

Title: Infrared Thermography of Market Hogs as a Predictor of Pork Quality -
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Abstract: Infrared thermography (IRT) was used as a non-invasive, rapid method of detecting pigs with surface temperatures warmer and/or cooler than normal, to predict pork quality. We used four replications consisting of a total of 556 pigs (154, 98, 145, 158, respectively) were conducted in ambient temperatures ranging from -2 to 26°C (9 to 14, 21 to 26, -2 to 1, 6 to 9, respectively). Hot pigs (higher than 1.3 sd from the mean) in replications 1 and 4 had a higher percentage of “high expressible moisture pigs” (EM>170 mg/g) than normal pigs (44 vs. 31% and 36 vs. 12%, respectively). Cold pigs (lower than 1.3 SD from the mean) in replication 2 (pigs were misted with water) had a higher percentage of “high expressible moisture” pigs (EM>170mg/g) than normal pigs (44 vs. 22%). However in replication three where environmental temperatures were the coldest, no differences in the percentage of high expressible moisture pigs were detected. Infrared thermography detected pigs more susceptible of producing poor meat quality, but the effectiveness of infrared thermography was dependent on environmental conditions, which may trigger physiological changes in the flow of blood to the skin’s surface.

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