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The EUROP carcass grading system does not predict the eating quality of beef

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The European beef grading systems of EUROP and Carcass Fatness are used to determine carcass value throughout Europe. We investigated the relationship between EUROP class and eating quality. Six cuts (the Striploin, Outside, Rump, Tenderloin, Oyster blade and the Topside) from 18 French cattle were grilled, medium or rare. In total, 540 untrained French consumers rated the steaks for Tenderness, Flavour, Juiciness and Overall Liking, according to MSA protocols, and these scores were combined on a weighted basis (0.3, 0.3, 0.1, 0.3 respectively) to make a fifth term called Meat Quality score (MQ4). During processing the cattle were graded using the European 'EUROP' and 'Carcass Fatness' systems. The sensory scores were analysed using a mixed linear model with cut, age and EUROP score included as fixed effects, and animal ID as a random term. Due to the low numbers of animals, Carcass Fatness scores were selected from the limited range of 3-, 3= and 3+ and hence do not significantly influence eating quality. In all cases, the sensory scores differed between the EUROP classes. However, these differences followed no clear linear trend across EUROP classes within any of the cuts tested. Thus, while the EUROP system may adequately describe carcass muscling characteristics, it does not predict eating quality. The industry should consider using a system more related to eating quality to determine the monetary value of carcasses, rewarding those producers supplying the meat most preferred by consumers.