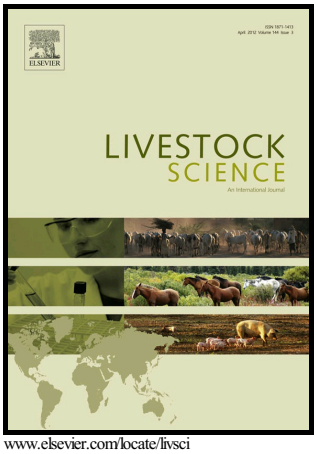

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Abstract

Forty grass fed beef steers close to slaughter weight (500 kg) were used to study the effects of season (one experiment was carried out in autumn and one in summer, same farm, same design), supplementation (grass-fed only=control or flaked corn supplemented=suppl during four weeks before slaughter) and fasting during lairage (0h or 24h fasting). The supplementation with flaked corn started with 0.5 kg animal^{-1}day^{1}, fed individually and increasing up to 1% of body weight (approximately 5 kg animal^{-1}day^{1}) during the first week; this amount was kept constant for three more weeks.The concentrations of muscle glycogen (MGC), glucose-6-phosphate+glucose (G6P+Gluc) and lactate (LA), glycolytic potential (GPot), activity of AMP-activated protein kinase (AMPK), glycogen phosphorylase (GP) and glycogen debranching enzyme (GDE) were

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