



## Help Your Cows Handle the Heat with OmniGen® Nutritional Specialty Product.

Heat is one of many stressors that can affect your herd's health and productivity. Fortunately, research has shown that cows fed with OmniGen nutritional specialty product maintain healthy immune function and overall productivity better than cows who aren't, during and after heat stress conditions.

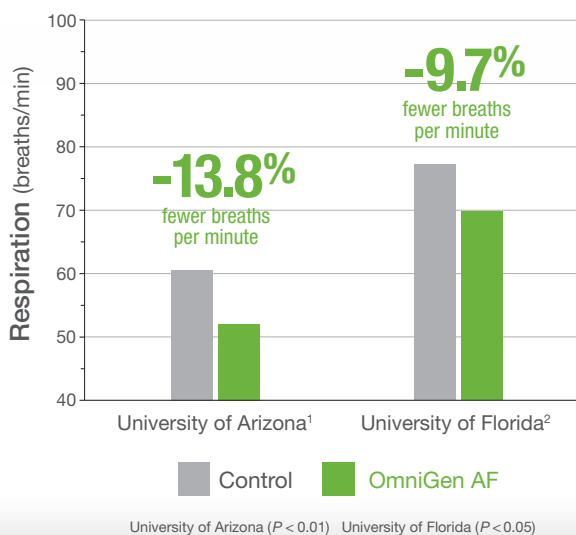
Here's a closer look at some important results from university and research trials.

### The OmniGen Difference Is Clear.

#### Respiration (Breaths/Min)

Helps reduce respiration rates (related to lower body temperature), which may improve metabolic efficiency.

#### REDUCED RESPIRATION VS. CONTROL DURING HEAT STRESS



#### A Step Ahead. Every Day.

Your dairy cattle may face immunological stressors every day. That's why we recommend feeding your dry, prefresh and lactating dairy cattle with OmniGen nutritional specialty product every day—to help promote a healthy immune system as demonstrated in research trials, for a healthy and productive herd.



#### Water Intake

Lower water intake during heat stress conditions.<sup>1</sup>



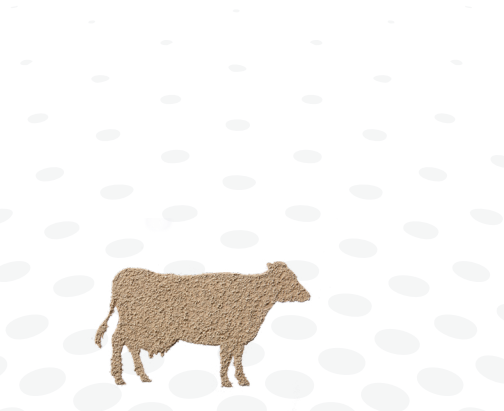
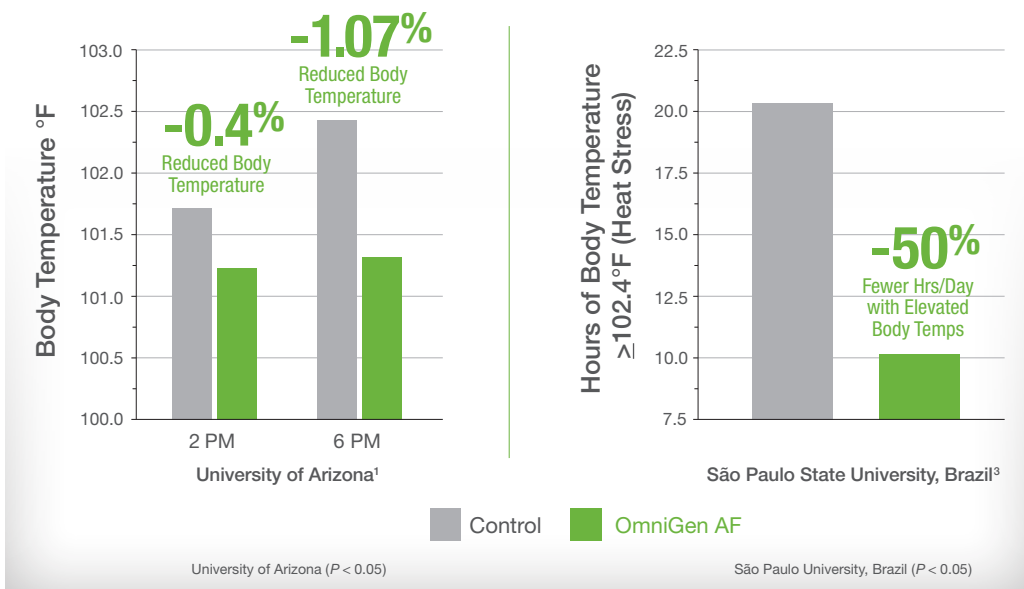
# Technical Bulletin

Information from Phibro Technical Services

## Body Temperature

OmniGen AF helps to regulate body temperature during periods of high temperature and humidity and reduce the hours per day with elevated body temperatures. This may lead to improved health and productivity as well as reduced reproduction delays associated with heat stress.

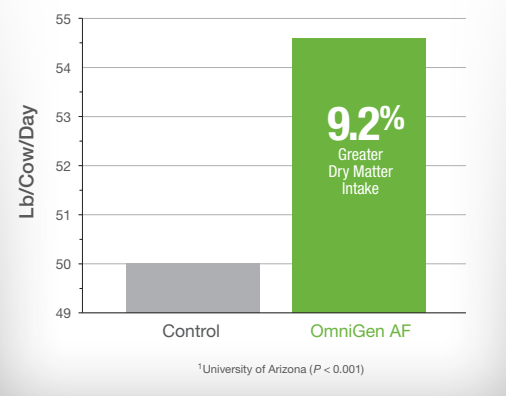
### BODY TEMPERATURE VS. CONTROL DURING HEAT STRESS



## Dry Matter Intake (Lb/Cow/Day)

OmniGen helps support dry matter intake in cows exposed to heat stress conditions to reduce or moderate losses in milk production.

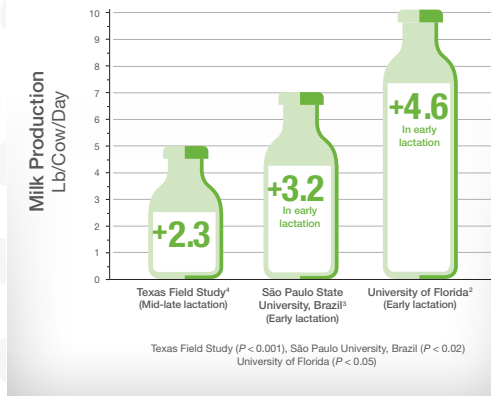
### DRY MATTER INTAKE ADVANTAGE VS. CONTROL DURING HEAT STRESS



## Milk Yield (Lb/Cow/Day)

OmniGen helps support improved milk yields during and following periods of high temperature and humidity.

### INCREASED MILK YIELD DURING HEAT STRESS



1 Hall, L.W., S.D. Anderson, F.A. Rivera, F. Villar, J.D. Chapman, N.M. Long, R. J. Collier. 2013 *Evaluation of OmniGen-AF in heat-stressed Holstein cows in lactation*. J. Dairy Sci. vol. 96. E-suppl 1 (abstract)

2 Fabris, T.F. Laporta, F.N. Corra, Y.M. Torres, D.J. Kirk, D.J. McLean, J.D. Chapman, and G.E. Dahl. 2017. *Effect of nutritional immunomodulation and heat stress during the dry period on subsequent performance of cows*. J. Dairy Sci. 100:6733-6742

3 Leiva, T., R.F. Cooke, A.P. Brandão, K.M. Schubach, L.F.D. Batista, M.F. Miranda, E.A. Colombo, R.O. Rodrigues, J.R.G. Junior, R.L.A. Cerri, J.L.M. Vasconcelos. 2017. *Supplementing an immunomodulatory feed ingredient to modulate thermoregulation, physiologic, and production responses in lactating dairy cows under heat stress conditions*. J. Dairy Sci. 100:4829-4838

4 Holland, A.E., J.D. Chapman and L.O. Ely. 2014. *Milk production, dry matter intake and body condition score evaluated in cross-bred commercial cows supplemented with OmniGen-AF during and following heat stress*. J. Dairy Sci. vol. 97, suppl. (abstract)

This information has been prepared for industry technical professionals.