



The GAR REPORT

Fall 2006

PROUD TO BE A FOUNDING MEMBER OF U.S. PREMIUM BEEF

Editor's Note: The fall issue of the *GAR Report* features detailed information regarding our upcoming 2nd Annual Fall Bull Sale. Most all of the bulls in this offering were raised in our ET cooperator herds. The data on these bulls is remarkable. The average of the entire offering ranks them in the top 3% for \$Beef value as well as the top 5-15% in the important traits. The complete sale catalog is available on our website: www.gardinerangus.com.

As you will notice, we are reprinting a couple of articles previously printed in this newsletter. We feel the article, *Selection for \$B Makes Cents*, is one of the most important and relevant articles in some time and is worthy of reprinting. *Reproduction, Growth Traits—Can We Have It All?* is essentially the text of the majority of talks Mark is asked to present. Revised in 2006, we feel it is particularly relevant to express our total commitment to this type of breeding and selection discipline.

As always, our friend and colleague Troy Marshall, has "hit the nail on the head" with his article and we appreciate Troy's permission to reprint his editorial.

GAR 2nd Annual Fall Bull Sale Offering Ranks in top 3% for \$Beef



GAR Predestined M505 has quite simply tabulated one of the best non-parent genetic predictions in our history. His \$Beef is the absolute highest \$B index in this sale!



GAR Predestined N6305 is one of my absolute favorites, realizing that the "N" bulls are a bit younger he still made his way to lot 2. This bull is an awesome prospect for virtually all traits of economic importance. Lot 2 is the #1 %IMF bull in this sale.



GAR Retail Product C515—Power, Performance, Prepotency, 2536. This is a Stock Bull!



GAR Retail Product T685 should be adept at adding value across the board, check out 1391's % IMF record—no surprise that he has a +.81 %IMF EPD.

Since 1999, GAR customers using our USPB delivery rights have received over \$2,012,223 in premiums and dividends. If you retain ownership, that's valuable marketing information!

Since 1885



If you have industry related questions or specific issues that may be addressed in *The GAR Report*, please submit to:

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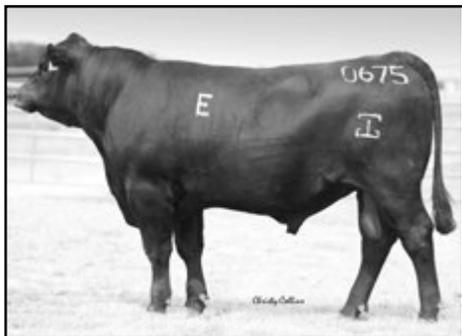
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The bulls selling in our 2006 fall sale represent a total A.I. program with no clean-up bulls since 1964. We have only used progeny proven bulls in GAR sire selection since the very first sire summary was published in the fall of 1980. We use a great deal of discipline in our sire selection to produce bulls that provide GAR customers with the most predictable cattle possible. Using high accuracy bulls through A.I. is the only way to produce this type of bull. Using clean-up bulls or low accuracy A.I. sires only propagates genetics of unknown quantities. Premiums are paid now, more than ever before, for documented information! The best way for our customers to insure predictability is to use sons of progeny proven sires. We invite you to study the 296

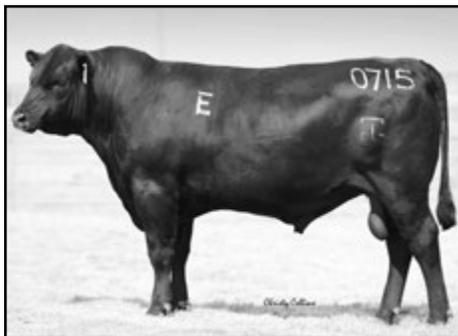
bulls in this catalog. All are sons of the best bulls of the Angus breed.

Embryo Transfer is a technology that allows us to provide better genetics to our customers. This fall sale is almost exclusively the result of ET. These bulls were almost all raised in our ET cooperator herds. Each letter on the bulls ID would represent a different contemporary group raised in a different location. The bull's individual data is not comparable between contemporary groups, but the data is to be used to compare within a management group. Of course, as always the EPDs are comparable.

The bulls were fed for 91 days at Triangle H Feedyard, Garden City, Ks. Their start weight was 807 pounds and out weight was 1280 pounds. The average daily gain on the 296



GAR Solution E0675—Solution is one of the greatest sires in the history of GAR! E0675 could be one of his best sons ever!



GAR Solution E0715 has the 2nd highest %IMF EPD in this sale. If you would like to make dramatic change in quality grade this bull can help! Pure calving ease excellence with marbling and growth.



GAR Retail Product H505—Retail Product out of Prime Design's sister. He has one of the highest %IMF ratios in this sale. Top 1% rankings for %IMF, \$G, and \$B.



GAR MC Integrity J5023 is a joint venture between GAR and Maplecrest farms of Ohio. I nicknamed this bull 20" because of his actual 20.4" REA, that adjusted to 19.7". I think that Lindsey Grimes knows how to breed them with pure power and thickness! This bull is should certainly have the ability to add quality pounds of muscle!

bulls was 5.20 lbs/day. Since May 31, all of these bulls except the "N" bulls have been running in section or larger pastures. The bulls were gathered in mid August to be semen tested and clipped for the sale. These bulls are hard and ready to go to work.

We believe it is interesting and important to note that the AVERAGE EPDs of the 296 bulls offered in the fall 2006 sale are: CED +9 BW +1.7 WW +44 YW +87 YH +.3 Sc +.05 Milk +27 CEM +8 \$EN -.78 %IMF +.43 RE +.49 Fat +.005 \$W +27.15 \$F 29.80 \$G +24.83 and \$B +48.78. In comparison to our April sale bulls average \$Beef index of 45.04, the fall bulls have a \$3.74 advantage as a group with this important index. These EPDs are a good example of how GAR's "pounds in the correct package" selection process is working. It is interesting to note that the AVERAGE BULL IN THIS SALE ranks in the top 10% of the Angus breed for direct calving ease, the bottom 35% (lighter BW) for birth weight while these same bulls simultaneously rank in the top 30% of the breed for weaning weight, and their yearling weight

ranks them in the top 17% of the Angus breed. Furthermore, this top percentile growth has been achieved in a package that is in the BOTTOM 35% of the Angus breed for yearling hip height. These bulls have exhibited an acceptable birth weight followed by explosive growth to the endpoint which was their off test weight, while ONLY having an average adjusted off test frame score of 6.1. We expect these bulls to sire similar efficient traits in their offspring. The great news of the Angus breed is that we are able to select for explosive cattle, while simultaneously selecting for superior end product merit. This sale's bulls have a %IMF EPD of +.43, a RE EPD of +.49. This places the sale bulls in the TOP 5% of the breed for %IMF, and the TOP 12% of the breed for RE. Finally, when you study where the bulls rank for the \$value indices it is interesting to note they rank in the top 16% for \$W, the top 16% of the breed for \$F, the top 6% for \$G, and top 3% for \$B. We believe these genetic predictions and indexes help to illustrate how we have successfully bred cattle with acceptable stature, growth and end product in mind.

Sires Represented in the Fall Sale

Bon View New Design 140770 Head
 G A R Retail Product.....50 Head
 G A R Predestined.....28 Head
 G A R Precision 168022 Head
 Rito 1i2 of 2536 Rito 6i619 Head
 C A Future Direction.....17 Head
 Bon View New Design 20815 Head

G A R Yield Grade14 Head
 G A R Solution12 Head
 G A R Grid Maker.....12 Head
 G A R Integrity9 Head
 Rito 6i67 Head
 G A R Expectation.....5 Head

Economics Reshaping Genetic Focus

—by Troy Marshall, *Seedstock Digest*, August, 2006

The emphasis on pounds is certainly nothing new. Capacity utilization, or through put, have always ruled the packing and feeding industries, and, while never to the same degree, pounds have always mattered at the cow/calf level as well. There has always been discussions about the genetic antagonisms and tradeoffs between growth and maternal at the cow/calf level, but I believe we are seeing something of an entirely different magnitude. These factors are combining to send a unique set of market signals that likely will begin finding its way through the system. The market signals are clear. We are going to try and add more pounds of live weight per animal in the short term. Pounds have become such a critical factor that the average feedyard animal is already being taken well past their ideal biological endpoint in order to achieve their ideal economical endpoint. Anyone who has been talking to feedyard managers is already hearing grumbling about the number of YG 4's and insufficient growth genetics in some of the cattle. Relatively, YG 4's are not excessively fat, they simply lack enough muscle at higher carcass weights and are insufficient in REA/cwt. Interestingly, in the past a lack of growth genetics was largely blamed on breed types. That still is the case, relative to muscle, but is no longer true for simply pure pounds.

The beef industry is going through a major paradigm shift that will likely lead the next great trend. In the past, demand for growth was such that it could still be fulfilled in our do-all-things-for-all-people genetic selection frame of mind. In retrospect, it is now obvious that the three most significant genetic trends of recent times have come as a response to the economic driver of growth. Three overriding trends (individual breeds have experienced more significant trends at the micro level) have influenced the entire industry. 1. The selection pressure placed on curve benders. This enabled us to make dramatic improvement in growth genetics while keeping birth weight and mature size in check. 2. The incredible trend in growth also enabled a shift in breed types back to British genetics, while providing acceptable growth. 3. End product selection. We made so much improvement in actual gain that the composition of the gain became important.

Value-based marketing grids and a host of other factors have conspired to increase the emphasis on growth. The seedstock industry has done a wonderful job of responding to that

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(Economics—continued from page 2)

trend. Many people are suggesting that the industry's inability to improve quality grade, despite making breed changes and placing increased genetic selection pressure for it, is because the genetic trend for growth has, in fact, overpowered it. If this is the case, selection for carcass traits will continue to be a major emphasis, despite the selection pressure that has been applied on end product merit. It appears the demand for growth has prevented both quality and yield to keep up. It would be analogous to being a transmission manufacturer and continually upgrading the capabilities of your transmission, but having the engine manufacturers adding power at such a rate that your transmission performance is actually declining.

So you may be asking, are we simply talking about the ratcheting up of the major trends that have been in existence for quite some time? What has that to do with a major paradigm shift? The answer is that our conventional means of responding to these trends are suddenly becoming insufficient and inadequate. The ability of selecting for curve benders while keeping mature size on the maternal size in check is still valid but it is simply insufficient. The emphasis on carcass selection may actually increase, but again, in a dramatically different context than in the past. The race was whether or not we could increase growth and efficiency to hit the end target weights, while keeping the cow herd in an optimal range from a maintenance requirement standpoint. However, the beef industry is at the very precipice the pork, poultry and dairy industries reached a long time ago.

The dairy industry had a much narrower range of economic drivers and they went another direction than the hog and poultry industries. All three industries had to decide how to most effectively reach their targets. We can probably draw some distinct conclusions from these industries. First, they abandoned the one animal, one-line-can-do-everything approach, developing distinct maternal and terminal lines. They also rewrote their definitions for excellence in these categories as they looked at efficiency and quality from a total systems approach.

The industry has already done this to some extent. Everyone still wants the mythical 1100 lb cow, but the vast majority has increased cow size in order to hit industry targets. I know that some people routinely claim the industry is not responding properly to economic signals, but I believe the one thing we do extremely well is respond to the economic signals being sent. We know in some extreme environments bigger cows may pose too much risk during drought years. Yet, we also know, while miniscule at typical mature sizes, efficiency, if anything, is in favor of the larger cow. Given the high maintenance demands of beef

production and per unit costs of production, theoretically, economics probably favor the intermediate or larger cow within today's normal production ranges. Yet, we also know we are bumping up against the top of the acceptable range for mature size. The result is we are likely to see far more terminal breeding schemes and specialized line production for maternal lines to fit specific environments and management goals. Seedstock producers will likely find this increases the value of genetic outliers, but also decreases the value paid at the commercial level for specific genetic packages. With less need for multi trait excellence in a single package, it will be easier to find animals that will hit specific targets. These were the very forces that conspired to ignite the hybrid revolutions in the pork and poultry industry, and led to widespread consolidation in the seedstock industry, as it demanded a whole new level of sophistication and information analysis to identify and propagate the appropriate lines. Of course the varied environments and more diverse production schemes, coupled with the incredibly capital intensive nature of our business, will preclude the level of concentration that we have seen in these other industries.

The bottom line is the demand for growth is outstripping our ability to meet those goals and meet the requirements for "balanced" trait cattle. Instead we will see the growth of targeted terminal and maternal lines and or hybrid/derivative/composite cattle. If we follow the trends of other species when they reached this nexus, then we will see a whole new era in information analysis and collection in order to fine tune these lines to hit specific targets. It will be this expertise, more than genetics per se, that will serve as a differentiator. It is also likely to rewrite or reshape the way genetics are delivered and purchased.

Take advantage of added value with a G³ tag

The Guaranteed Gardiner Genetics (G3) Tag Program has been established to add value to Gardiner-influenced commercial cattle. Through IMI Global, Inc., the program provides source and age verification using IMI's USVerified™ program. In addition, the G³ program gathers health and genetic information on enrolled cattle.

The Program Includes:

- Age verification (individual or group age)
- Source verification • Cow herd make-up
- Breeding information (replacement females)
- Health/vaccination information
- Genetic information

For further information regarding eligibility, enrollment and fees, please contact Mark Gardiner (620) 635-2760, gar@ucom.net or Julie Tucker at Graphic Arts of Topeka, (785) 354-8596 ext. 115, GGG@gathh.com.

Reproduction, Growth, Carcass Traits—Can We Have It All?

—by Mark Gardiner, Revised 2006

This is a very easy question to answer: YES, WE CAN HAVE IT ALL!

Beef cattle production is easier today than any time in history. Reproduction has always been, and will always be the number one performance trait. Cattle must be given a job description. Job one is to reproduce. Cattle that do not reproduce must be eliminated. Cattle that do reproduce should then be selected for the economically-important traits.

When my father began breeding cattle he did not have the information necessary to change growth or carcass traits. Prior to the first American Angus Association Sire evaluation report published in the fall of 1980 we either made Angus cattle shorter or taller, but we did nothing to make a more efficient beef animal. Actually, as seedstock producers we are fortunate that commercial producers didn't sue us, because in reality the bulls we sold them only made their cows give milk – "cow fresheners." Prior to the Sire Summary we did nothing to change the genetics for growth, let alone produce a better beef product for consumers. Today, we can use genetic selection to create Angus cattle that we thought were impossible 20 years ago.

The American Angus Association has built a database that is the best in the world. I find it astonishing even today there are Angus breeders who doubt the validity of this information. I find it even more amazing some Angus breeders still do not use this information. I have heard it said that with all of the EPDs and dollar indexes we have today that it is too complicated to sort it all out. The reality is if breeders will use EPD's and \$Values, the sky is the limit on the opportunities that they represent.

When I was learning to use EPDs and database selection systems in the early 1980's, two of my mentors, Roy Wallace, and John Crouch, used to say, "Mark, you cannot have low birth weight, high growth, moderate-framed cattle because these are all antagonistic traits." What they meant by antagonistic traits was that in general, higher growth cattle tend to have larger birth weights and a larger mature size because of the positive correlation among growth traits. However, when cattle that defied these correlations were identified using the Angus database, it became possible to select them and change the population.

(Reproduction—continued from page 3)

Now we can expand our use of those outlier bulls. This is our OPPORTUNITY, and is what has made the Angus breed what it is today and what it will be tomorrow.

A great way to demonstrate the power of the Sire Summary is to sort bulls using the Angus Association's database search on the internet (<http://www.angus.org/sireeval/>). There are 2,462 sires in the Fall 2006 Sire Evaluation Report. There are 18 traits with EPDs listed in the Sire Summary, and 7 \$Value Indexes. Let's search the Angus Evaluation Database to find a sire that is:

- In the bottom 1% of the breed for birth weight—SMALL AT BIRTH
- In the top 10% of the breed for yearling-weight—FAST GROWING
- Bottom 55% of the breed for yearling hip height
- In the bottom 25% for mature daughter height—MODERATE SIZE
- Positive for scrotal circumference—PRODUCTIVE
- In the top 25% of the breed for RE (ribeye)—HEAVILY MUSCLED
- In the top 5% of the breed for intramuscular fat (% IMF)—HIGH MARBLING
- In the top 1% of the breed for \$BEEF Value—HIGH YIELD

If you add up all of the bull calves born during the same time period the 2,462 bulls in the Sire Summary were selected, you would find those bulls were selected from more than 2,500,000 bulls. So, how many bulls out of the 2,500,000 will fit my above criteria? There is ONE. The bull is GAR SOLUTION. Even though he was born on our ranch, I have to admit that I was not smart enough to know how good he was until his data appeared in the Sire Summary. I'll bet you the high school basketball coach who cut Michael Jordan from the basketball team, didn't realize what he had done until Michael Jordan had proven himself in the basketball arena, either. I know just how good this bull is because of our ability to measure, describe and identify economically important traits in Angus cattle. The secret in the Angus business is that we have the most powerful, accurate information source in the world: the Sire Evaluation Report. It is worth billions of dollars. You have this information at your fingertips, free of charge. USE IT!

Having the best database in the world doesn't mean that there are no decisions to make when using EPDs. Every breeder still has to decide which traits are most important to him and his customers. In my mind today, it comes down to deciding the relative importance of selection for growth, carcass traits and reproductive efficiency.

GROWTH

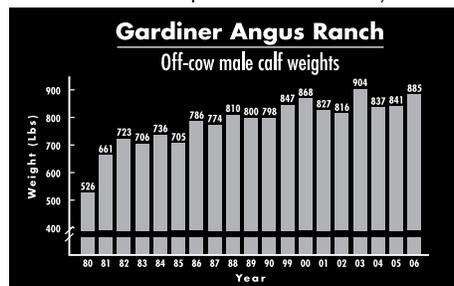
Producers are paid for pounds. Gardiner Angus Ranch tries to breed for as many

pounds as possible, provided we can produce those pounds in the correct package. To explain how we arrived at this breeding goal, I have to share a bit of our history with you.

Henry Gardiner started breeding Registered Angus cattle in 1947. For 33 years Dad tried as hard as he possibly could to make genetic change. In 1964 he began using an intensive artificial insemination (AI) program of, theoretically, the best bulls of the Angus breed. He was selecting bulls that looked good, or was a bull test station winner or a bull that was a purple ribbon winner. He became very frustrated because no matter how hard he tried to make genetic progress it did not work! The average weaning weights of our steer calves from 1964 to 1973 was 523 pounds. From 1974 to 1979 we creep fed our steers and also weaned them at earlier dates. Then in 1980 we returned to a comparable management of our steer calves and those calves still weighed 526 pounds. There had to be a better way. That better way was to establish the goals for our breeding program and to have the tools needed to reach those goals.

In the fall of 1980 Dad finally got the same tools that the dairy industry had used for many years when the first Angus Field Data Report (Sire Summary) was published. That was the first time that all of the most widely used bulls of the breed had been compared for the economically-important traits. This allowed Angus breeders for the very first time to make sire selection based on genetic merit for the selected traits. Starting in December of 1980, we began to rely heavily on EPDs to select our sires. Most of the bulls we use we have never seen. However, we select only progeny proven sires that have sired hundreds, if not thousands, of calves. We have a total AI program. No clean up bulls are used. We started an extensive embryo transfer program in 1987. We currently breed over 1,600 females per year and make about 2,000 embryo transfers every year. Every animal on Gardiner Angus Ranch is the result of AI or ET.

Our male calf weaning weights from 1980 through 2006 tell the rest of the story. We retained ownership of some home-raised steers through slaughter from 1978 through 1999. Over that 21-year period when our weaning weights were increasing so rapidly, the performance of our home-raised steers in the feedlot also improved dramatically.



The disciplined use of EPDs over a 20-year period dramatically improved the perform-

ance of our home-raised steers. The genetically improved steers were in the feedlot 50 days less than their herd mates two decades earlier, but still went to slaughter 262 pounds heavier than their earlier relatives. The genetic improvement was all done by the selection of sires. The mothers of the 1998-99 steers were out of the descendants of the same cowherd that produced the 1978-80 steers. The management and forage system was the same in 1998-99 as it was in 1978-80.

When my Dad mentioned to a friend that our bulls had done well in their 95-day feed test with the some gaining over 7 pounds per day, the friend's reply was, "Well how do you know that the faster gaining bulls don't just eat all the time and are not the most efficient gainers?" We could not answer that question to our own satisfaction until we examined the gain and dry matter conversion of our bulls on test from 1978-2006.

We have seen average pen gains go from 2.7 pounds per day in 1978 to 5.74 pounds per day in 2006. We have also observed that during the same time period feed conversion improved from 7.48 pounds of feed consumed on a dry matter basis for a pound of gain to 4.43 pounds of feed consumed on a dry matter basis per pound of gain. That's a 41% decrease in feed consumed per pound of gain, while we doubled their rate of gain. It's pretty obvious that selection for faster gain also produced cattle that were more efficient. In the 1980's we identified as our goals to wean 10-month-old steer calves at 800 pounds and to have our steers gain 4 pounds per day in the feedlot. We accomplished both goals by 1990. Before the year 2010 I predict that we will feed a pen of cattle that will have a feed conversion of a pound of gain from less than 4 pounds of feed on a dry matter basis. In addition to being efficient, those cattle will be gaining 6 pounds or more per day during their time on feed. That's a long way from weaning 526-pound steers that take 7.48 pounds of feed to produce a pound of gain at the rate of 2.7 pounds per day!

CARCASS TRAITS

Value based marketing is here. I have heard all my life that someday all cattle would be marketed based on the value of their end product. This becomes more true every day. In the past all fed cattle were marketed on an average pricing system. This led to huge premiums for the wrong cattle, because the best way to make money was to upgrade sorry cattle and receive an average price for them. When the Certified Angus Beef (CAB) program was started, this was a good program for consumers and the retailers who were marketing CAB, but there were not strong economic signals to "pull" more CAB cattle through the system. Granted, packers wanted to purchase Angus influenced cattle, but only for the "one price fits all" average price. This did nothing to

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Selection For \$B Makes Cents

—Reprinted with permission, Steve Suther, Certified Angus Beef®, *Black Ink Basics*™

Selection of breeding stock based on a single trait is risky, because progress may come at the expense of other production factors or beef quality. However, successful producers improve several traits simultaneously while maintaining balance among the others. American Angus Association dollar-value (\$Value) indexes offer an easy-to-use tool for multiple-trait selection. An evaluation of Angus sires since 1996 proves selecting for efficient, high-marbling calves does not set back other important traits. Producers can use the breed's top 10% of Beef Value (\$B) sires to produce calves with higher USDA Quality Grade premiums, lower Yield Grade discounts and better feedlot performance without sacrificing cow function.

THE FACTS

- Progeny from high \$B sires more than tripled the percent Prime, percent Select grade carcasses were cut in half and percent Standard carcasses decreased by more than half when compared to low \$B progeny.
- Percent Upper 2/3 Choice increased more than 34% when comparing high to low \$B sire progeny.
- Yield Grade 1s increased more than 20%, while 4s and 5s decreased by 5% comparing high to low \$B progeny.
- High \$B progeny had a 42 pound carcass weight advantage over low \$B progeny.
- Selection indexes for feedlot and grid value improved as \$B increased.
- Cow efficiency can be maintained with a focus on terminal traits among Angus sires. \$W, influenced by birth weight, maternal milk, mature cow size and weaning direct growth, was virtually the same in both high and low \$B sires at \$20.45 and \$20.58, respectively.
- High \$B progeny returned \$3.08/cwt more in premiums and had a net carcass value advantage of \$82.65 when using typical industry grid values.

Percent Change in \$B Sires			
	Top 10%	Bottom 10%	% Change
# of steer progeny	5498	3218	
Prime, %	8.9	2.7	227.2
Upper 2/3 Choice, %	46.5	34.5	34.6
Low Choice, %	35.5	44.0	-19.3
Select, %	8.6	17.7	-51.1
Standard, %	0.4	1.1	-58.7
Yield Grade 1, %	2.4	2.0	20.8
Yield Grade 2, %	33.9	31.9	6.2
Yield Grade 3, %	52.3	54.1	-3.3
Yield Grade 4 & 5, %	11.4	12.0	-5.0

ACTION STEPS

- Use the \$Value index as a tool to simplify multiple-trait evaluation.
- Target sires among the top 10% of the Angus breed in \$B values that are equal or better than the breed average in other Expected Progeny Differences (EPDs) important to production goals.
- Value visual appraisal. Examine sires for structural soundness and disposition.

MATERIALS & METHODS

- Data represents a more recent subset of 1,480 high-accuracy sires from the American Angus Association National Cattle Evaluation carcass database with 8,716 steer progeny harvested from 1996-2005.
- Top 10% and bottom 10% sire groups based on \$B each represent 148 sires.
- \$B is the expected average dollar per head difference in progeny postweaning performance and carcass value compared to progeny of other Angus sires, unlike \$G, which only evaluates carcass grid merit.
- A \$Value is based on an index that combines multiple traits into a number based on the expected difference of future progeny performance and typical market conditions. \$Values are expressed in dollars per head.
- \$Values are based on economic assumptions using a three-year industry rolling average for price.
- Sires in the top 10% \$B had a value more than \$40.65, and sires in the bottom 10% \$B had a value of less than \$6.50.
- Progeny grid analysis based on 2005 average grid prices/cwt.: Carcass base (Choice, YG 3) = \$139.14, Choice-Select spread = \$10.52, CAB® premium = \$5, Prime premium = \$20, Standard discount = \$20, YG 1-2 premium = \$2 and YG 4-5 discount = \$15.

Measurement Difference in \$B Sires			
	Top 10%	Bottom 10%	Difference
Fat at 12th Rib (in.)	0.54	0.56	-0.02
Carcass Wt. (lb.)	800	758	42
Marbling Score	6.31	5.81	0.50
Ribeye Area (in.)	12.8	12.3	0.5
Average Yield Grade	3.24	3.29	-0.05

ACKNOWLEDGEMENTS

Pricing data is from USDA, Cattle-Fax, Umer Barry Publications, and Certified Angus Beef LLC. \$Values are a selection index tool developed by the American Angus Association. More information is available at

www.angus.org/sireeval/valueindex.html

(We Can Have It All—continued from page 4)

pay producers more for producing a higher quality beef product.

One of the reasons I became involved in US Premium Beef (USPB), was because I felt commercial producers should receive more for using high quality Angus genetics. Today USPB pays \$20.13 per cwt. for each and every Prime carcass, and \$4.11 per cwt. for every CAB carcass. An 800-pound Prime carcass is worth \$161 dollars more per head, and an 800-pound CAB carcass is worth \$35 more per head. USPB is proud to pay some of the highest premiums in the business for high-quality Angus cattle, and I'm even more proud that we have helped the other packers see the light and pay more money for the high quality Angus cattle (trust me they didn't start doing it out of the goodness of their hearts). This is good news for the beef business because these economic incentives help pull the better beef products through to the consumer. The greatest news in the beef world today is that by improving product quality we have stabilized beef demand.

So what does this all mean to Angus breeders? We have Angus cattle. They put up good quality grades on the rail. We have Certified Angus Beef. Everything is great, right? WRONG! Barely 17% of all eligible Angus cattle meet the minimum requirements for CAB. The biggest reason CAB still struggles with supply is because carcass traits of Angus cattle have not been good enough. When you look at the selection strategies our breed has applied over the past 33 years you find that the Angus breed has increased the yearling growth by about 37%. However, during the same period you find that we have only improved the marbling by +.20 units and REA by +.25 in. and most of that has come in the last 5 years. In other words, we have made very little genetic change in our breed for carcass traits.

Carcass traits are highly heritable. We should be able to make more change with carcass traits than growth traits. We have not. WHY? The American Angus Association has the largest carcass database in the world, and it is increasing rapidly. Breeders have not used this information enough, but that's about to change.

The genetic trend for carcass traits has increased in the last 8 years and is going to "blast off" because the breed's commitment to ultrasound measurement of carcass traits. The Angus breed is now measuring "carcass traits" on over 120,000 head each year via ultrasound. Is ultrasound data accurate? YES! It is more accurate than carcass data. Everybody assumes that kill data is perfect, when the reality is that gathering kill data is very subjective, it suffers from the variability among USDA graders to the speed at which this data must be gathered. As your Angus colleague I encourage you to embrace this system, and measure your cattle in order to contribute to the data-



Don't just buy a breed. Buy A Brand.

(We Can Have It All—continued from page 5)

base. I predict that we will see more improvement in the Angus breed for carcass traits, in the next 5 years than we have seen in the previous 30. As your competitor, I would say if you don't believe in it, that's great! This just gives me more opportunity to breed the best cattle, and have a competitive advantage.

REPRODUCTION

Don't forget, reproduction is still the number one performance trait. Remember that fertility is a lowly heritable trait. According to Dr. Richard Saacke of Virginia Tech, semen evaluations can only account for 50% of the variation in fertility among bulls. On the female side, the environmental differences between neighbors may have more affect on cowherd fertility than differences in their genetics. I would love to place selection pressure on fertility that would allow me to effectively select bulls or cows with higher fertility, but I also think we should realize we are dealing with very low heritabilities on fertility traits. Heterosis will have more of an effect on reproductive traits than genetic selection during two of my lifetimes. Therefore, I believe it is important to place a heavy emphasis on fertility as a threshold trait. In other words, make cows conceive during a time restricted breeding season. It is important that cows work for you and not vice versa. Cows that do not work under their job description, need to find a job elsewhere.

We have been able to make genetic progress and maintain a cow herd that is reproductively efficient. Since 1964, Gardiner Angus Ranch has had a total AI program with no clean-up bulls. Since the inception of this program the heifers were given 30 days to conceive, or they exited the herd. The cows have always been bred on a 60-day breeding season. Since 1964, our pregnancy rate (pregnancy rate = total cows pregnant at the end of the breeding season divided by total cows

serviced) has been 95% or greater. The bottom line is: we didn't have to compromise reproduction to achieve genetic improvement.

CONCLUSION

I have heard it said that EPDs are just a fad and will not last long. Well this fad is well into its 26th year. Data based selection will become more and more a part of the beef cattle industry. Value-based marketing is a reality. It will be impossible to survive in the beef cattle business without a reliable database that allows cattle breeders to react to economic signals.

We believe in EPDs. Our goal has always been to produce a live calf that will grow as rapidly as possible to market weight and then quit growing. We believe you cannot have too much growth as long as that growth is in the "right package". We use 18 EPD traits and 7 \$Value Indexes to select our sires. We put a lot of selection pressure against birth weight; most of the bulls we use are in the 1.5-2.5 EPD range or less for birth weight EPD. We also put a lot of selection pressure against mature size, so we select sires that are in the bottom 10% for the yearling hip height EPD, and below breed average for the mature daughter weight and height EPDs. After applying the previous selection criteria, we select bulls with as much yearling weight as possible. Then we select bulls with adequate milk EPD. In general we keep our milk in the 20-28 range, but we do select some bulls with less milk for our customers who get less rainfall. Next, we look at the ultrasound EPDs. We want the sires to be positive for marbling (%IMF), ribeye area. We want the sires to be negative for the fat EPD. Finally, we use the scrotal EPD to make our sire selection. We would prefer to select bulls that are positive, but we do use some bulls that are negative for scrotal EPD. Finally, we use the \$Value indices as an indexing system to make our final selection. All of the indices are important to us, but in general we only use bulls

ranking in the top 1% of the Angus breed for the \$Beef index. We only select sires fitting the above criteria and are high accuracy bulls (>.80) for these EPD traits (progeny proven). This is not a complicated system, but it does require discipline. We believe it is very effective, based upon what it has accomplished for us.

I'm a living example of the economic reality of EPDs. Gardiner Angus Ranch would have gone bankrupt weaning 525 pound 10-month-old steer calves. There would have been no ranch for us to come home to if my Dad had not chosen to use EPDs. I would like to thank Roy Wallace, John Crouch and Bill Bowman for all their help over the years and for helping implement data based selection. I would particularly like to thank Henry C. Gardiner for his tenacity to never give up, and the foresight to recognize the economic reality of EPDs, and especially for implementing the Gardiner Angus Ranch breeding program. My Dad and I have many "discussions" about our sire selection, but I usually end up reminding him "I'm only implementing the program you taught me." Reproduction, Growth, and Carcass traits, can we have it all? Yes!

Value-Added Opportunity for G3 Cattle at Dreamcatcher Ranch

Gene Lowrey, Hartley Feeders will conduct a short presentation at the upcoming Dreamcatcher Sale, Sat., Oct. 28, at the ranch, San Marcos, TX. Gene will discuss the 5 Rivers Cattle Feeders Program and be available to answer questions.

GAR-Influenced Commercial Replacement Female Sale Dates

Monday, November 27, 2006:

Profit Proven Commercial Replacement Female Sale (1,000 Head Sell)

Friday, January 5, 2007:

GAR-Red Mountain Genetics Commercial Replacement Female Sale (500 Head Sell)

Plan now to join us Tuesday, October 3, 2006, for the Gardiner Angus Ranch Fall Bull Sale.



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