

## PORK QUALITY

**Title:** Relationships Between Loin Color, Chop Thickness, Cooking Method, Water-Holding Capacity and Tenderness For Pork Cooked To 62.8°C, **NPB #18-140**

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**Scientific Abstract:** Consumer research has consistently shown that consumers over-cook pork creating a subpar eating experience. Understanding the relationship between loin color, cut thickness, cooking method, water-holding capacity and tenderness from chops and roasts cooked to 62.8°C is crucial. Twenty pork boneless chops, blade chops, bone-in chops, tenderloin roast and boneless loin roasts from color score 2 and 4 (National Pork Board color score cards, Des Moines, IA) pork loins in the blade-end lean surface. Prior to cooking, drip loss, pH and raw color were determined. Chops and roasts were then cooked to 62.8°C either by baking, grilling, pan frying, or pan-sautéing. Cook yield, cook time, tenderness assessed by Warner-Bratzler shear force, and cook color were measured and recorded. Cooking method and chop thickness affected ( $P < 0.05$ ) cook yield and cook time. Baked chops had the longest cooking times and pan-sautéed chops had the highest cook yields ( $P < 0.05$ ). Grilled chops had the highest ( $P < 0.05$ ) cook loss. The blade and boneless chops from color score 4 loins were more tender than the same chops from color score 2 loins. However, for bone-in chops, the inverse was reported ( $P < 0.05$ ). Thickness had minimal effect on Warner-Bratzler shear force values ( $P > 0.05$ ). Although bone-in and boneless, baked chops had the longest cooking times, they were the most ( $P < 0.05$ ) tender. Overall, this study revealed that color, cooking method, and thickness impacted drip loss, cook yield, cook time, cooked color, and tenderness of blade, boneless, and bone-in chops, tenderloins, and roasts.

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