

What's Your DCAD Number?

DCAD balancing is a complex concept that has simple yet profound effects on herd performance and health. This process keeps vital nutrients in balance so that your cows perform to their potential, regardless of lifecycle stage. DCAD measures the charges of four macrominerals necessary for optimal herd performance.

$$\begin{matrix} \uparrow & \text{Cations: Positive Charge} \\ & (\text{sodium} + \text{potassium}) \end{matrix} - \begin{matrix} \downarrow & \text{Anions: Negative Charge} \\ & (\text{chloride} + \text{sulfur}) \end{matrix} = \text{+ DCAD}$$

Positive DCAD

DCAD balancing isn't just for transition cows. Because fresh and high-producing cows are potassium deficient, feeding DCAD Plus® Feed Grade Potassium Carbonate to raise DCAD levels provides the potassium necessary to optimize performance, including increased dry matter intake (DMI) and improved milk and component production.

Feed to: Lactating cows

DCAD number: +35 to +45

- Why:**
- ◆ Boosts early lactation milk production and component levels
 - ◆ Replaces potassium lost through daily maintenance and milk production
 - ◆ Replenishes potassium levels lost through increased sweating and panting in heat-stress conditions
 - ◆ Promotes DMI

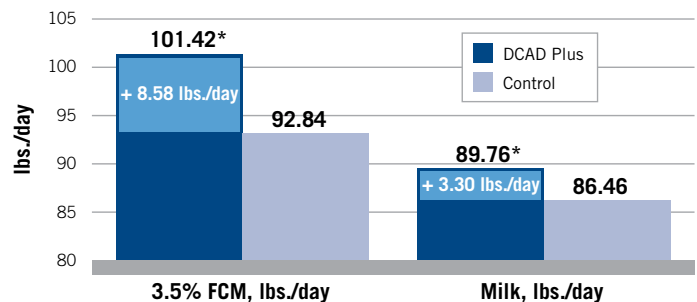
What the research says:

Cows fed DCAD Plus to raise DCAD to +42 outperformed the control group fed a diet with DCAD of +25 by¹:

- ◆ +8.58 lbs. increase in fat-corrected milk per day
- ◆ +3.30 lbs. improvement in milk per day
- ◆ +0.44 lbs. jump in butterfat per day

When it comes to DCAD, knowledge is power. DCAD Plus helps you achieve positive DCAD levels for improved milking string performance.

Improved Milk Production¹



*Differences were significant (P<0.05)

To learn more about how DCAD Plus can improve your herd's performance and health, contact your ARM & HAMMER® representative or your nutritionist, visit AHDairy.com or call 800-526-3563.

DCAD Plus
The Plus Forage Needs



Arm & Hammer
Animal Nutrition

¹ White R, Harrison J, Kincaid R, Block E, St-Pierre N. Effectiveness of potassium bicarbonate to increase dietary cation-anion difference (DCAD) in early lactation cows. Paper presented at ADSA-ASAS Joint Annual Meeting; July 8, 2006; Indianapolis, Indiana.

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Negative DCAD

As you know, transition is one of the most vulnerable periods in a cow's lifecycle. You must keep cows eating and healthy during close-up to ensure optimal performance throughout the lactation. BIO-CHLOR® Rumen Fermentation Enhancer is a palatable anion source that safely lowers DCAD levels and sets the stage for a successful lactation.

Feed to: Close-up cows at least three weeks before calving

DCAD number: -8 to -12

- Why:**
- ◆ Maintains DMI prior to calving
 - ◆ Reduces incidence of metabolic disorders, including milk fever and retained placentas, once in the milking string
 - ◆ Increases peak milk and production throughout the lactation

What the research says:

Cows fed BIO-CHLOR 21 days prepartum outperformed the control group²:

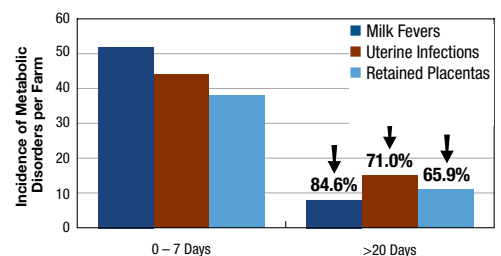
- ◆ +16.94 lbs. increase in peak milk production per day over five weeks
- ◆ +7.50 lbs. average predicted increase in milk production per day over 200 days of lactation
- ◆ +3.74 lbs. increase in DMI after calving

Multiple field trials on large commercial dairies³ confirmed the value of feeding BIO-CHLOR at least 21 days prepartum to reduce DCAD to -10:

- ◆ 84.6 % fewer cases of milk fever
- ◆ 71.0 % fewer uterine infections
- ◆ 65.9 % reduced incidence of retained placentas

When it comes to DCAD, knowledge is power. BIO-CHLOR helps you achieve negative DCAD levels for improved transition cow performance

Metabolic Disorder Reduction³



Multiple field trials including 13,000 cows on large commercial dairies confirmed the value of BIO-CHLOR when fed at least 21 days prepartum.

Corbett, Journal of Dairy Science, 2002.

To learn more about how BIO-CHLOR can improve your herd's performance and health, contact your ARM & HAMMER® representative or your nutritionist, visit AHDairy.com or call 800-526-3563.

BIO-CHLOR®
Make Transition Count

² Hoover WH, Miller-Webster TK. Difference in feed intake pre- and post-partum, urine pH prepartum, and difference in production parameters post-partum for cows fed a control diet vs. a BIO-CHLOR containing diet (DCAD -10 meq/100 g DM) for 21 days pre-partum. ADSA Abstract, 1998.

³ Corbett RW. Influence of days fed a close-up dry cow ration and heat stress on subsequent milk production in western dairy herds. *J Anim Sci* Vol. 80, Suppl. 1/*J Dairy Sci* Vol. 85, Suppl. 1.

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