Compensatory growth in double muscled Belgian Blue bulls after feed restriction either indoors or at pasture: animal performance, carcass and meat characteristics. J.L. Hornick1, C. Van Eenennaam1, A. Clinquart2, V. Minel1 and L. Istasse1. 1 Service de Nutrition. 2 Technologie des denrées alimentaires. Faculté de Médecine Vétérinaire, Université de Liège, 1000 - Liège, Belgium.

Fourteen double muscled Belgian Blue bulls fattened on a concentrate diet based on sugar beet pulp (control group, CG) were compared with animals previously submitted at a period of low growth and then offered the concentrate diet as the control animals (compensatory growth group, CGG). In CGG, 30 bulls were offered indoors a restricted amount of straw based diet, while 16 others were grazed at 6 or 10 bulls/ha. Animals were slaughtered according to similar fattening state. During the compensatory growth, the average daily gain was 1.47 kg/d in CGG as opposed to 1.31 kg/d in CG (P < 0.05). The corresponding feed intake were 10.98 vs 9.69 kg/d (P < 0.01). The proportion of muscle in the carcass was reduced (P < 0.10) and that of adipose tissue was increased (P < 0.1). The meat in the CGG had larger cooking losses (P < 0.01) and higher tenderness (P < 0.05). The fat content of meat was reduced (P < 0.05) and that of protein increased (P < 0.01). There was higher polyunsaturated fatty acids content (P < 0.2) in the fat of the CGG. Low growth period indoors reduced the economic profit (3500 vs 5662 BF). By contrast, a grazing period allowed a larger profit (7497 BF) at a stocking rate of 6 bulls but only 1784 BF at 10 bulls/ha.