

# Overstocking the Feed Bunk May Affect the Welfare and Productivity of Dairy Cows and Calves

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Overstocking has been shown to have profound behavioral and physiological consequences, both of which negatively affect the health and welfare of the cow. However, it is unknown if overstocking during late-gestation also effects the welfare of the developing calf. The goal of the present study was to investigate the potential negative effects of overstocking cows at the feed bunk during different stages of the dry period may have on the growth and welfare of their offspring. One hundred twenty dry cows were blocked and assigned to one of four treatment groups with different stocking density conditions (Overstocked (OS): 0.88 headlocks/cow; Understocked (US): 1.17 headlocks/cow). The four treatment groups included: a) 60 to 1 OS, 0 US, b) 60 to 26 OS, 25 to 1 US, c) 25 to 1 OS, 60 to 26 US, and d) 0 OS, 60 to 1 US prior to calving. The calves' treatment assignment (32 per treatment) reflected the treatment assignment of their dam. Body weight (BW) at birth was recorded for all calves, and wither height (WH) and hip height (HH) measurements were obtained at birth for heifer calves only. Gestation length was similar ( $P = 0.52$ ) among treatments: a) 276, b) 274, c) 275, and d) 276 d. Likewise, results showed that there were no significant differences observed between the experimental groups with regard to calf BW (42.2, 42.1, 40.4, and 43.1 kg, respectively;  $P = 0.41$ ). Overstocking during the dry period also did not affect either WH or HH measurements. In conclusion, overstocking cows at the feed bunk during the dry period did not compromise fetal growth in our study. However, further research should be conducted to determine the potential consequences of overstocking both the feed bunk and lying stalls on fetal development and postnatal calf welfare.