



RIPPE GELBVIEH



TAKING PRIDE IN OUR CUSTOMER'S SUCCESS

A Publication of Rippe Gelbvieh

January 2007

REPLACE CROSSBREDS WITH COMMERCIAL PUREBREDS?

The extrapolation of logic regarding color has led many beef producers to first make their cattle black, then to work on making their cattle genetically superior in regard to production, carcass merit and reproduction. Producers should not be criticized for this decision, they are simply responding to a market reality. By this response many commercial herds have been drained of nearly all of the hybrid vigor that was once there in their crossbred cows and calves. Three generations of Angus bulls on F1 Angus-Hereford cows results in 15/16 Angus cows and loss of 87% of the hybrid vigor, particularly in important reproduction & production traits. Hardest hit are the lowly heritable traits (such as conception, survival, fitness) which do not respond well to selection for the more highly heritable carcass and growth traits.

Why did this happen?

- Crossbreeding systems were mismanaged.
- Certified Angus Beef is a successful branded beef program
- The Angus data base became large & powerful
- Angus bulls & semen became the calving ease choice for breeding commercial heifers.
- The dominant black gene solves color inconsistency.

The widely criticized "so called" mongrelized and rainbow colored cow herds of the 70's and 80's led many producers and industry pundits to conclude there were just too many breeds to choose from. Thus,

born out of frustration, one proposed solution was to return to the days of two or three breeds and purebred commercial cattle. A purebred commercial beef industry based on only a small handful of breeds would probably increase uniformity, but at what cost? Can a single beef breed produce cows adapted to a wide range of environments and also produce high quality carcasses with excellent lean yield? Furthermore, could the above be accomplished without the coping mechanism of hybrid vigor? Not likely, unless the environment was consistently low stress and the beef market was narrowly defined. Given the powerful sire selection tools found in National Sire Evaluation programs there are certainly individual purebred commercial programs that are as productive as crossbred commercial programs because in low stress environments the advantages of hybrid vigor in that circumstance are small enough that purebreds can successfully compete. Thus, it would only take one drought year to blow the purebred commercial approach out of the water should it be used on an industry-wide basis. The advantages of hybrid vigor for the economically important trait of calf crop weaned is well documented to average about 4% for crossbred calves and an additional 5% for crossbred cows. Research at the US Meat Animal Research Center at Clay Center, Nebraska estimates lifetime productivity of crossbred cows exceeds that of purebred cows by at least 20%. Hybrid vigor for crosses involving Brahma breeds would be even larger.

Jim Gosey, Beef Specialist, University of Nebraska, Lincoln

The KISS Principle

My livestock judging coach at Butler, Chris Mullinix, constantly reminded me to Keep It Simple Stupid; and I now recommend using this principle when it comes to your cowherd. Often, successful breeding programs are the most simple. Simple does not mean primitive – these programs do not avoid using advanced breeding technology – it just means they are simple conceptually. They have well-established goals, clear, and straightforward goals. Breeders can simplify their programs by clearly defining the industry roles their animals fit best. Not all breeders should provide a specialty product, but neither should they try to make their animals all things to all people. They should limit the traits under selection to those that are truly important and ignore the traits whose value is purely aesthetic. Complex breeding programs are often difficult to maintain and require more time and energy than their advantages may justify. Simple crossbreeding programs, however, tend to remain in place. Simplicity breeds consistency.

“The most effective way to cope with change is to help create it.”

L. W. Lynett

**8th Annual Bull Sale:
March 10, 2006
Offering includes 30
Balancers, Gelbvieh, and
Angus.**

Which one?

One of our primary goals is to provide the best possible service to Rippe Gelbvieh's customers. However, our first goal is supplying commercial cattlemen with the best bull for their operations, as there is no such thing as "one size fits all" in the cattle industry. We have yet to figure out a way to make bulls that are elastic so that you can stretch and pull them to your desired dimensions; because of this, we feel it is our job to assist you in purchasing your herd sires. This can be tough and will not bring the desired outcome in your offspring if you are not sure of the traits you want to select. There are several factors that go into the proper selection of a herd bull. You should always purchase bulls from a supplier that has stricter management practices than you or his cowherd, or at least equivalent. Purchasing herd sires from an operation that pampers their bulls will often leave you unsatisfied with that bull's performance for many years to come.

Your first priority should be to establish the goals of your cowherd, and these goals need to match your marketing objective. Without a clear plan success rarely occurs. Once you have established your goals you need to make some time and study your

cowherd, then decide what traits need to be enhanced, and which need to be reduced or eliminated, so that you can achieve your goal. In addition, think back to problems that you have encountered the last couple of years with your cowherd and decide whether they can be fixed genetically. I have created a table below that will hopefully assist you in the investment of a herd sire that will work in your operation. In the table, please rank each trait from 1 to 11, with one being the most desirable, 11 being the least; also write in a frame score. In the first column, you can fill in what traits you believe will help meet your operation's goals. These can differ for various bulls in your operation. Some questions you may ask yourself while filling this out might be: Would the bull be used on heifers or mature cows? Are you keeping replacements or selling all of the calves?

In the second column you can evaluate your current cowherd and rank each trait from strongest to weakest. Bring this completed sheet with you when you come view prospective bulls or at least give the questions some thought, and we can better serve you in finding a bull that fits your needs. We encourage you to come prior to the bull sale so we can assist you in evaluating your criteria to select the bulls that will match with your cowherd. If you have any questions, feel free to give one of us a call or stop by anytime.

8th Annual Bull Sale: March 10, 2006

Offering includes 30 Balancers Gelbvieh, and Angus.

Hello everyone, I have finished college at Colorado State University. Unfortunately, I still have a couple of classes to take so that I can receive the almighty piece of paper. I have decided to study abroad and finish those last classes in New Zealand. My next publication will probably relate to different ranching techniques utilized in New Zealand. I hope you find some valuable insight in this newsletter. If you have any questions about the newsletter, or have some special request for other information, feel free to give me a call anytime at (316) 323-4874.

Sincerely,

Dustin Rippe

Actual Numbers vs. EPD's

A herd sire's actual numbers are typically expressed as adjusted weights, other than birth weight, while Expected Progeny Differences (EPDs) are used to compare different bulls within a breed. An EPD may be based on any combination of individual performance, pedigree, and progeny performance information, making them the most accurate tool available today. What makes them so accurate is that they account for many variables that actual numbers do not take into account. Such factors include the genetic value of cows to which a bull is bred, environmental differences affecting contemporary groups, genetic values of other parents in the contemporary group, and genetic trends. Thousands of data points are entered into a computer program that calculates and returns an individual's EPDs. Due to the greater number of factors influencing these calculations, we at Rippe Gelbvieh suggest you spend more time evaluating a bull's EPDs instead of his actual data. Remember, good decisions are based on good information.

Marketing Plan-

Keep Replacements?

Breed Make-up of Cows-

	Traits that meet your goal	Current Cowherd	What you Need
Calving Ease			
Weaning Weight			
Yearling Weight			
Milk			
Scrotal			
Carcass Weight			
Marbling			
Muscling			
Rib or Body			
Fleshing Ability			
Structural Soundness			
Desired Frame Score			

Frequently Asked Questions Regarding Balancers and Hybrids.

What is a Balancer?

It is a hybrid composed of Gelbvieh and Angus or Red Angus. It is designed to retain heterosis (hybrid vigor) in future generations without crossbreeding and maintained much like a purebred.

What is the consistency of hybrids?

Surprisingly, to many in the cattle industry, the consistency of a hybrid is about as consistent as the performance of purebreds. They are differences in qualitative traits (color, horns, etc.). You may experience variation in these traits depending on which hybrid line you are using. However, when using a hybrid such as a Balancer that is homozygous black and homozygous polled, there will be no difference. Although the debate continues, data concludes that there is no difference in the quantitative traits, or economically important traits, according to the research at the Meat Animal Research Center in Clay Center, NE.

How good is the accuracy of Genetic Prediction with hybrids?

The lack of accuracy in prediction has consistently been the biggest problem with hybrids. However, data on Balancers is stored with the American Gelbvieh Association. They have enough data compiled to be the same as a purebred from an accuracy standpoint. Remember, in order for an animal to be registered as a Balancer, both parents must be registered.

How much heterosis can be retained when using hybrids?

As indicated in Table 1, from using unrelated F1 bulls composed of the same two breeds ($A \times B \ll A \times B$) can result in retention of 50 percent of maximum possible heterosis. Rotating F1 bulls that have only one breed in common ($A \times B \ll A \times D$) can result in 67 percent heterosis. Rotation of F1 bulls having no breeds in common ($A \times B \ll C \times D$) can offer 83 percent of maximum heterosis, nearly equal to what can

be achieved with a three-breed rotational system. The first system ($A \times B \ll A \times B$) would be especially useful in small herds because it requires only one breeding pasture. Another system not shown here is rotating different breeds of F1 bulls ($A \times B, C \times D, E \times F$, etc.) every 4 years. To avoid wide intergenerational swings in biological type, breeds A, C and E should be similar in type, as should breeds B, D and F. (Harlan Ritchie)

What are the advantages to commercial producers?

Compared with traditional rotational crossbreeding systems, composites are attractive to commercial herd owners for many reasons. Such a system is less cumbersome to manage, especially in small herds; it also is easier to manage under management-intensive, short-duration grazing systems. It avoids the wide swings in biological type (size, milk, carcass composition, etc.) that often occur from one generation to another in rotational systems, thereby helping reduce mismatches between biological type, and the production environment and/or market specifications. Finally, it can help overcome certain genetic antagonisms such as red meat yield and marbling because such traits can be balanced rather precisely when the parent breeds are selected. Over time, a relatively high percentage of heterosis can be maintained as long as inbreeding is avoided. (Harlan Ritchie)

Balancers offer:

- Simplicity
- Breed complimentary
- Retained heterosis
- Uniformity
- No difference in quantitative traits

Hybrids are made up of all of the valuable qualities associated with each breed and "a mongrel is made up of the riffraff that are left over." (Mark Twain)

Table 1. Levels of expected heterosis for various mating systems.

Mating system ^b	% of maximum possible heterosis ^a	Estimated increase in calf wt. weaned per cow exposed (%)
Pure breeds	0	0
Two-breed rotation at equilibrium	67	16
Three-breed rotation at equilibrium	86	20
Static terminal sire system	86	20
Two-breed rotation & terminal sire (rotational)	90	21
Terminal sire x purchased F ₁ females	100	23-28
Rotate sire breed every 4 years (two breeds)	50	12
Rotate sire breed every 4 years (three breeds)	67	16
Two-breed composite (1/2 A, 1/2 B)	50	12
Three-breed composite (1/2 A, 1/4 B, 1/4 C)	63	15
Four-breed composite (1/4 A, 1/4 B, 1/4 C, 1/4 D)	75	17
Rotating F ₁ bulls:		
A B ↔ A B	50	12
A B ↔ A D	67	16
A B ↔ C D	83	19

^a Relative to F₁ @ 100 percent.

^b See "Crossbreeding Systems for Beef Cattle," Michigan State Univ. Ext. Bull. E-2701.

Hybrid Genetics Are Consistent

Trait	Variation Comparison Between Composites and Purebreds
Birth Weight	No Difference
Weaning Weight	No Difference
Yearling Weight	No Difference
Finished Weight	No Difference
% Retail Product	No Difference
Puberty	No Difference
Gestation Length	No Difference
Scrotal Size	No Difference

p < .05

Source: Adapted from USDA Meat Animal Research Center

"Hybrid genetics are successful in combining reproduction, growth and carcass traits into simple, well-designed breeding programs for the commercial industry. The use of F1 (first cross resulting from two purebred parents) bulls much like your Balancer® program goes a long ways towards providing a simple crossbreeding solution."

Dr. Harlan Ritchie

Rippe Gelbvieh

WE ARE ON THE WEB AT
RIPPEGELBVIEH.COM



Mission Statement:

"To produce superior Gelbvieh and Balancer seedstock based on economically important traits, which provide more profitability for our customers, and ensure the consumer a very satisfying eating experience."

"The heart of the wise teaches his mouth,
and adds persuasiveness to his lips."

Proverbs 16:23

For more information about our program call Duane Rippe, (home) 402-324-4176, (cell) 402-200-0096 or Dustin Rippe, 316-323-4874 or online at rippegelbvieh.com

Rippe Gelbvieh

6775 Road D

Hubbell, NE 68375

Phone: 402-324-4176

Website: rippegelbvieh.com

Taking Pride in our Customer's Success