



## Performance of dairy cows under grazing alfalfa: nutritional Management for the winter season

Kuwahara F. A. <sup>1</sup>, Ferreira R. P. <sup>2</sup>, Tupy O. <sup>2</sup>, Costa C. <sup>1</sup>, Meirelles P. R. L. <sup>1</sup>, Moreira A. L. <sup>3</sup>, Ambiel A. C. \* <sup>4</sup>

\* Scientific Researcher, <sup>1</sup> University Estadual Paulista “Júlio de Mesquita Filho” – UNESP. College of Medicine Veterinary and Zootechny – FMVZ – Botucatu/SP - Brazil; <sup>2</sup> Brazilian Agricultural Research Corporation / Embrapa Southeast Livestock, São Carlos-SP, Brazil; <sup>3</sup> Embrapa Instrumentation, São Carlos-SP, Brazil; <sup>4</sup> Paulista Agency of technology Agribusiness – APTA, Presidente Prudente/SP, Brazil; <sup>4</sup> University of Oeste Paulista – UNOESTE, Presidente Prudente/SP, Brazil

\* frankkuwahara@hotmail.com

The intensive of milk yield systems, the high cost of the crop yield, saddled the economic sustainability of dairy activity. The quantities and percentages of concentrated ingredients, it's high to meet desired yield level. Thus, the alfalfa by high nutritional value allows the used as a substitute for part of the concentrated feed, with a reduction in the cost of milk yield and maintain the quality of the diet. In this way, the objective of this study was to evaluate the performance of 36 cows HolsteinXJersey crossbreed, average lactation stage, with the partial replacement of silage corn for alfalfa pasture. In a randomized block design, in 90 days of experimental time, composed of four treatments: control; one; two; and four hours of daily grazing in alfalfa. The grazing is rotated, and the amount of alfalfa corresponding to 3.0; 5.0 and 7.0 kg of dry matter (kg of DM.animal<sup>-1</sup>.day<sup>-1</sup>), for 1, 2 and 4 hours of grazing, respectively. The parameters evaluated were: milk yield, animal weight, milk quality and animal behavior. The average milk yield did not differ between treatments (P>0.05), whose averages were 29.17; 28.60; 27.87 and 28.34 liters.animal<sup>-1</sup>.day<sup>-1</sup> in the control group, 1, 2 and 4 hours of grazing, respectively. It were not reported significant differences (P>0.05), for animal behavior and milk quality, with the exception of treatment of 4 hours, who presented level of N-ureic in milk above the treatmento 1, 2 and 4 hours (P<0.05) and 19 mg/dL. The partial replacement of silage corn for alfalfa grazing not limited the productive animals performance and proved to be economically advantageous in relation to feedlot.

**Keywords:** dairy cows, *Medicago sativa* L., milk yield, corn silage, grassland