

Crossbreeding: Considerations and Alternatives in an Evolving Market

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EXECUTIVE SUMMARY

What cost for a free lunch?

Some of the most profitable beef cattle ranches operate well-managed cowherds that systematically implement crossbreeding. Conversely, some of the least profitable try to practice crossbreeding, but without sufficient management and marketing focus often fail to beat simpler, straightbred alternatives.

Despite decades of educational efforts that positioned crossbreeding in beef cattle as “a free lunch,” surveys show many producers are in effect leaving it on the table. This warrants a detailed examination of the reasons for the “disconnect” between a research-proven concept and acceptance as a commercial cowherd application.

The route to ranch profitability is complex and filtered by individuals. Incremental changes in marketing, capital and cost management, and increasingly accurate genetic tools, help explain why long-established research that supports crossbreeding has been trumped in many scenarios where bottom-line profits are the focus.

Properly planned, well-executed crossbreeding can add maternal benefits and more weaning weight in most environments, but those qualifiers indicate it is no open-and-shut case.

Strategic marketing

More pounds do not always mean more profit, but the supporting paradigm gained ground on its perceived operational efficiency. It took little effort to introduce a Continental bull into an English herd and increase output. However, that often led to a “problem solved” assumption.

Introduced and promoted to individuals who did not often practice crossbreeding in a well-designed or systematic way, attempted application of the concept did at least as much harm as good.

The approach became especially hazardous as beef consumers grew more discriminating in the 1990s. Commodity beef was not delivering what they wanted, so industry economics began to change toward reflecting the entire value chain. That favored production systems that were increasingly responsive to end-user specifications.

As more research pointed to English breeds’ superior marbling and tenderness, cattle with proven potential for carcass performance became more valuable. These changes laid the groundwork for a shift in conventional marketing, including more interest in retained ownership at the feeding stage and more emphasis on quality over quantity alone.

Growth in branded beef programs like Certified Angus Beef® drove demand for Angus-sired feeder cattle, sending a strong signal to producers to incorporate Angus genetics.

In addition, the consolidated, larger operations tend to move from strictly a weigh-up focus to more specified marketing targets. The ability to fill a semi-trailer leads to more desire for uniformity, and still more interest in value-added marketing through retained ownership. In those scenarios, weight and value are not mutually exclusive.

Key marketing factors that lead to straightbreeding:

- Value-based marketing systems rewarding carcass quality
- Value of consistency
- Angus branded beef programs

Cost, capital management

Only one-quarter of beef operations consider the cowherd as primary income, and labor efficiency is critical to those with 200 or more cows, who account for nearly 40% of the inventory. Management at calving can be very time-consuming, and the effort to minimize impact there adds emphasis to predictable calving ease genetics.

The risk of losing a calf—or even a cow—at birth versus more weaning weight from crossbreeding leans toward the live calf when time and labor are scarce. It is just not worth it to nurse one cow through a difficult birth in a snowstorm when there are 200 more to think about. Calves that receive timely colostrum build on that good start. Research has also shown health benefits in straightbred Angus feeder cattle.

To achieve maximum heterosis benefits, multiple breeds of bulls and breeding pastures must be maintained, with excellent records kept. This adds complexity that many cow-calf producers cannot afford. Straightbreeding becomes a management tool to simplify the beef cattle operation.

Key management factors that lead to straightbreeding:

- Reduction in calving season problems
- Health benefits in the feedlot
- Simplicity of breeding system

Genetic progress pays

As the use of expected progeny difference (EPD) tools flourishes, the desire for data builds. Although Angus registrations outnumber those for the next seven breeds combined, this is not all about the breed; it is about the level of precision that comes with that volume of data.

As long as the beef industry can hit the end-product targets efficiently and profitably, breed and color do not necessarily make a difference. It just happens that Angus has the genetic base to meet those consumer demands, and the tools to help drive that forward.

The Angus database shows significant gains in performance traits across the board, narrowing the gap in breed complementarity and reducing the hybrid vigor boost. Breed differences have diminished to a point where crossbreeding delivers less advantage now than in the past.

Registered Angus breeders have also embraced AI and EPD technology at a more rapid rate than most other breeds. Coupled with the market share that Angus breeders have today, commercial bull buyers have better access to a genetic selection that fits their needs. Finding comparable genetic predictability in another breed can be difficult in many regions of the US.

Key genetic factors that lead to straightbreeding:

- Angus database advantages
- Diminished breed complementarity, especially for growth
- Easier access to Angus bulls

Crossbreeding proves advantageous from a production standpoint. But as the business environment has shifted and become more complex, the sole pursuit of heterosis for commercial cowherd operators is no more tenable than single-trait selection for any genetic trait.

Full paper is available at <http://cabpartners.com/news/research.php>