

Novelty and Ho-hum of Beef on Dairy

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Technological advances in cattle biology have spotlighted the opportunity to increase calf sale revenue by the dairy herd enterprise. The commercial availability of sexed semen enabled dairy herd managers to produce and over-produce replacement heifer calves. Genomic evaluation of dairy females enabled selection of herd replacements without dependence on future milk production records. Also, improvements in estrus management and cow comfort resulted in conception rate increases in well-managed dairy herds. The eventual outcomes resulted in the ability of herd managers to produce an ample supply of genetically elite dairy replacement heifers while utilizing less than 50% of the cow herd.

Holstein, Jersey and their crossbreds dominate the breed composition of the U.S. dairy herd. Male dairy calves have always been valued less than male beef (native) calves, and Jersey males were almost without market interest. In addition, the excess supply of dairy heifer calves resulted in low heifer calf values. While the sale of dairy calves is a small proportion of dairy herd enterprise revenue, dairy herd managers sought to improve this revenue and artificial insemination (AI) companies were involved in the deliberations because they were supplying the sexed dairy semen. Creative minds viewed the price premiums commanded by black-hided finished native cattle and then resourcefully began to inseminate the genetically less desirable cows with cheap semen from any bull that would result in a black-hided calf without dystocia.

The native beef industry initially reacted with denial that high-quality beef could be produced by dairy crossbred steers and heifers, and later with the attitude that a new source of high-quality beef had been discovered through the beef on dairy mating system. Those who were familiar with the growth, finishing and harvest of high-energy-fed Holstein steers had none of the euphoria of the native beef industry because they had developed markets for Holstein beef that acknowledged its high quality attributes. The early matings with semen from any black-hided native bull resulted in a heterogenous population of finished cattle, unlike the homogeneous nature of high-energy-fed Holstein steers.

The important components of the price discount assigned to finished dairy steers and heifers, versus their native counterparts, are lower dressing percentage and lower meat-to-bone ratio. Beef quality does not factor into the price discount. Therefore the principal challenge facing the beef on dairy mating system is choice of bulls with medium frame score that increase dressing percentage and meat to bone ratio without compromising conception rate, calving ease, or beef quality grade, and then having large, uniform groups of F1 progeny. Uncertainties with regard to the outcome of beef on dairy matings introduce price risk into this production system. For both dairy and beef-on-dairy calves, artificial rearing during the pre-weaning phase is the only option and its impact on lifetime health of these calves should be assessed. Due to the distinct deficiencies of the Jersey breed in growth rate and meat-to-bone ratio, the best options for implementation of the beef on dairy concept for the low-end cows in a Jersey herd seem to be embryo transfer with a full-blood Angus or SimAngus embryo, or very careful selection of bulls that excel in meeting the principal challenge.

There has been exaggerated mention of a high incidence of liver abscesses in finished Holstein steers and its relevance to the beef on dairy crossbred steers and heifers. Liver abscesses are not a problem in the industry of the upper Midwest. Hopefully the Central Plains consultants and feeders will explore and adjust, to attain the low incidences of our region. High incidence of liver abscesses could be interpreted by some as insufficient cattle welfare.