

RECTAL TEMPERATURE AND CONCEPTION OF INSEMINATED CROSSBRED DAIRY COWS

TEMPERATURA RETAL E CONCEPÇÃO DE VACAS LEITEIRAS MISTIÇAS INSEMINADAS

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In tropical and subtropical regions animals suffer pronounced heat stress effect on reproductive function, being one of the most noticeable effects the reduction of conception rate. When evaluating animals heat stress, rectal temperature measurement is important tool because indicates heat release mechanisms became insufficient to maintain homeothermy. This study aimed to evaluate body temperature at fixed time artificial insemination of crossbred dairy cows and their conception at 30 days pregnancy. Experiment was performed from April 26, 2010 to January 28, 2012 at Estação Experimental Glória of Universidade Federal de Uberlândia, at Triângulo Mineiro, Brazil. One hundred-twelve crossbred dairy cows and heifers were used. At the moment of insemination, animals were housed in shaded pen and body temperature was collect using clinical thermometer introduced in rectal mucosa. Environmental variables collect were air temperature, maximum temperature, minimum temperature and relative humidity. Data were analyzed in two different periods: from April to September (mild weather-MW) and from October to March (hot weather-HW). The statistical model included the effect of category, period, pregnancy diagnosis and their interactions, comparing means by Tukey's test, with a significance level of 5%. Means and standard deviations of air temperature, maximum temperature, minimum temperature and relative humidity for MW and HW, were respectively, 23.85 ± 3.44°C and 23.15 ± 2.07°C; 29.16 ± 1.79°C and 29.84 ± 3.40°C; 16.20 ± 3.00°C and 21.06 ± 2.28°C; 82.72 ± 8.49% and 94.54 ± 4.66%. Rectal temperatures are presented on Table 1. Thermal environment of both weathers set up thermal comfort condition. Rectal temperature detected was within normal limits and it did not vary with pregnancy stage or weather condition, but was higher on heifers on mild weather probably because more reactivity behavior.

Table 1. Means of rectal temperature of heifers and cows on mild weather (MW) and hot weather (HW)

	Not Pregnant		Pregnant	
	MW	HW	MW	HW
Heifers	37.25 Ba	38.56 Aa	39.10 Aa	38.58 Aa
Cows	37.98 Aa	38.07 Aa	37.88 Aa	38.59 Aa

Means within same column (the same minuscule letter) and within same row (the same capital letter) do not differ significantly at P<0.05 (Tukey Test).

Keywords: body temperature, heifers, reproductive performance.

Acknowledgments: Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq).