1511 HWY 59 • Fair Play, SC • 29643 • <u>spitzeranch@mindspring.com</u> • 864/972-9140 Please follow us on Facebook and visit us on the web at <u>www.srbulls.com!</u>

SUMMER 2011 NEWSLETTER

BENCHMARK SPITZER RANCH GENETICS

All of you are well aware of our dedication to data driven genetic improvement through judicious use of every important piece of performance information, especially EPDs. We delayed publication of this Newsletter until the FALL-2011 Brangus National Cattle Evaluation and publication of the most current EPDs on all Brangus animals. We are honored, yet very humbled, with our standings for the latest leading genetic statistics.

The Brangus Trait Leader Lists (TLL) compile the best 25 sires for each EPD evaluated. Spitzer Ranch bulls account for 12 slots on those trait leader lists. These bulls include the fantastic Catawba Warrior R532 who ranks in the Top 4% or better for 5 traits and top 15% or better for 2 additional traits. R532 occupies four places on the TLL as the #15 bull for YW, the #17 bull for Rib Eye Area, the #11 bull for Scrotal Circumference and the #3 bull for increased Fat. AND, following our emphasis on "curve bender" genetics, R532 is one of only 4 bulls on the Yearling Weight TLL with a negative Birth Weight EPD.

Need calving ease in a package that does not sacrifice growth? An absolutely extreme "curve bender" bull is **SR Cadence Warrior S702**, the #7 bull on the Low Birth Weight TLL with a BW EPD of *negative* 4.6 pounds. But just as important, S702 garners the highest Yearling Weight EPD of all bulls on the Birth Weight TLL and he ranks in the Top 25% or better for a total of 5 traits. These are only highlights as there are seven Spitzer Ranch bred bulls on the FALL-2011 TLL.

Additionally, almost all of our cows carry the genetics of the two foundation sires; Cadence of Brinks 535D3 (#2 on the TLL for both Milk and Total Maternal EPDs) and Aces TF Wrangler 145/8 (currently on TLL at #7 for Milk, #10 for Total Maternal, #25 for Marbling and #20 for increased Fat EPDs).

We are quite proud of these results as we are really very small breeders as far as cow numbers are concerned. Spitzer Ranch currently lists only 69 cows on the Brangus Total Herd Reporting inventory. Until 2009 when we purchased the Deer Crossing Cattle Ranch mature cow herd from Richard and Elaine Sherrill, we seldom had more than 30-40 cows. But we have dedicated ourselves and our entire program to genetically designing cattle that work in the real world of the Professional Cattleman. Genetics and more importantly genetic selection headed in the right

direction works. If you want to put our 30 years of genetic selection to work for you, give Spitzer Ranch a serious look.

2011 BULL TESTING AND DEVELOPMENT PROGRAM

The 19TH annual Spitzer Ranch Professional Cattleman's Brangus Bull Sale will be held at our home on the ranch in Fair Play, SC on Saturday February 25, 2012. We are currently developing 26 bulls in two groups as displayed for you in the performance reports on page 3. Bulls are gaining exactly as our ration dictates with Test 2011-1 at a 3.11 pound ADG and Test 2011-2 at an ADG of 3.43 pounds. We don't push for maximum gain, but develop bulls into the sound, functional bulls you need to get out and get the job done. Our bulls are consistently at less than 1/4 inches of rind fat when we ultrasound scan as 1200-1400 pound yearlings. That's one of the reasons we develop bulls on a 168-Day growing ration rather than the typical 112-Day or 140-Day "gain test" used by many others.

Consistent with our "curve bender" genetic philosophy, 19 of the 26 bulls have BW EPDs less than the Brangus Nonparent breed average of 0.7 pounds. In fact,

OUR LEGACY: the Land, the Family, the Cattle (NCBA)

comparing averages for all 26 Spitzer Ranch Brangus bulls against the entire Nonparent Brangus breed average calculates to 1.2 pound less BW EPD. But, that lower BW EPD is accompanied by more growth with 3 pounds more WW EPD and 6 pounds more YW EPD, on average. There are bulls in the mix with an even better EPD profile.

In fact, 60% of these bulls can be flagged as true calving ease bulls suitable for use on heifers. As an added bonus, 85% of these bulls have MK and TM EPDs greater than breed average and will assuredly sire daughters destined to be those fantastic Brangus Gold replacement females.

Come to our sale expecting to see a group of Brangus with the best Curve Bender Genetics to sell anywhere in the country. And all the work with vaccinations and herd health, data collection and a complete breeding soundness evaluation (BSE) are a part of the package. We should have a nice number of crossbred Brangus females from the herds of some of our best customers. We maintain strict and complete health and vaccination requirements for all consigned females.

While we no longer routinely mail Bull Sale Catalogs to our entire mailing list; anyone who has previously bought bulls will receive a copy by mail. A downloadable Bull Sale Catalog will be available at www.srbulls.com for you to print for yourself approximately February 1, 2012. If you do not have access to a computer we will be pleased to mail a printed copy of our catalog on request. Just call 864/972-9140. If we are not at home when you call, that number has an answering machine for you to leave us a message. If you receive this Newsletter, we already have your address so just leave a name and a message. THANKS!

SPITZER FAMILY NEWS

It seems such a relatively short time ago when we were busy compiling our Winter Newsletter, and extending you an invitation to last year's sale. As a reminder, the February 2011 sale had us selling bulls to cattlemen form six states for a \$2711 average. There were bulls sold in everyone's price range with individuals selling from \$1900 to \$4000 and every bull finding a home with commercial cattle operations. For those who didn't make it in 2011, we hope you can be here for 2012.

The Wednesday following the sale saw Doc off to the annual Brangus Convention in Houston, TX. This was certainly a busy five days, but the highlight had to be the International renewed Brangus Association (IBBA) Breeders presence at the Commercial Female Pen Show and Sale. For the first time in recent history, IBBA donated prize money to those exhibitors with Champion and Reserve Champion pens of Brangus Gold Females. Long time friends Lee and Bruce Alford as well as John and Ben Spitzer manned an informational booth at the event and pretty well ran out of literature on the benefits of Brangus Cattle.

Doc had not been home long and it was a plane ride to Minnesota and the annual meeting for Cooperative Resources International. John is a delegate to the GENEX Board of Directors meeting, which is a subsidiary of CRI. This is always a productive and very educational meeting. Of immense interest was how far ahead the Dairy Industry is compared to the Beef Industry on incorporating genomics (DNA profiles) into sire summary performance calculations.

After the sale, Patricia found out how close Missouri's Whitesell Land and Cattle Company was to Pratt, KS. She said, "Those are bulls we need to deliver personally!" We had a beautiful late April afternoon with Father/Son team of John and Adam Whitesell. Their enthusiasm for and pride in their Brangus cow herd was beyond enjoyable. We sure saw a nice set of very productive cows.

We drove to the KS line before giving out, but were playing with the grandkids by mid-morning the following day. We were only able to spend three days with the KS Spitzers, but enjoyed every minute.

The end of May sent us to TN for wedding of daughter of good friends. We cheated a bit as we spent two nights in a cabin close to Cades Cove and time at Clingman's Dome (third highest peak east of MS River) before heading home.

highlight June's was Doc representing Genetic Performance Solutions (GPS) at the annual Beef Improvement Federation meeting in Bozeman, MT. This trip created a small stir as Patricia was elected to stay at home and tend If you have never cows. participated in a BIF meeting, you owe it to yourself to do so. It is one of the few meetings where ranchers Industry and University Researchers what they want done in the way of research and extension in beef production, particularly animal breeding and genetics.

Late August saw us heading to PA for a short visit with John's mother. Now 92, she is in failing health and now in a nursing home. We certainly admire those who care for the aged when families can no longer give appropriate supervision.

Son, Ben came for a very short visit right after the SE Regional Junior Brangus Show and the annual SBBA meeting and sale in Andalusia, AL. Three days go by really fast, but we had a great visit as usual and caught up on what Ben has been doing for BRANGUS.

| SF | SPITZER RANCH Professional Cattlemen's Bull Development Program | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------------------------------|-----------------------------------------------------------------|------|----|------------------------|----|----|-----|-------|-------|--------|----------|-----|------|-----|--------|----------|-----|-----|------|-----|------|-----|
| Test 2011-1 105-DAY PERFORMANCE REPORT ~ August 20, 2011 | | | | | | | | | | | | | | | | | | | | | | |
| ID | | EPDs | | | | | | | | Birth | ı | Adj | Wean | ing | OnTest | 105-Days | | | | | | |
| Number | Sire | BW | ww | $\mathbf{Y}\mathbf{W}$ | MK | TM | SC | REA | %IMF | FAT | Date | WT | WT | RAT | NC | WT | Age | WT | ADG | RAT | WDA | RAT |
| X004 | TCB Catawba Warrior R532 | 0.3 | 39 | 67 | 19 | 38 | 0.9 | 0.52 | 0.02 | 0.011 | 09/21/10 | 72 | 577 | 112 | 2 | 575 | 333 | 920 | 3.29 | 106 | 2.76 | 102 |
| X005 | PR Elixir 698L3 | -0.3 | 26 | 48 | 16 | 29 | 8.0 | 0.21 | 0.12 | 0.003 | 10/20/10 | 62 | 566 | 100 | 1 | 500 | 304 | 838 | 3.22 | 103 | 2.76 | 101 |
| X031 | SR Wrangler Warrior T113 | 1.1 | 33 | 56 | 16 | 33 | 0.6 | 0.42 | -0.01 | -0.013 | 11/19/10 | 78 | 630 | 100 | 1 | 533 | 274 | 836 | 2.89 | 93 | 3.05 | 112 |
| X052 | PR Elixir 698L3 | 0.4 | 24 | 43 | 10 | 23 | 0.2 | 0.01 | 0.06 | 0.006 | 09/24/10 | 76 | 493 | 101 | 11 | 534 | 330 | 866 | 3.16 | 102 | 2.62 | 97 |
| X055 | PR Elixir 698L3 | -1.6 | 21 | 39 | 12 | 23 | 0.1 | -0.01 | 0.06 | 0.003 | 09/28/10 | 74 | 517 | 106 | 11 | 552 | 326 | 862 | 2.95 | 95 | 2.64 | 97 |
| X058 | PR Elixir 698L3 | -3.3 | 19 | 33 | 15 | 24 | 0.0 | 0.12 | 0.01 | 0.007 | 09/29/10 | 70 | 514 | 105 | 11 | 547 | 325 | 894 | 3.30 | 106 | 2.75 | 101 |
| X063 | PR Elixir 698L3 | 0.8 | 28 | 49 | 9 | 23 | 0.2 | 0.01 | 0.07 | 0.003 | 10/09/10 | 86 | 513 | 105 | 11 | 523 | 315 | 840 | 3.02 | 97 | 2.67 | 98 |
| X068 | SR Cadence Warrior S702 | -5.0 | 11 | 33 | 14 | 19 | 0.5 | -0.03 | -0.04 | 0.006 | 10/18/10 | 62 | 464 | 95 | 11 | 456 | 306 | 766 | 2.95 | 95 | 2.50 | 92 |
| X069 | SVF Mr Cadence 23S86 | 0.5 | 27 | 46 | 15 | 28 | 0.3 | 0.23 | 0.03 | -0.004 | 10/23/10 | 84 | 506 | 103 | 11 | 487 | 301 | 812 | 3.10 | 99 | 2.70 | 99 |
| X070 | SR Cadence Warrior S702 | -3.9 | 16 | 38 | 13 | 21 | 0.4 | 0.11 | -0.07 | 0.002 | 10/29/10 | 62 | 488 | 100 | 11 | 453 | 295 | 790 | 3.21 | 103 | 2.68 | 99 |
| X071 | SR Cadence Warrior S702 | -4.5 | 14 | 33 | 14 | 21 | 0.4 | -0.03 | -0.01 | 0.000 | 10/31/10 | 66 | 513 | 105 | 11 | 471 | 293 | 804 | 3.17 | 102 | 2.74 | 101 |
| 11 | Total Bulls | -1.4 | 23 | 44 | 14 | 26 | 0.4 | 0.14 | 0.02 | 0.002 | | 73 | 526 | 103 | | 512 | 309 | 839 | 3.11 | 100 | 2.72 | 100 |

| SPITZER RANCH Professional Cattlemen's Bull Development Program | | | | | | | | | | | | | | | 1 | | | | | | | |
|-----------------------------------------------------------------|----------------------------|------|----|----|----|----|-----|------|-------|--------|----------|----|------------|-----|--------|---------|-----|-----|------|-----|------|-----|
| Test 2011-2 56-DAY PERFORMANCE REPORT ~ August 20, 2011 | | | | | | | | | | | | | | | | | | | | | | |
| ID | | EPDs | | | | | | | | | | | lj Weaning | | OnTest | 56-Days | | | | | | |
| Number | Sire | BW | WW | YW | MK | TM | SC | REA | %IMF | FAT | Date | WT | WT | RAT | NC | WT | Age | WT | ADG | RAT | WDA | RAT |
| X008 | DDD UC Gentleman 804S21 | 3.3 | 37 | 63 | 16 | 35 | 1.1 | 0.62 | 0.09 | 0.000 | 11/08/10 | 98 | 609 | 107 | 12 | 658 | 285 | 866 | 3.71 | 108 | 3.04 | 102 |
| X009 | SR Wrangler Warrior T113 | 0.5 | 38 | 65 | 19 | 38 | 0.6 | 0.57 | -0.05 | -0.012 | 11/08/10 | 82 | 609 | 107 | 12 | 658 | 285 | 896 | 4.25 | 124 | 3.14 | 106 |
| X014 | SR Wrangler Warrior T113 | 3.1 | 45 | 72 | 18 | 40 | 0.4 | 0.42 | -0.03 | -0.012 | 11/11/10 | 96 | 651 | 114 | 12 | 674 | 282 | 866 | 3.43 | 100 | 3.07 | 103 |
| X015 | SR Wrangler Warrior T113 | -3.0 | 24 | 44 | 19 | 31 | 0.3 | 0.31 | 0.02 | -0.011 | 11/12/10 | 66 | 518 | 91 | 12 | 552 | 281 | 716 | 2.93 | 86 | 2.55 | 86 |
| X023 | DDD UC Gentleman 804S21 | 3.8 | 45 | 74 | 16 | 38 | 1.1 | 0.63 | 0.08 | -0.003 | 11/15/10 | 96 | 692 | 121 | 12 | 740 | 278 | 980 | 4.29 | 125 | 3.53 | 119 |
| X031 | PR Elixir 698L3 | -1.9 | 24 | 47 | 20 | 32 | 0.3 | 0.28 | 0.19 | 0.010 | 12/18/10 | 76 | 566 | 99 | 12 | 528 | 245 | 746 | 3.89 | 114 | 3.04 | 102 |
| X036 | PR Elixir 698L3 | 1.5 | 38 | 62 | 19 | 38 | 0.5 | 0.16 | 0.15 | 0.011 | 12/22/10 | 92 | 590 | 103 | 12 | 534 | 241 | 738 | 3.64 | 106 | 3.06 | 103 |
| X043 | PR Elixir 698L3 | -0.1 | 30 | 48 | 22 | 37 | 0.4 | 0.22 | 0.08 | 0.004 | 01/09/11 | 88 | 583 | 102 | 12 | 488 | 223 | 702 | 3.82 | 112 | 3.15 | 106 |
| X022 | SR Wrangler Warrior T113 | -0.3 | 25 | 45 | 22 | 35 | 0.4 | 0.24 | 0.05 | -0.014 | 11/15/10 | 84 | 486 | 100 | 1 | 504 | 278 | 654 | 2.68 | 78 | 2.35 | 79 |
| X042 | PR Elixir 698L3 | -2.5 | 25 | 45 | 22 | 35 | 0.4 | 0.38 | 0.08 | 0.000 | 01/04/11 | 74 | 560 | 100 | 1 | 482 | 228 | 592 | 1.96 | 57 | 2.60 | 87 |
| X085 | TCB Catawba Warrior R532 | -1.7 | 29 | 57 | 16 | 31 | 1.5 | 0.62 | 0.03 | 0.004 | 11/12/10 | 71 | 596 | 100 | 1 | 590 | 281 | 816 | 4.04 | 118 | 2.90 | 98 |
| 9Y3 | SLF Mr Elixir's Punch 797U | -0.9 | 20 | 36 | 12 | 22 | 0.2 | 0.19 | 0.00 | -0.008 | 01/14/11 | 65 | 618 | 102 | 4 | 477 | 218 | 654 | 3.16 | 92 | 3.00 | 101 |
| 20Y1 | SLF Mr Elixir's Punch 797U | 0.1 | 23 | 40 | 13 | 24 | 0.2 | 0.14 | 0.01 | -0.009 | 01/29/11 | 75 | 651 | 100 | 4 | 473 | 203 | 650 | 3.16 | 92 | 3.20 | 108 |
| 48X | SLF Mr Elixir's Punch 797U | 0.8 | 22 | 43 | 14 | 25 | 0.2 | 0.27 | 0.03 | -0.010 | 12/19/10 | 80 | 658 | 109 | 4 | 610 | 244 | 784 | 3.11 | 91 | 3.21 | 108 |
| 436X1 | SLF Mr Elixir's Punch 797U | -1.7 | 14 | 30 | 9 | 16 | 0.3 | 0.06 | -0.06 | 0.000 | 12/15/10 | 65 | 533 | 88 | 4 | 491 | 248 | 676 | 3.30 | 96 | 2.73 | 92 |
| 15 | Total Bulls | 0.1 | 29 | 51 | 17 | 32 | 0.5 | 0.34 | 0.04 | -0.003 | | 81 | 595 | 103 | | 564 | 255 | 756 | 3.43 | 100 | 2.97 | 100 |

Average EPDs for BRANGUS Nonparents from Fall 2011 Sire Summary BRANGUS Non-Parents 0.7 23 42 11 22 0.5 0.29 0.015 -0.002

FREEMARTINISM: WHAT IS A FREEMARTIN?

{Our good friend Dr. Glen Selk is now retired from Oklahoma State University, but that does not stop him from writing straight to the point reviews on important topics.}

Freemartinism is recognized as one of the most severe forms of sexual abnormality among cattle. This condition causes infertility in the female cattle born twin to a male. When a heifer twin shares the uterus with a bull fetus, they also share the membranes connecting the fetuses with the dam.

A joining of the placental membranes occurs at about the fortieth day of pregnancy, and thereafter, the fluids of the two fetuses are mixed. This causes exchange of blood and antigens carrying characteristics that are unique to heifers and bulls. When these antigens mix, they affect each other in a way that causes each to develop with some characteristics of the other sex.

Although the male twin in this case is rarely affected by reduced fertility, in over ninety percent of the cases, the female twin is completely infertile. Because of a transfer of hormones or a transfer of cells, the heifer's reproductive tract is severely underdeveloped and sometimes even contains some elements of a bull's reproductive tract. A freemartin is genetically female, but has many characteristics of a male. The ovaries of the freemartin do not develop correctly, and they remain very small. Also, the ovaries of a freemartin do not produce the hormones necessary to induce the behavioral signs of heat. The external vulval region can range from a very normal looking female to a female that appears to be male. Usually, the vulva is normal except that in some animals an enlarged clitoris and large tufts

of vulval hair exist. Freemartinism cannot be prevented; however, it can be diagnosed in a number of ranging from simple ways examination of the placental chromosomal membranes to The cattleman can evaluation. predict the reproductive value of this heifer calf at birth and save the feed and development costs if he is aware of the high probability of Freemartinism. In some cases, a single birth female may indeed be a freemartin because her male twin aborted at an earlier stage of This fortunately is a gestation. pretty rare occurrence.

Estimates of the percentage of natural beef cattle births that produce twins vary. One estimate (Gilmore) puts the percentage at about .5% or 1 in every 200 births. Approximately one-half of the sets of twins should contain both a bull and a heifer calf.

(Original Source: "The Causes and Effects of Freemartinism in Cattle" by Laurie Ann Lyon.)

HONORS WELL EARNED

Good friend and great cattleman Lee Alford, ALFORD CATTLE COMPANY, Caldwell, TX

"Where the Cattle Business IS our Business" was named 2010 Commercial Producer of the year by the International Brangus Breeders Association.

Friends going back 40 years Reuben and Dr. Connee Quinn, Quinn Cow Company were named Commercial Producer of the year by the Beef Improvement Federation.

Kansas friends Joe and Connie Mushrush of Mushrush Red Angus nailed the Beef Improvement Federation Purebred Producer of the year award.

Oftentimes we do not celebrate those in the industry who are pioneers, leaders and innovators. We salute these and feel honored to know them and call them friends.

POINTS TO PONDER

"The wisest mind has something yet to learn."

"Knowledge speaks, but wisdom listens."

"The key to wisdom is knowing the right questions."

"The courage to speak should be matched with the wisdom to listen."

--- Unknown

"Anyone who stops learning is old, whether at 20 or 80. Anyone who keeps learning stays young. The greatest thing in life is to keep your mind young."

--- Henry Ford

"Flaming enthusiasm, backed up by horse sense and persistence, is the quality that most frequently makes for success."

--- Dale Carnegie

"Good ideas are common - what's uncommon are people who'll work hard enough to bring them about."

---Ashleigh Brilliant

"Whatever you do, do it with all your might. Work at it, early and late, in season and out of season, not leaving a stone unturned, and never deferring for a single hour that which can be done just as well now."

--- P. T. Barnum

"Perhaps the most valuable result of all education is the ability to make yourself do the thing you have to do, when it ought to be done, whether you like it or not."

--- Thomas H. Huxley

"The highest reward for your work is not what you get for it, but what you become by it."

--- Unknown

SEMEN FOR SALE SPITZER RANCH IS "WARRIOR GENETICS"

The following bulls are some of the reasons why we have attracted attention from some of the nation's leading Registered Brangus Breeders and profit driven Professional Commercial Cattlemen. All bulls: 10, 20 or 30 Units at \$25/Straw; 40 or 50 Units at \$20/Straw and 60 or more Units at \$18/Straw. All semen sold in 10 straw lots only.

TCB Catawba Warrior R532

BW -1.4, WW 39, YW 75, MK 24, TM 44, SC 1.5, REA 0.83, IMF 0.03 and FAT 0.019.

- •Awesome top 4% or better in 5 traits plus top 15% or better in 2 other traits with a 6 Frame.
- •Trait leader for YW (#15), REA (#17), SC (#11) and increased FAT (#3).
- •One of only four YW trait leaders with a *minus* BW EPD.

SR Cadence Warrior S702

BW -4.6, WW 24, YW 57, MK 18, TM 30, SC 1.0, REA 0.11, IMF 0.06 and FAT 0.005.

- •Top 25% or better for 5 traits with absolute calving ease.
- •Trait Leader for BW (#7) Highest YW EPD bull on Trait Leader List for low BW.

SR Wrangler Warrior T113

BW 0.9, WW 38, YW 63, MK 18, TM 37, SC 0.5, REA 0.35, IMF -0.02, FAT -0.015.

- •Top 15% or better in 5 traits with a 6 Frame.
- •Trait Leader for decreased FAT (#20).

Pictures at www.srbulls.com or call 864/972-9140 for more details. Other bulls are also available, some bulls at drastically discounted prices.

HETEROSIS & MUST

Can you live without heterosis? Probably you can, but your cow herd will suffer from higher death loss, less vigor, increased disease and parasite problems, a shorter productive life, lower fertility and more open cows, less milk and consequently less growth.

"Managed maternal heterosis must increase. It remains one of the most cost-effective ways to increase production with the same resources or to maintain production with fewer resources." states Beef Magazine's Wes Ishmael.

Heterosis is scientifically defined as: the increased performance of a crossbred animal compared to the average performance of the parent breeds in the cross. However, it seems obvious that to be useful and profitable, the performance of the crossbred animal must be greater than the performance of the best parent breed in the cross. Almost always, it certainly is!

At the risk of over simplification, Heterosis occurs because the better level of performance desired in most traits (fertility, for example) is at least partially the result of dominant genes. Not a performance trait, but all beef producers understand genes occur in pairs and that black coat color is dominant to red. So if an animal has two genes for red, it is red. If an animal has two genes for black, obviously it is black. But, if an animal has one gene for black and one gene for red it is also black as the black gene dominates the red gene.

{Simply if B represents black and b represents red then bb is red and BB is black, but Bb or bB are both also black due to dominance}

In a parallel thought, if fertility was controlled by on gene pair, a cow with one gene for greater fertility and one gene for less fertility would be just as fertile as another cow with two genes for greater fertility because of dominance.

{Simply if F represents greater fertility and f represents less fertility then ff is less fertile and FF is more fertile, but Ff and fF are both also more fertile due to dominance.}

That is very simplified as there is certainly more than one gene pair controlling fertility. We do not know how many gene pairs are involved, but it is probably hundreds and could be thousands.

More definitions - an animal with two like genes is homozygous for that gene pair and one with two different genes is heterozygous for that gene pair. From our two previous examples; bb and BB, and ff and FF are all homozygous and Bb and bB, and Ff and fF are all heterozygous at those gene pairs.

Purebred or straight-bred cattle tend to be more homozygous for both favorable and unfavorable genes. Among purebreds and straight-breeds those homozygous favorable and unfavorable gene pairs are not all the same.

So, let's continue with over simplification and assume there are only six fertility genes (please recognize there are many more than 6 gene pairs actually involved with fertility). Our simple breed X bull has 6 homozygous gene pairs for fertility - AA, BB, cc, dd, EE and ff. A count yields 3 dominant gene pairs for greater fertility (AA, BB and EE) and 3 gene pairs for less fertility (cc, dd and ff). AND our simple breed Z cow has 6 homozygous gene pairs for fertility - aa, bb, cc, DD, ee, and FF. A count yields 2 dominant gene pairs for increased fertility (DD and FF) and 4 gene pairs for less fertility (aa, bb, cc and ee).

Since the offspring from this mating get one gene pair from the bull and one gene pair from the cow, the daughter from this mating

would have the 6 gene pairs for fertility - Aa, Bb, cc, dD, Ee and fF. Counting again now yields 5 heterozygous gene pairs (Aa, Bb, dD, Ee and Ff) each with a dominant gene for increased fertility and only one homozygous gene pair (cc) for less fertility.

In summary, Bull X had 3 of his 6 homozygous gene pairs dominant for increased fertility. Cow Z had 2 of her 6 homozygous gene pairs dominant for increased fertility. But the daughter produced from this mating has 5 of 6 heterozygous gene pairs with one of each pair being dominant for increased fertility and she will therefore be more fertile.

This exercise has been a far too simple example of why we get heterosis by crossing two breeds. When different purebred cattle are crossed, the crossbred offspring are always more heterozygous at more gene pairs and benefit from dominance at many gene locations. The animal with more heterozygous exhibits increased pairs fertility, greater milk production and increases in almost performance traits that result in increased production at generally less cost.

We assume every beef producer recognizes that not all crosses generate equal heterosis. Greater effects occur when the two breeds involved are more genetically "unlike". That is why crossing Bos (English Taurus Cattle and Breeds) with Continental Bos Indicus Cattle (Brahmans and American Breeds created from Brahmans) always generates increased heterosis. Data from MARC, Clay Center, Nebraska show a doubling of heterosis crossing Bos Indicus X Bos Taurus breeds than what occurs by crossing Bos Taurus X Bos Taurus breeds.

An example would be that crossing Brangus X Hereford will

give approximately twice the amount of heterosis than will be achieved by crossing Angus X Hereford. This is especially so in maternal traits like fertility and longer productive lives.

In practice, the first cross is called an F1. That is the Brangus X Hereford in our example is an F1 and the F1 exhibits 100% of the available heterosis. Producing F1s requires two purebred parents to produce those F1s that is generally not practical on most commercial beef operations. Our compromise is usually a two-breed rotational system where the F1 is bred to one of the parent breeds and then subsequent generations are bred to the breed of least contribution to that animal's makeup. If we bred our Brangus X Hereford cow back to Brangus, the next generation of daughters would be 3/4 Brangus and 1/4 Hereford Those 3/4:1/4 cows would then be bred to Hereford and the rotation continued. The amount of heterosis exhibited in that system would average 67% of the heterosis in the F1. However, simplicity has value and we have rarely seen any one successfully maintain anything more complicated than a two breed rotational crossbreeding system.

In short, we just don't see how a commercial cattle producer can ignore the many benefits obtained through a simple, well planned crossbreeding system. Obviously our recommended system includes Brangus, and our other logical choices would be Angus, Red Angus or Hereford in a two breed rotation with Brangus. Carefully chosen Balancer and Simangus seem to work as well. We leave you with a quote from Dr. Matt Spangler at University of Nebraska, "Today, if you are a commercial beef producer and you are not crossbreeding, you are wasting your time and effort. If that offends you, you deserve it."

FOR SALE

Four Registered Brangus heifers bred to SR Medicine Man W415 (R10153627) for 45 days - Feb 16 thru Mar 29, 2011. All ³/₄ sisters sired by Aces TF Wrangler 145/8 (R719316) out of Cadence of Brinks 535D3 (R593769) dams. Outstandingly excellent!

W414 (R10153626) W424 (R10153636) W432 (R10153644) W434 (R10153646) \$3000 each for all 4 (FIRM).

LONGING FOR NOSTALGIA

ROY ROGERS PRAYER

Lord, I reckon I'm not much just by myself; I fail to do a lot of things I ought to do. But Lord, when trails are steep and passes high; help me ride it straight the whole way through.

And when in the falling dusk I get that final call; I do not care how many flowers they send. Above all else, the happiest trail would be for YOU to say to me, "Lets ride, My Friend." AMEN

ROY ROGERS RIDERS CLUB RULES

- 1. Be neat and clean.
- 2. Be courteous and polite.
- 3. Always obey your parents.
- 4. Protect the weak and help them.
- 5. Be brave, but never take chances.
- 6. Study hard, and learn all you can.
- 7. Be kind to animals and care for them.
- 8. Eat all your food and never waste any.
- 9. Love God and go to Sunday School regularly.
- 10. Always respect our flag and Country.

NEWS YOU CAN USE

{This is an abstracted version of an article "Organic Meat Aspects Assessed" Robert Blair, bv FEEDSTUFFS, August 15, 2011. It in turn was an abbreviated version of an extensive series of articles by You can view his original Blair. and complete articles www.feedstuffsfoodlink.com in the "Did You Know" section.}

Organic production is a response to consumer demand for meat that is perceived to be free of "harmful" chemicals and of higher nutritional value than conventionally produced beef. An important question is whether organic meat contains chemical residues fewer conventional meat. Although there are little data from any regulatory agencies, a few comparisons of organic and conventional beef have been conducted

Smith and others (1997) at the Center for Red Meat Safety and the Warren Analytical Laboratory in Colorado analyzed muscle, fat, liver and kidney samples from beef animals labeled as organic and natural and conventionally grown beef. There were no increases in violative levels of steroids, sulfa tetracycline or antibiotics in samples from any of the three groups. When violative residues were found, the residues were of pesticides and then found only in liver tissue.

However, the highest occurrence of residue was in livers of beef cattle produced in natural systems (6 of 1575 samples or 0.38%) and livers of beef cattle produced in organic systems (6 of 1575 samples or also 0.38%). Livers from beef cattle produced in conventional systems had residues in 3 of 1500 samples or 0.20%; about one-half of the residues found in organic or natural beef. None of these pesticide residues were of any level

to cause concern in any of the liver samples and no pesticide residues of any kind were found in the meat from cattle produced in any of the three systems.

There have been a few similar studies conducted with pork and chicken; all leading to the same All of the official conclusion. bodies that have assessed the scientific evidence have concluded our meat supply is safe from residues of any kind whether grown conventionally or grown as organic or natural. Foods from animals fed or administered approved products have been deemed safe. These regulatory and monitoring bodies include the US Food and Drug Administration, the US Department of Agriculture, Health Canada, the World Health Organization and the Food and Agriculture Organization of the United Nations.

In conclusion, monitoring studies conducted by official agencies indicate that the meat supply in North America is not heavily contaminated by chemical and pesticide residues or dioxins and similar environmental contaminant. The residue levels found in the various surveys can be regarded as trace amounts that are not in violation of accepted standards. Similar results have been reported in other countries.

The limited findings available on organic meat indicate that it is highly unlikely that there is any difference in the occurrence of chemical residues of drugs, vaccines. pesticides, antibiotics hormones and/or growth promotants in conventional versus organic beef. Research findings show that organic meat is not completely devoid of residues.

What has been documented, however, is beef animals raised in organic systems grow more slowly and produce leaner carcasses. As a result, the beef tends to have less

marbling and is not as tender. Similar findings have been reported in pigs and poultry, with research suggesting tougher meat; probably related to slower growth and older animals at slaughter weights. While perceptions about organic and natural play a role in consumer purchasing decisions, science does not document these perceptions.

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