

Combining Cow Sense...with Science – part 2

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The industry is equipped with more science-based tools for animal selection than ever before. New tools coupled with the enhancement of existing tools allows cattle breeders to make informed decisions about the direction of their genetics. At no other time in the history of beef cattle breeding has there been as much information at our disposal to enhance our position among consumers, and at the same time produce cattle which are functional and profitable.

Modern Tools

Science has had a profound impact on cattle breeding. We have witnessed an evolution from adjusted weights and ratios to calculation of expected progeny differences (EPDs), and now selection indexes and DNA genotyping. The principles established in collecting performance records continue to be the foundation of current tools. Therefore, the collection of performance records will continue to be vital in this new age science.

The ability to make dollar and sense decisions utilizing EPDs has improved through the implementation of indexes. These tools enhance the ability to select for favorable responses in multiple traits and provide a systematic way to combine EPDs related to a common selection goal. They do so in a manner designed to capture the economic influence of each component trait. Additionally, they assist in striking a logical balance among traits. For example, many breed associations provide a carcass value index EPD. These indexes provide a tool for finding balance between carcass quality grade and yield grade component EPDs. The future will bring more tools, as well as more advanced decision-making and support systems to complement them.

The mapping of the bovine genome holds promise for the future. The ability to select animals for specific gene combinations is a reality for marbling and tenderness. There are exciting opportunities in the works, with scientists mining the genome for genetic clues to enhance cattle health, efficiency, reproduction and other economically relevant traits. Most importantly are the ongoing efforts to incorporate the results of DNA tests into breed databases. DNA tests hold tremendous promise when used to enhance current selection tools and selection opportunities for traits difficult and/or very expensive to measure.

Opportunities for the Seedstock Producer

The large number of tools at our disposal is perhaps both our biggest opportunity as well as challenge. New innovations add to the complexity of the decision-making process. Therefore, great opportunity is at hand for seedstock suppliers who communicate with cow-calf producers and other partners in the supply chain.

We have all been asked "which is the best bull?" The response cannot be in a manner which fits all needs. If we consider the question in the context "which is the right bull for my situation?" we define the parameters that warrant consideration. The focus should be on effective strategies that allow the right bull to be designed and identified.

The industry is characterized by diversity in production environment, herd size and consumer needs. Working with cow-calf producers to understand their goals and needs, and designing genetics to fit needs today and in the future is key. At the same time, one must keep abreast of the dynamic, ever-changing global economy influencing agriculture.

Herd goals and objectives serve as the foundation for sire selection and provide guidance for traits with the most economic relevance. The production and marketing system along with management strategies and environment are key factors that warrant consideration. Within each of these considerations, solid record-keeping strategies provide necessary information.

Priorities should be established based on factors which have the largest impact on profitability. Performance is a function of both genetics and environment, compatibility of genetics to forage resources, feed quality and quantity and management is key.

Our success is dependent on providing safe, nutritious, consistent products to consumers who are interested in the process of delivering the product to their plate. Beef is a flexible product, with numerous attributes desired in the marketplace. Therefore, not all beef needs to be the same, yet must be produced with a viable target market driven by consumer expectations.

The Future and Beyond

We are in the midst of the most exciting times in the beef business. Never before has there been more opportunity to derive added value for producing a superior product throughout the supply chain. This is true for the seedstock supplier providing genetics to the cow-calf producer, as well as the cow-calf producer, stocker operator, feedyard operator and processor. The opportunity to create value by communicating and working together has never been greater.