



## WELFARE & NUTRITION

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### IMPACT OF SUNFLOWER OIL SUPPLEMENTED DIET ON BEHAVIOR AND HEMATOLOGICAL STRESS INDICATORS OF GROWING-FINISHING PIGS EXPOSED TO HOT ENVIRONMENT

A. Oliveira<sup>1</sup>, S. Asmar<sup>2</sup>, N. Battlori<sup>3</sup>, I. Vera<sup>4</sup>, U. Valencia<sup>4</sup>, T. Borges<sup>1</sup>, A. Bueno<sup>5</sup>, L. Costa<sup>1</sup>.

<sup>1</sup> Pontificia Universidade Católica do Paraná, Curitiba, Brazil; <sup>2</sup> Mediterranean Agronomic Institute of Zaragoza, Zaragoza, Spain; <sup>3</sup> University of Lleida, Lleida, Spain; <sup>4</sup> College of Postgraduates Montecillo, Texcoco, Mexico; <sup>5</sup> Institut d'investigació de la Generalitat de Catalunya, Monells, Spain.

The objective of this study was evaluated the replacement of 5% starch per 5% sunflower oil (SO), in growing and finishing pigs diet, on behavior and animal welfare. Seventy-two crossbred males (51± 6,29 kg body weight-BW) were housed according to the initial BW, in climate-controlled rooms (collective pens), and exposed to heat stress conditions (30-32°C). The experiment lasted 90 days and the treatments studied were: 1) control diet (5% starch x 0% SO) with *ad libitum* feed intake (FI); 2) SO diet (replacement of 5% of starch per 5% SO) with *ad libitum* FI; 3) control diet with restriction FI or 4) SO diet with restriction FI. Hematological parameters were evaluated on all animals at the beginning of the environmental treatment, on the transition of feed and in the final of experiment. The general activity and position of the animals was evaluated by means of a scan sampling three times per day, during all the experiment. When animals reached BW of 130-140 kg, they were slaughtered by carbon dioxide stunning. To hematological parameters, the hematocrit levels were higher at the end than at the beginning of the experiment. In addition, leucocytes count, although decreased from the beginning to the end of the study, was by far higher than the normal range for this species during all the study. To the behavior parameters, it was found that the pigs lied laterally mainly at noon when the temperature was increased to 30°C, and sternly most frequently during the afternoon and morning when the temperature was maintained at 25°C. In addition, it was shown that pigs fed *ad-libitum* were sleeping more laterally than those fed restricted. Experimental treatments were not able to reduce the hematological stress indicators. In addition, pigs fed restricted were less sensible to the heat stress than pigs fed *ad-libitum*.