Title: The Impact Of Marbling On Consumer And Trained Taste Panel Acceptability -NPB# 05-094

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Abstract:
Previous research has demonstrated conflicting results pertaining to the effects of marbling on the sensory characteristics of pork loin chops. The current research was undertaken to help understand the effects of marbling on the sensory properties of fresh loin chops when certain variables are controlled. It is widely accepted that variables such as genotype and pH will affect eating quality of pork. It has also been noted that production system, diet, slaughter date, and other factors can also introduce variation. This study was designed involving one genetic line, a standardized production system, one harvest date, and controlling for pH.

A population of 155 boneless pork loins with a uniform distribution of marbling, or extractable lipid, was consumed by a trained sensory panel at three degrees of doneness (62°C, 71°C, and 80°C). A subset of this population was consumed by a consumer panel at one degree of doneness (71°C). The results have demonstrated that the amount of intramuscular fat or extractable lipid has very minor effects on the sensory characteristics of pork loin chops cooked to three different degrees of doneness as determined by a trained panel. Differences found by consumers between the varying degrees of marbling were also minimal. The data also indicated that consumers are much more likely to select lean chops from a retail case than chops displaying a higher amount of marbling.