# 155-AGR

**Reproductive performance of straightbred Dexter and Mashona x Dexter F1 heifers**

This study measured the performance of straightbred Dexter and Mashona x Dexter F1 crossbred heifers. Dexter cattle are a Bos Taurus, small heritage dual purpose breed originally from Ireland. Mashona cattle are a sanga beef breed from Zimbabwe, a rare breed. The purpose of crossbreeding with the heat tolerant Mashona cattle was to address adverse effects of climate change on cattle performance. Over a span of three years, a total of 30 straightbred Dexter and 27 crossbred F1 heifers were bred to Dexter bulls for Spring calving. The cow traits were fertility, total pounds weaned, and breeding weights. Dexter heifers had a lower calving rate than the F1 crosses (47% vs 78%; $p < .05$). Dexter heifers weaned a lower weight than the F1 crosses (56.56 ± 31.98 kg/cow exposed vs 121.01 ± 32.35 kg/cow exposed ; $p < .05$). Heifer breeding weights were heavier for the F1 crosses compared to the straightbred Dexter (196 kg ± 6 kg vs 164 kg ± 6 kg ; $p < .05$). There weren't enough observations to run statistics on calf performance. The birth and weaning weights of the 14 straightbred Dexter calves were 21.09 ± .88 kg and 132.04 ± 43.83 kg, respectively. The 21 calves from the Mashona x Dexter cows had birth and weaning weights of 19.31 ± .73 kg and 150.16 ± 43.05 kg, respectively. Numerically, the F1 crosses outperformed the straightbred cows for calf weaning weight. The cow crosses have higher fertility rates and produce more weight at weaning than the straightbreds. Cow fertility is a primary driver of beef herd profitability. Hybrid vigor and heat tolerance may have contributed to the enhanced performance seen in the F1 cows. The use of rare Mashona genetics seem to be advantageous in a summer breeding-spring calving beef production system. This breed evaluation research is ongoing.