

## MEAT QUALITY OF PIGS SUBMITTED TO DIFFERENT WATER SPRAY PERIODS

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During lairage, stress caused by unfavorable environmental situations may increase the release of adrenergic and corticotropic hormones (HENCKEL, et al., 2002), besides increasing the incidence of pale, soft, exudative (PSE) red, soft, exudative (RSE) meat (HENCKEL, et al., 2002). In lairage pens, this situation can be lessened using water sprays. Due to the importance of this procedure, the meat quality of pigs submitted to different water spray periods was evaluated.

The experiment was done in March 2010, in western Santa Catarina, Brazil, where the temperature varied from 20 to 23°C, utilizing 315 barrows submitted to three water spray periods: 30 minutes (15 min upon arrival at the pen and 15 min at exit), 60 minutes (30 min upon arrival at the pen and 30 min at exit) and 360 minutes (continuous water spray use) during the 6-hour lairage period following Law No. 711 from November 1, 1995 (BRASIL, 1995). The pigs were randomly distributed in three pens (1 pen/treatment), density of 0.60m<sup>2</sup>/100 kg, and 45 pigs were evaluated. The following were evaluated: pH, color (CIELAB system), water loss by exudation, loss by cooking, *Longissimus dorsi* (LD) muscle texture. The averages of the analyzed variables were compared by Student's t test protected by global significance of F test, through GLM procedure (SAS, 2008).

The average values of the qualitative parameters of LD muscles did not present any difference ( $p \geq 0.05$ ) among the treatments, fitting in normality standards (CORREA, et al., 2007). The only exception was the average values of pH<sub>1</sub> presented differences ( $p \leq 0.05$ ), because the LD muscles of pigs submitted to continuous water spray were similar to the ones in intermittent water spray, but they were different among themselves and the 30-minute water spray treatment presented lower averages values of pH<sub>1</sub> ( $6.40 \pm 0.05$ ).

Our results differ from the ones by Wedding, et al., (1993) and Knowles, et al., (1998) who found alterations in meat when the effect of water spraying was evaluated on pigs in lairage. This may be explained quality by the environmental conditions in the region of western Santa Catarina; therefore, the continuous water spray is less indicated because it uses a greater water amount, becoming economically unviable and worsening environmental problems.