Quality of fresh pork from pigs finished in confinement and hoop systems.

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A consistent supply of pork with excellent color, texture and water-holding capacity is an essential component to improving the ability to add value to pork. Definition of production and processing procedures that influence pork quality is required to ensure a consistent supply of high quality fresh pork. The objective of this study was to examine the effects of finishing environment on carcass and meat quality traits. Four hundred crossbred (Musclor x Duroc x Large White x Landrace) pigs were finished in northwestern Iowa during the months of July - October 2003 in two different finishing environments. Finishing environments included standard ventilated confinement and hoop structures. Hoops are deep bedded, open-ended structures with a fabric roof. Nutrition, age and management were standardized across the two environments. All data were collected at a commercial processing facility. Pigs were slaughtered at approximately 123 kg live weight. Carcass measurements of backfat thickness, loin eye depth and hot carcass weight (HCW) were evaluated. One hundred sixty carcasses were randomly chosen for meat quality assessment. Evaluation of right side loins included National Pork Board color, firmness, marbling, and wetness scores, 24 hour pH (pHu), CIE L* a* b*, hue angle and saturation index. Loins were measured on the blade end of the longissimus dorsi at the 4th thoracic vertebrae. Hoop-finished pigs had higher HCW and lean firmness values ($P<0.05$) compared to the confinement-finished hogs. Finishing environment did not affect back fat thickness or loin eye depth ($P>0.05$). Loins from pigs finished in the two environments did not differ ($P>0.05$) in quality measurements of NPB color, marbling, and wetness scores, or pHu, CIE L* a* b*, hue angle or saturation index scores. These data indicate that there were no substantial differences in fresh pork quality in loins from pigs finished in different systems. Hoop-finished pigs exhibited a higher HCW and greater loin firmness scores compared to confinement pigs. The effect of finishing system on product firmness is an interesting observation that merits continued investigation.