

## Behavior of Holstein milking cows exposed to different environmental conditioning systems

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**Objectives:** The aim of the study was to evaluate the behavior of dairy cows in summer in relation to the environmental conditioning system (fans with or without misting).

**Materials and Methods:** Twenty Holstein lactating cows were allotted in free-stall pens, divided in two groups: VN ? with fans plus misting; V ? only with fans. The behavior was estimated as time standing and eating, ruminating and idling activities. Data were registered during 4 days by scan method, from 0600h to 1800h, with 30 minutes intervals.

**Results:** Air temperature and relative humidity were registered and indicated a heat stress situation, with maximum temperatures of 32°C and 87% of relative humidity. We observed high values of in standing posture and eating activity on 11h30, 1630h and 1700h hours of VN animals ( $P < 0.05$ ).

High frequency for ruminating and idling activities were found at 1700h and 1630h, respectively, for the V animals ( $P < 0.05$ ).

**Conclusions:** The use of fans as the only resource of thermal comfort in these experimental conditions was inefficient when compared to the combination of fans and misting, which give a better thermal comfort condition, allowing cows to feed for long periods, even during the hottest hours of the day, indicating less heat stress.