 0.5 to 0.7 lb of dry matter (DM) depending on target DCAD and cation levels of other ingredients.



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## Key Features:

- **Concentrated** – One of the most concentrated anionic blends in the marketplace today, which helps preserve value formula space.
- **Palatable** – Does not reduce dry matter intake during the pre-partum period, which allows higher dry matter intake postpartum.
- **Consistent Quality** – We utilize only quality, traceable ingredients to ensure product consistency.

## Key Benefits:

There are numerous benefits. Research shows Cidify helps:

- Establish negative DCAD levels
- Optimize rumen health and microbial protein production
- Maintain dry matter intake pre-partum
- Promote overall fresh cow health and wellness

## Typical Analysis:

### NUTRIENT PROFILE

Nutrient	Units	As-fed Basis	DM Basis
Dry Matter	%	93.10	100.00
Crude Protein	%	42.90	46.10
NPN	%	5.30	5.70
Crude Fat	%	2.51	2.70
Sodium	%	0.19	0.20
Chloride	%	16.64	17.89
Calcium	%	2.14	2.30
Potassium	%	0.42	0.45
Magnesium	%	4.89	5.26
Sulfur	%	6.35	6.83
Cobalt	ppm	236.10	253.90
Propionate	%	1.00	1.07
Bulk Density	lb/Cubic ft	48.00	NA

## Recommended Feeding Rate

Cidify should be fed to pre partum cows 21 days prior to calving. Inclusion rates depend on target DCAD and cation levels of ingredients used in the diet. Typical inclusion rate is 0.5 lb per cow per day.

- DCAD in the transition diet should be between -80 to -150 mEq per kg dry matter to effectively control milk fever and low blood calcium.
- Monitor cow urine when using anionic products. Urine pH is a reasonable indicator of metabolic pH status and reflects the effectiveness of anionic products. Urine pH should be 5.8 to 6.5 for Holsteins and 5.5 to 6.0 for Jerseys.
- Check and account for minerals in water when formulating diets for negative DCAD.

## Quality Commitment

Quality is an integral part of D&D's business principles. These principles guide our actions to deliver products and services that are safe, effective, and reliable.

## Manufacturing Certifications:



TF: 800.543.7962

Phone: +1.419.692.3205

[d-dfeed.com](http://d-dfeed.com)

If you would like more information about Cidify, please contact your local Nutrition Specialist or D&D Ingredient Distributor Representative.

5191 Kill Road  
Delphos, OH 45833  
1.800.543.7962



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