

ANIMAL WELFARE

Title: Comparison of Handling Attributes and Physiological Indicators of Stress and Welfare During Marketing of Pigs from Conventional Small Pens and Large Pen Auto Sort – **NPB #05-137**

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I. Abstract

Two hundred forty pigs raised in either conventional small groups (16-18 pigs/pen) or in large groups with auto-sort facilities (approx. 250 pigs/pen) were marketed on 10 days to assess differences in response to handling and meat quality. Pigs were loaded in groups of 4 pigs up a ramp onto a trailer. Transportation to the packing plant was 45 min in length and lairage was approximately 4 hours. Behavioral and physiological measures were taken prior to, during and after the handling and transport process. Standard meat quality assessment was conducted on loins from the animals 24 h after slaughter.

Pigs from small groups evidenced elevated rectal and ear surface temperatures early in the handling process, but no differences were found after arrival at the packing plant. Difficult groups of pigs were encountered when loading in both treatments, and similar levels of force, generally involving the use of the electric prod, were used. Pigs from small groups tended to take longer to load up the ramp than did pigs from large groups (78.7 vs 52.6 sec/group; $P < 0.10$). Meat quality differences were minor, with pigs from small groups having more marbling. No differences in meat quality scores reflective of differential responses to handling were evident. Handling assessments tended to favor pigs from large groups, but differences were minor, and no effect on meat quality was evident.

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