WARSAW, Mo. – Selecting replacement heifers for beef cow/calf producers involves the consideration of many traits in order to try to select and develop heifers with the most likelihood of successfully breeding, calving, rearing the calf, and rebreeding within the first 3 years of life. Research at the University of Nebraska looked at another trait, the age of the dam on heifer and steer productivity, and was reported in the 2016 Nebraska Beef Cattle Report. Information below is taken from that report.

Heifer calves born from 2-year-old dams had lower birth weight, lower adjusted 205-day weaning weight, lower pre-breeding body weight and lower body weight at pregnancy diagnosis. These heifers tended to have a lower cycling rate compared to heifers from older dams, but no difference in pregnancy rates was observed in the first breeding season. However, these heifers had lower pregnancy rates in the second breeding season.

Heifers born from cows 4 to 9 years old had more calves born in the first 21 days of the calving season, greater body weight and body condition score at calving and greater body condition score when their first calf was weaned.

Steer calves born from 2-year-old dams had lower birth weights and adjusted 205-day weaning weights. These steers produced more marbled, but lighter, less muscled carcasses than steers from older dams.

As age of dam increased, steers had heavier hot carcass weights and greater rib eye area until dam age was 7 to 8 years old, then offspring performance decreased.

The bottom line seems to be that selecting replacement heifer prospects from cows 4 to 8 years of age will result in heifers that will have more calves in the first 21 days of the breeding season and produce heavier calves at weaning. This additional weight will carry through to both steer carcass weight and heifer body weight and body condition score at calving and greater body condition score when their first calf is weaned.
Many factors go into selecting and developing replacement heifers. Age of the heifer’s dam appears to be an additional factor to consider. This research indicates as age of dam increases, offspring performance increases until age of dam reaches 7 to 8 years, and then offspring performance began to decrease.

This is one more reason to develop and utilize production records for your operation.

If you have additional questions, please contact me by email at schmitze@missouri.edu or by calling the Benton County Extension office at (660) 438-5012.