## BoruCare® Capsin

# TURN UP THE HEAT, TURN UP THE YIELD!

Natural capsicum powder for digestibility and performance

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EVONIK
Leading Beyond Chemistry

# With BoruCare® Capsin, your dairy cows benefit from more efficient energy use, supporting consistent milk yield even when feed intake drops.

## THE METABOLIC CHALLENGES OF EARLY LACTATION AND HEAT STRESS

Dairy cows experience some of the greatest nutritional pressure during early lactation and periods of heat stress. During these times, reduced feed intake, poor nutrient absorption, and increased metabolic stress result in lower milk yield and compromised health. Farmers and nutritionists commonly rely on fans, sprinklers, and dietary adjustments to mitigate heat stress. Even though these strategies remain the main tools, there is still room for improvement when it comes to meeting energy requirements.

What's missing is a nutritional solution that boosts energy efficiency, supports gut function, and maintains milk production when cows are under pressure.

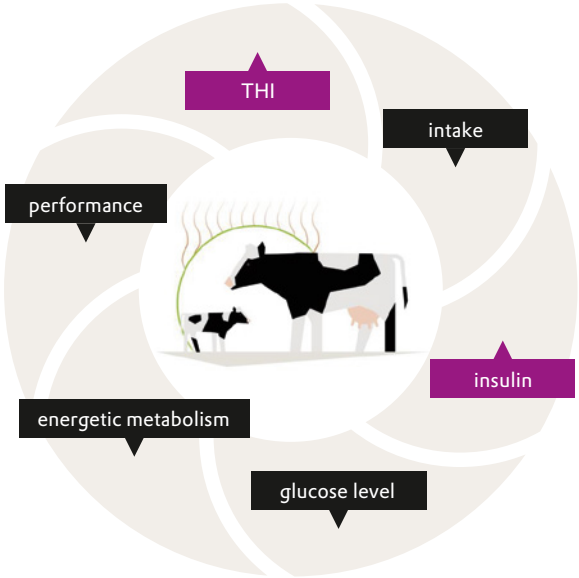



***Figure 1*** *Heat stress causes metabolic and physiological changes that reduce performance*

## WHY CAPSAICINOIDS MATTER FOR DAIRY PERFORMANCE

The key to supporting dairy cows under stress lies in improving nutrient use – not just increasing nutrient supply. Capsaicinoids, naturally present in chili peppers, act at multiple levels of the digestive and metabolic system to help cows get more out of every kilogram of feed.

**How capsaicinoids support performance:**

- Enhance nutrient digestibility by stimulating pancreatic and intestinal enzyme activity
- Improve energy efficiency by increasing glucose availability for the mammary gland
- Reduce nitrogen losses through better retention and utilization

Together, these effects help cows maintain performance during early lactation and heat stress, even when feed intake is reduced.

## NATURAL PROCESS, SUPERIOR HANDLING

BoruCare® Capsin is produced using a fully natural, solvent-free process, making it unique among capsaicin-based solutions. By grinding the entire chili pepper, all beneficial secondary metabolites are retained. The product is then standardized to a minimum of 0.5 % capsaicinoids and encapsulated in a fat matrix to reduce pungency and improve handling.

**Compared to oleoresin-based products extracted with solvents, BoruCare® Capsin provides:**

- 100 % natural origin with no solvent residues
- Better preservation of active compounds
- Excellent mixability and reduced dust
- Safe, user-friendly handling for mill operators and farmers

## BRIDGING THE ENERGY GAP FOR HIGHER YIELD

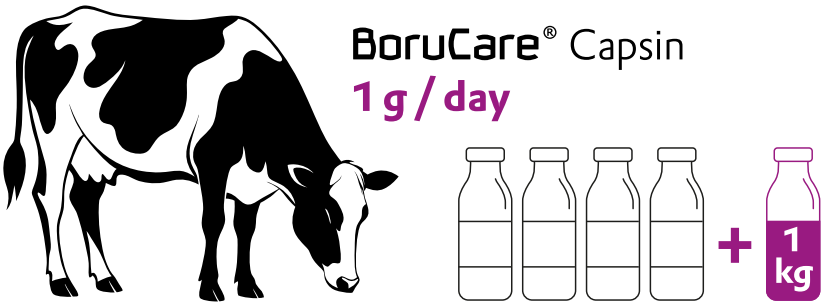
BoruCare® Capsin supports dairy cows exactly when they need it most – during periods of high metabolic demand. By enhancing digestibility and directing energy more efficiently toward milk production, BoruCare® Capsin helps cows maintain performance despite reduced intake.

Across multiple controlled and farm-level trials, supplementation of just 1 g per cow per day increased milk yield by around 1 kg / day on average – with even greater responses of up to 2.6 kg / day reported under heat stress conditions.

This makes BoruCare® Capsin a powerful and reliable tool for bridging the energy gap during early lactation and summer months.

**Why choose BoruCare® Capsin from Evonik?**

- Fully natural product – no solvent extraction
- Supports performance under heat stress and early lactation
- Improves nutrient digestibility and energy efficiency
- Proven to increase milk yield at a low inclusion rate
- Excellent handling and formulation flexibility




## PROVEN PERFORMANCE DURING HEAT STRESS AND EARLY LACTATION

A large-scale commercial study conducted during a 10-week heat stress period (average 5 hours / day above THI > 68) showed that supplementing 1 g of BoruCare® Capsin per cow per day delivers clear performance advantages compared to a basal diet.

**Key proven outcomes (see Figures 2 & 3):**

- Higher overall milk yield across the full herd compared to control cows.
- +1.2 kg / day increase in early-lactation cows (<100 DIM) – the most responsive and metabolically demanding group.

***Figure 2*** *Increased overall milk production with BoruCare® Capsin*

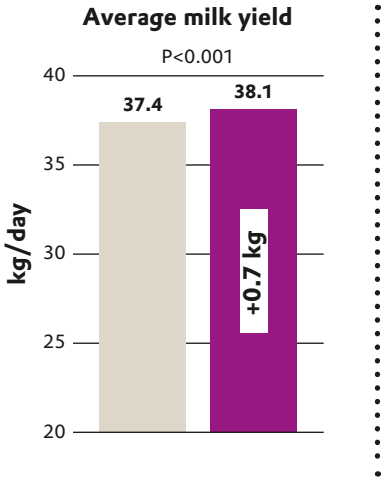
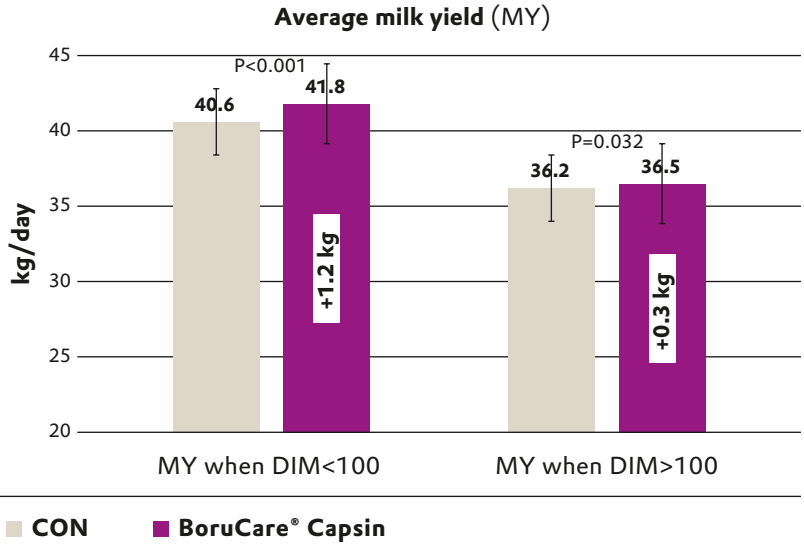



***Figure 3*** *Higher milk production during the first part of lactation with BoruCare® Capsin*



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