Variability in quality traits of traditional processed meat from young bulls – breed and environment effects

Summary
The influence of two fixed factors: breed (Charolaise and Limousine) and environment (4 different farms) was analysed. A sample of Longissimus thoracis muscle was excised from young bulls within 24 h post-slaughter, vacuum packaged and stored at 2 ±0.5°C until 3 and 7 days post-slaughter. The following quality parameters were examined: pH, Warner Shear Force, water losses (drip and cooking loss), Myofibrillar Fragmentation Index and colour (Lightness, Chrome, Hue). The most important factor was environment. Significant differences between farms were found in all meat quality traits examined in this study. For breed factor significant differences were found on all physical parameters, except of meat colour, where significant effect of breed was found only in meat Hue after 7 days of storage. This result is very important because visual appearance of meat product determines a consumer's response. Now further research is required in order to identify farm critical points responsible for variability in meat quality traits.