

The Effects of Non-vacuum Packaging and Submersion in Chilled Salt Water on Meat Quality of Pork Loin

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To investigate the effect of non-vacuum packaging(NVP) and submersion in chilled salt water(SCSW) on meat quality, a total of eight pork loins were selected from a commercial meat plant at 24 hr postmortem. The loins were cut to 2.5cm thick steaks and were randomly assigned to the five treatment combination; vacuum packaging(VP) and SCSW (T1), NVP and SCSW (T2), VP and storage in conventional refrigerator (SCR) (T3), NVP and SCR (T4), and wrap packaging(WP) and SCR (T5). All samples were stored at 0°C for 20 days to measure purge loss %, drip loss %, lipid oxidation (TBARS; thiobarbituric acid reactive substances), total plate counts (TPC), and meat color (CIE L*a*b*). T2 showed the lowest purge loss % where T3 remarked the highest purge loss %. However drip loss % did not significantly($P<0.05$) differ among treatments. These results imply that NVP and SCSW positively effects the water holding capacity of pork loin. The samples of SCSW showed significantly($P<0.05$) lower TBARS and TPC than those of SCR during storage. CIE L* value of VP samples was lower than others, but there were no significant differences among treatments for CIE a* and b* values. These results suggested that NVP and SCSW could reduce purge loss and extend shelf-life of pork loin without changes in meat color.