ON TARGET

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A little background may help

Let's say you weaned calves last fall but didn't sell. Instead, you helped them cross the bridge to independent life in your dry lot pen and maybe on to a grazing program. Chances are, those "backgrounded" calves have moved on to a finishing yard or the next phase of heifer development.

You've got calving on your mind now, but that means weaning will surely follow this fall and some of your decisions then will be framed by decisions made this spring. So back to those pens and fields, perhaps empty now, but ready for planning.

Researchers at the University of Nebraska recently compared three backgrounding systems, and at least one of them might be a good fit for your farm or ranch.

A silage-based dry lot system is the most common model for those who get their weaned calves started at home, but the Nebraska work also looked at grazing options. One set of calves grazed oats and turnips that were planted after corn-silage harvest and another picked through corn stalks along with a distillers grains supplement at 0.9% of their body weight.

The silage system lasted 53 days while each grazing option ran for a total of 93 days, including a month on the silage diet before moving on to the feedyard, where all groups were finished for approximately 160 days to reach a common back fat of 0.6 inches. The calves grown only on silage gained fastest with an average daily gain (ADG) of 3.25 pounds, so they moved into the feedyard and finished 40 days ahead of their grazing cohorts.

ADG for each of the systems depended on how much energy calves could take in. Stalk grazing was lowest at 1.91 lb./day and the cover-crop oats and turnip mix was intermediate at 2.32 lb./day. Feedyard gain was greater for calves that had grazed, typical after time on a restricted diet, but calves backgrounded on silage were more feed efficient. Final bodyweight was greater for both grazing treatments, which meant greater carcass weights.

The study was designed to reach a similar back fat level for all calves, but that didn't mean intramuscular fat, marbling, would be the same. Marbling scores were lowest for those grazing corn residue, followed by calves on cover crops, and highest for those fed only the silage diet.

Previous studies suggested similar cattle fed to comparable back fat will finish with similar marbling, but it's becoming clear that diet prior to finishing can make a difference in marbling, even when fed to the same back fat level.

Marbling development is a lifetime event, and it begins with breed and especially sire selection. Many studies show the advantage English-influenced genetics have over those with more Continental influence when it comes to marbling and final quality grade.

The recent Nebraska study showed small differences in marbling score due to backgrounding system. The lower rate of gain by calves trying to grow on corn stalks resulted in the lowest percent Choice, despite faster feedyard gains and heavier carcass weights. It goes back to the fact that marbling is a lifetime event. Even a moderate ADG presents a risk of reduced quality grade expression (failure to realize genetic potential) because of getting by on limited forage intake, shipping stress or inclement weather.

You don't need to run your own experiment, but look at any data on calves that got sick while on feed: you can count on lower than pen average quality grade, and some of that is the interruption in steady nutrition. It starts way before that, of course, as we know marginal cow nutrition can suppress eventual marbling ability of a calf even before it's born. When the genetic potential for grade is unknown, the margin for nutritional error is mighty slim. When genetic potential for grade is supposed to be one of your herd's advantages, you have a lot to lose.

With 70% of calves grading Choice today, we get paid grid premiums for reaching that grade only by exceeding plant average. What happens if you aim both genetics and management for closer to 100% Choice? Premiums are paid based on the Choice-Select spread for those 30% above and beyond average, and for each carcass qualifying for the *Certified Angus Beef*® brand and USDA Prime. All the more reason to ensure adequate nutrition for genetic potential—with a margin for environmental challenges—at every step along the way, from those calves you tag today to their backgrounding and finishing systems.

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