

IMPACTS OF LATE GESTATIONAL TALL FESCUE FORAGE SYSTEMS ON PREWEANING CALVES

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ABSTRACT

A 2-yr experiment was conducted researching the impact of common lower Midwestern beef cattle winter forage systems on late gestation, spring-calving beef cows and their subsequent calves. We hypothesized that cows grazing stockpiled tall fescue (STF) during late gestation would have increased nutrient intake compared to cows fed summer-baled tall fescue hay (HAY), which would result in improved fetal growth and development, as well as subsequent calf performance and metabolic status. Overall, cows consuming HAY lost more BCS prepartum than cows consuming STF. In yr 2 HAY cows gained more BW prepartum than STF cows, but there was no difference between forage systems in yr 1. Calves born to cows consuming HAY weighed less at birth than calves born to STF cows, suggesting decreased fetal growth. Despite this, in yr 2 there were no differences in calf vigor measures at birth or in triiodothyronine, thyroxine, or cortisol concentrations at 48 h. Additionally, calves born to HAY cows tended to weigh less at d 80 than STF in yr 1, but in yr 2 there was no difference. During yr 1 blood urea nitrogen (BUN) was greater at 48 h for calves born to cows consuming STF and plasma glucose concentrations tended to be greater through weaning for STF calves. Despite this, impacts of late gestation maternal nutrition on calf amino acid concentrations at 48 h varied. In conclusion, grazing stockpiled tall fescue in late gestation appears to improve fetal growth and alter perinatal nutrient supply in calves.