



The Effect of Increased Pork Hot Carcass Weights and Varying Chop Thicknesses on Consumer Visual Appearance and Purchase Intent Ratings of Top Loin Chops

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Objectives

The objective of this study was to evaluate the effect of increased pork hot carcass weights on consumer visual acceptability and purchase intent ratings of top loin chops cut to various thicknesses in a price labeled versus unlabeled retail display scenario.

Materials and Methods

Pigs in this study were intentionally raised to reach heavier hot carcass weights when compared to industry standards. Pork loins ($N = 200$) were collected from 4 different hot carcass weight groups: a light weight (LT; less than 111.8 kg), medium-light weight (MLT; 111.8 to 119.0 kg), medium-heavy weight (MHVY; 119.1 to 124.4), and a heavy weight (HVY; 124.4 and greater). Loins were fabricated into 4 pairs of chops of specified thicknesses (1.27, 1.91, 2.54, and 3.18 cm) at Day 7, 8, or 9 postmortem. For each chop loin eye area, length and width were measured. One chop from each specified thickness was then randomly assigned to be packaged with a label containing package price and weight information. The other paired chop was packaged without a label. Consumers ($N = 393$; 8 per panel) from the Manhattan, KS, area assessed chops from each weight group \times thickness combination in both labeled and unlabeled scenarios. Chops were assessed on a 0 to 100 continuous line scale for desirability and purchase intent. Consumers were also able to indicate “yes” or “no” if the chop was either desirable and if they would purchase the chop.

Results

As hot carcass weight increased, there was an increase in loin eye area and chop length, with chops from HVY carcasses having greater ($P < 0.05$) loin eye areas and lengths compared to all other weight treatments. For both appearance and purchase intent ratings, chops from HVY carcasses were given higher ($P < 0.05$) ratings compared to LT chops. Additionally, consumers gave greater ($P < 0.05$) appearance ratings to thicker cut chops. There was a hot carcass weight \times chop thickness interaction ($P < 0.05$) for the percentage of consumers that indicated the chop was desirable overall. Regardless of hot carcass weight treatment, chops with a thickness of 1.27 cm had the lowest ($P < 0.05$) percentage of consumers indicate they were desirable overall. Within the LT and MLT weight treatments, chops with a thickness of 1.91 and 2.54 cm were similar ($P > 0.05$) with the greatest ($P < 0.05$) percentage of consumers who indicated they were desirable. Within the HVY weight treatment, chops with a thickness of 2.54 cm had the greatest ($P < 0.05$) percentage of consumers who indicated they were desirable. A greater ($P < 0.05$) percentage of consumers indicated “yes” they would purchase chops cut to a thickness of 2.54 cm compared to all other thicknesses. Additionally, there was a greater ($P < 0.05$) percentage of consumers who indicated they would purchase chops that were unlabeled compared to chops labeled with weight and pricing information.

Conclusion

These results indicate that carcass weight and chop thickness can affect consumer preference and purchasing decisions. Thus, both should be considered by retailers when marketing fresh pork top loin chops.