

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

OMNIGEN-AF IMPROVE THERMAL COMFORT OF GRAZING DAIRY COWS UNDER A SEMI-INTENSIVE MANAGEMENT

Juliane DAMIANI^{1*}, Cibeli A. PEDRINI¹, Gleice Kelen R. da SILVA¹, Hayne M. C. ARAKY¹,
Euclides R. OLIVEIRA¹, Thais L. PEREIRA¹, Caio S. TAKIYA², Jefferson R. GANDRA¹

*corresponding author: jeffersongandra@ufgd.edu.br

¹Department of Animal Science, Universidade Federal da Grande Dourados, Rodovia Dourados-Itahum, km 12, Zip Code: 79804-970, Dourados, MS, Brazil.

²Department of Animal Sciences and Industry, Kansas State University, Manhattan, KS. 211 Call Hall. 66506.

OmniGen-AF[®] (OMN; Phibro Animal Health, Teaneck, NJ) is an immune stimulating feed additive. This experiment aimed to determine whether Omnigen-AF (OMN; Phibro Animal Health, Teaneck, NJ) influence on thermal comfort of cows under a semi-intensive management. The experiment was carried out in a commercial farm of Mato Grosso do Sul state in Brazil (77.8 of temperature-humidity). Thirty-six multiparous Holstein cows (136±52 DIM, 23.8±4.96 kg/d, and 512±65 BW, at the start of experiment) were used in a completely randomized experiment, being assigned to control diet or top dressed OMG (50 g/d, equal amounts in each meal) during 84 d. Cows were maintained in pasture of *Panicum maximum* (cv. Mombasa), excepted for periods of milking and meals (4 h/d). Cows received feed in individual bunks consisting of fixed amounts of corn silage (6.2 kg/d DM basis), and grain mixture adjusted according to (NRC, 2001). Infrared thermal images, respiratory rate, rectal and skin temperatures were performed on days 19, 20 and 21 of each experimental period, twice daily (8h00 and 16h00). The thermal camera using was (Testo 880, Brandt Instruments, Prairieville, LA, USA). The anatomical region assessed by thermal camera were the face, eye, and muzzle. Data were analyzed as repeated measures using the PROC MIXED of SAS 9.3, and data from the start of experiment were used to covariate adjustments. According to the data collected and the values of temperature-humidity (77.8) obtained during the experimental period, it was observed that the animals were on moderate to intense heat stress throughout the evaluation period. Cows fed OMN had lower ($P \leq 0.043$) rectal and body surface temperatures, and respiratory rate than those ones in CON. OMN reduced ($P \leq 0.050$) heat emission by infrared imaging temperature of face, eye, and muzzle of cows. OmniGen-AF[®] supplementation improved thermal comfort of grazing dairy cows under a semi-intensive management.

Keywords: heat stress, heat infrared emission, dairy production, organic additive, pasture

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Promoção e Realização:



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