Sire Selection for Beef on Dairy

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Current commodity prices have lead many dairy farmers to seek out alternative means of cash flow which has caused an increased interest in mating a portion of the dairy herd to beef sires. Combinations of sexed semen resulting in increased dairy heifer supply, greater rearing costs, and lower market prices for dairy replacements have made marketing beef genetics an attractive option. Producing beef cross calves has the potential to increase the marketability and price of bull calves and crossbred heifers. In addition, it can offer a genetic advantage for dairy farmers to focus on their best genetics by breeding their superior end of cows to heifer sexed semen to produce dairy replacement heifers, while breeding the genetically inferior end of cows to beef sires providing an alternative market for lower end genetics.

In dairy breeding, the sole genetic focus is on replacement females and the traits that will make her an elite producer, long lived, and a trouble free cow. In the beef industry, genetic selection has had to focus on both maternal (replacement females) and carcass (terminal) traits. Weaning weights, yearling weights, ribeye area, and marbling are examples of terminal traits used for breeding to increase carcass merit and efficiency in market animals. If dairy producers want to fully capitalize on the dairy beef market, they will need to begin familiarizing themselves with these traits are well.

It's assumed all dairy beef cross calves will be fed out and marketed as finished/ fat cattle. Yes, the potential exists to save some dairy beef cross females for breeding as beef, but it is a practice that has been discouraged. With the assumption that dairy beef crossbreds are all destined for the finished cattle market, in can be easy in a dairy mindset to assume beef sire selection is not important. These calves are secondary to the genetics going into replacement heifers and will not be retained in the herd hence holding very little genetic merit. However, using the right beef sire can have a great impact on the marketability and profitability of the resulting crossbred offspring.

Semen cost, conception, and calving ease are logical starting points for beef on dairy sire selection. Emphasis on calving ease may vary, depending on the use for heifer's vs cows, and breed of dairy cattle (Holstein vs Jersey vs crossbred). Frame size and muscling should also be taken into account with beef sire selection to compliment the parent breeds. For Jersey's, it's increasing size and growth but with low birth weights. For Holsteins, too large of frames is most often the issue, so beef sires that moderate frame score and increase muscling are desired. It may be surprising to some, but dairy genetics often rank high for marbling. So beef sire selection for marbling may not be warranted. On the other hand, muscle shape in the ribeye area and round can be extremely important for grid based marketing, and often a trait dairy genetics scores

poorly on. Coat color is also a factor in many markets, with discounts for non-solid black. Beef sire breed can play into the prevalence of "spotting" of white hair vs solid black.

Dairy producers are more familiar with "Red Carrier" as the term for black coat color but carrying the recessive red gene. In beef, homozygous and heterozygous black is used instead. Homozygous black carries both black hair coat genes, while heterozygous would be the equivalent of red carrier. There are many beef breeds with homozygous black sires available. Most beef breeds offer a greater selection of polled genetics than our dairy breeding currently offers, and looking again for homozygous (both genes) polled will offer the advantage of producing all polled calves.

Beef crosses offer an advantage over straight dairy steers in muscling and feed conversion, but they can be more inconsistent in frame size and performance than their purebred counterparts. The analogy for dairy producers would be Jersey X Holstein crosses. While on average they moderated the frame sizes, milk volume, and components of their parent breeds, they could also be inconstant on the individual basis with some individuals exhibiting more characteristics of one breed over the other.

A few feedlot operations are offering buyback plans for dairy beef cross calves, if you use the genetics they select. This is their way of managing the inherent variability of crossbreeding by using a limited number of bulls and / or bulls from similar breeding, plus also selecting bulls that perform well for traits beyond cost, conception, and calving ease.

An increase in value for these crossbred steers and heifers as compared to their straight dairy counterparts has been seen in many sale barns and processing plants throughout the country. By implementing the right beef genetics in the inferior cows (both genotypically and phenotypically) within a herd a producer can have a positive impact on the overall quality of heifer replacements and value in their feeder calves. It's an opportunity to improve with good beef sire selection.

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