

Abstract by Thierry Pabiou - Carcass video image in genetic evaluation and breeding programs

The objective was investigated the feasibility of breeding for phenotypes predicted from video image analysis (VIA). In meat factories in Ireland, digital images are routinely taken after slaughter to derive EUROP conformation and fat grades. Two datasets (1,048 carcasses in total) on individual carcass dissections were made available for this study, one by a research center and the other by a commercial partner. Dissection data consisted of eight and six primal cuts taken in the hind- and fore-quarter, respectively, and analyses revealed significant genetic variations in these data. Heritabilities of primal cut weights ranged from 0.03 to 0.83 in the fore-quarter cuts, and from 0.14 to 0.86 in the hind-quarter cuts. Primal cut weights were subsequently grouped into four wholesale cut weights according to their retail values: lower value cuts, medium value cuts, high value cuts, and very high value cuts. Equations to predict wholesale cut weights were subsequently derived from VIA image parameters. Accuracy of prediction were >0.84 and >0.72 in the steer and heifer datasets, respectively.