



RALLY®

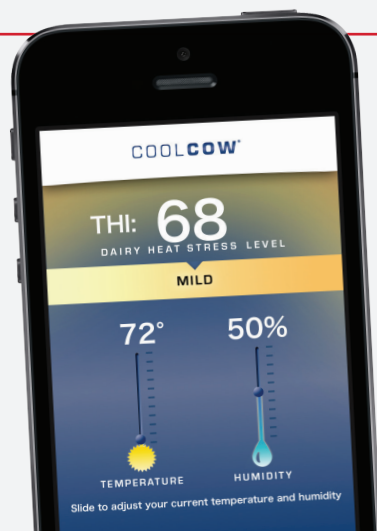
Combat the effects of heat stress

According to the Temperature Humidity Index (THI), cows can begin to show the effects of mild heat stress at 68 THI.³

Start feeding Purina® Rally® Dairy Feed early in the season to protect the profit potential of your herd.

DOWNLOAD THE FREE COOL COW® APP

to track heat stress conditions in the barn and get management and nutrition information.



HEAT STRESS AND AN ASSOCIATED 10%–35% MILK PRODUCTION LOSS¹ MAY COST A DAIRY \$1.60–\$5.60 PER COW PER DAY.² Hot weather and humidity are uncontrollable, but there are nutritional strategies to help lessen the effects of heat stress. Incorporate Purina® Rally® Dairy Feed into your herd's ration early in the season to help maintain milk production throughout the year — regardless of the weather.

Address heat stress in dairy cows nutritionally.

Heat and humidity impact dairy cows reducing feed intake while energy requirements increase. The cow has increased energy needs as she attempts to cool herself; a drop in dry matter intake (DMI), coupled with an increase in energy demand can quickly depress milk production.

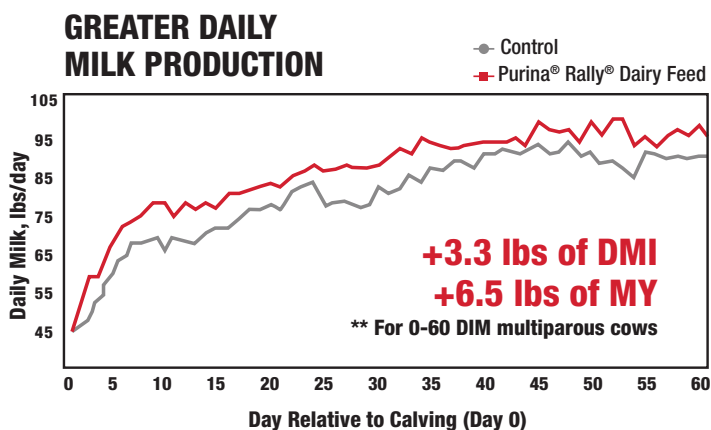
Impacts start up milk in fresh cows that continues through lactation.

Patented Purina® Rally® Dairy Feed technology allows you to efficiently deliver glucose and energy to cows when intakes are challenged. Purina® Rally® Dairy Feed provides benefits for transition and lactating cows during times of heat stress to:

- Address energy needs
- Maintain feed intake
- Deliver more milk during times of heat stress

In a Purina Animal Nutrition research trial, transition cows fed Purina® Rally® Dairy Feed showed⁴:

- **Improvement in daily milk — an average of 6.5 lbs**
- **Increase in dry matter intake**



¹ Rhodes et al, 2009 JDS Collier et al, 2012 Ruminant Nutrition Symposium

² Assumed a 100 lbs./cow at stated lost milk production, assuming \$16/cwt. milk price.

³ R. J. Collier, L. W. Hall, S. Rungruang and R. B. Zimbleman, Department of Animal Sciences, University of Arizona, Quantifying Heat Stress and Its Impact on Metabolism and Performance

⁴ DC525 and DC537



Purina® Rally® Dairy Feed delivers results

Research conducted at the University of Missouri looked at the effects of feeding Purina® Rally® Dairy Feed on: dry matter intake, milk yield, milk composition and plasma metabolites during an acute period of heat stress.

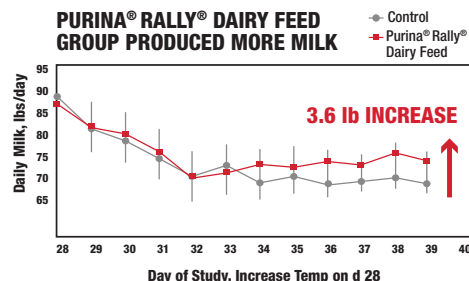
Data from the University of Missouri and Purina Animal Nutrition showed feeding **PURINA® RALLY® DAIRY FEED** during times of heat stress⁵:

- Improved milk production potential.
- Increased dry matter intake and feed efficiency.
- Lowered non-esterified fatty acid (NEFA) postpartum as well as during lactation.⁴
- Reduced beta-hydroxybutyrate levels.

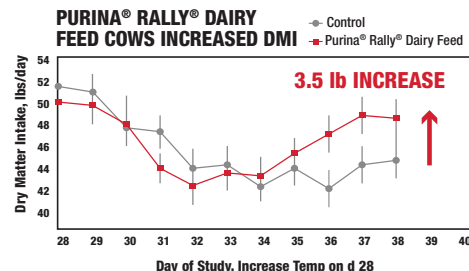
Research results continue to highlight the benefits of feeding Purina® Rally® Dairy Feed during periods of heat stress. The addition of Purina® Rally® Dairy Feed to diets, especially during warm seasons, can improve milk yield and dry matter intake in transition, early, and mid lactation cows.

Driving additional peak milk yield may lead to better performance for the entire lactation as those cows enter the cooler seasons.

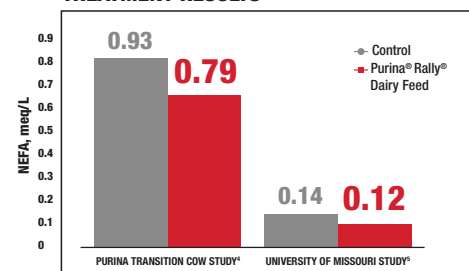
PURINA® RALLY® DAIRY FEED GROUP PRODUCED MORE MILK



PURINA® RALLY® DAIRY FEED COWS INCREASED DMI



SIGNIFICANT DIFFERENCE IN NEFA TREATMENT RESULTS



⁵ K. A. Davison, R. O. Rodrigues, J. A. Davidson, N. M. Barkley, A. L. Kenny, E. C. Adkins, and M. R. Waldron, University of Missouri, Columbia, Purina Animal Nutrition Center, Gray Summit, MO. Effects of a commercial feed additive on production losses during acute heat stress conditions in Holstein dairy cows, 2013 American Dairy Science Association Annual Meeting, Indianapolis, Ind.



CONTACT YOUR LOCAL PURINA ANIMAL NUTRITION EXPERT to learn about incorporating Purina® Rally® Dairy Feed into your ration.

purinamills.com/dairy-feed