

**Effects of different periods of feed restriction before compensatory growth on performance in Belgian-Blue bulls**

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Compensatory growth is the ability of an animal to exhibit rapid development after a period of reduced growth. A total of 40 Belgian-Blue double-muscled type bulls were divided in 4 groups. The first group (control, CG) was offered a fattening diet allowing for rapid growth. The animals of the 3 other groups were given a low plane of nutrition diet to sustain a live weight gain of 0.5 kg/d during 115 (G2 group), 239 (G3) and 411 (G4) days. They were then offered the fattening diet as CG. The average daily gain during the fattening period was 1.32, 1.51, 1.43 and 1.53 kg/d in CG, G2, G3 and G4 respectively ( $p < 0.10$ ). The change over time of average daily gain was best fitted by a cubic relationship ( $r^2$  of 0.65, 0.81 and 0.81 for G2-G3 and G4). The bulls were slaughtered when daily gain was below 1 kg/d over 2 fortnightly records. The slaughter and carcass weights were 620.6-398.9; 613.4-390.4; 630.2-396.2 and 693.3-447.0 kg in CG, G2, G3 and G4 respectively ( $p < 0.05$  and 0.01). The carcass composition was characterized by a larger proportion of muscle ( $p < 0.05$ ) in CG as opposed to G2, G3 and G4. Meat temperature dropped more quickly in the carcass of CG ( $p < 0.001$ ) while the opposite was found for pH ( $p < 0.05$ ). Surprisingly, the fat content of meat was lower in the animals which exhibited compensatory growth ( $p < 0.10$ ). The percentage of saturated fatty acids decreased by extending the length of the low growth period ( $p < 0.01$ ).