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Water Losses by Meat Processing of Meat from Native Cattle from Lamphun and Lampang Provinces, Thailand

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Abstract

The major part of beef cattle produced by small farmers in northern Thailand is native cattle either of the breed White Lamphun Cattle or general native cattle. Although some farmers can produce meat of good quality generally the produced meat is of poor quality and not suitable to meet the yearly increasing demand for good quality meat. A comprehensive improvement of the quality of native cattle meat is necessary. The objective of this research is to evaluate the meat quality especially the water loss in meat of 1-2 years old Whith Lamphun Cattle and general native cattle (n=25) from Lamphun and Lampang provinces in northern Thailand. Data was collected in the summer season and in the rainy season. The results show that there was no effect of season on percent drip loss of meat of general native cattle from Lamphun province but the drip loss of their meat was lower than of the meat from White Lamphun Cattle of the same province and of meat from both groups of native cattle from Lampang province ($p < 0.01$). The percent of thawing losses in meat of White Lamphun Cattle was lower than in meat of general native cattle ($p < 0.01$). The thawing losses in meat of White Lamphun Cattle were lowest ($p < 0.01$). Cooking losses (%) in meat of White Lamphun Cattle was not different to the cooking losses in rainy season meat from native cattle from Lamphun province but the losses were lower than for other groups ($p < 0.01$). These results show that both the genetic difference as well as some environmental factors especially temperature and moisture which prevail in different seasons can affect some meat quality parameters.

Keywords: Native cattle, water losses, White Lamphun cattle

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