

News Column

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CROSSBREEDING – BACK TO THE BASICS

One of the first things we were all taught in our animal breeding and genetics classes back in high school and college is that crossbreeding is easy money. Fifty years ago, if you had Herefords you could breed them to an Angus bull and wean calves that were 40 pounds heavier. Or, vice versa – breed your Angus cows to a Hereford bull to get 40 pound bigger calves.

Those numbers are about what we got 50 years ago and they are still right if you look at crossbreeding research results published in recent years. Straight bred cows bred to equal quality bulls of another breed are expected to produce 8.5% more pounds of calf per cow. If you were weaning 500 pound straight bred calves, then you should wean 542.5 pound crossbred calves, according to the research studies.

It really seems like a no-brainer, doesn't it? But, if it's a no-brainer, then why are there so many black Angus cows being bred to black Angus bulls?

I don't know the answer, but it could be that some of the black bulls in the neighbors' pastures aren't really Angus, but are black Simmental, black Gelbvieh, or half-blood composite bulls instead. Or, it could be that some folks like Angus cows, just like some folks like Hereford cows, and economics don't really matter.

If economics mattered, then the countryside might be populated with Hereford x Angus crossbred cows, and the bulls would all be terminal sires, maybe Simmental or Charolais. That's not possible of course because somebody has to produce the crossbred cows and somebody else

has to produce the terminal sires. But, if economics ruled, then more people would be looking at the 24% advantage that comes with a crossbred cow and terminal sire system.

Because I like math, let's go back to that 500 pound straight bred calf that I thought I was producing in the 1960s. By converting to a crossbred cow and a terminal sire, then I should wean 620 pound calves, right?

That's actually not quite right. The total pounds of calf weaned would be right, but the 24% increase is actually an increase in pounds of calf weaned per cow exposed, not a 24% increase in individual weaning weights. The 24% improvement is really the result of weaning more calves in addition to weaning heavier calves.

Trying to decipher the research numbers is a bit challenging, but as best I can tell, the crossbred cows are weaning about 4% more calves. There are a number of ways you can do the math, but roughly 25 pounds of the increase in calf weight per cow in this system is due to increased calves weaned, and the other 95 pounds is weight per calf.

I'm sure 99% of you have seen more numbers than you wanted already, but let's try looking at the advantage of different crossbreeding systems in table form. The table is comparing crossbreeding systems to straight bred cattle.

<u>Type of System</u>	<u>Percent Advantage</u>
Terminal Cross w/ Straight Bred Females	8.5
2-Breed Rotation (females are crossbred now)	16
3-Breed Rotation	20
Terminal Sire on 2-Breed Crossbred Females	24

It is clear that crossbreeding yields more pounds of beef per cow exposed, no matter which system you employ. But, one more statistic is worth including here. In 2012, Angus

semen accounted for 74% of domestic semen sales. Simmental was next at 8.4%.

I'm not anti-Angus. I grew up with Angus cows and I like them too. Yet, I look at the numbers and all that comes to mind is.....WHY?

Why not crossbreed?

If you have questions, you can reach me at the Riley County Extension Office at 785/537-6350. Or, you can send e-mail to gmcclure@ksu.edu.

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