The GAR REPORT

Editor's Note: Once again, we take the opportunity to focus this issue of *The GAR Report* on our 27th Annual Production Sale offering. Pay particular attention to the eight-year bull summary and the donor comparison. We know of no better way to illustrate the continual improvements made from year to year in genetic predictions and the value of information. If you haven't received your catalog with the March issue of the *Angus Journal*, you can visit www.gardinerangus.com and find a searchable catalog on line.

We are reprinting an article written by our friend and colleague, Troy Marshall in the *Seedstock Digest.* The article is timely and presents important facts concerning animal identification and source verification.

Thanks to Wes Ishmael and *BEEF Magazine*, we are reprinting the first of a two-part series, Bullish Returns, containing excellent bull-buying information.

Our 27th Annual sale is headlined as "Intelligent Design". We believe our focus on the true end product—the meat case—and our customers and their customers—the consumer, has enabled Gardiner Angus Ranch to use every resource necessary to make intelligent breeding and management decisions.

Since 1885

The Brand of Quality in Quantity

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

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"Intelligent Design" offering sells April 1 at the 27th Annual Gardiner Angus Ranch Production Sale

9 AM, At The Ranch Near Ashland, KS—Join Us!

LOT 1 • GAR RIGHT DIRECTION

		Ultrasound		$Values	
BW I+1.8	WW I+46	%IMF +.59	Fat +.001	SW +29.11	SG +33.60
YW I+84	Milk I+34	RE +1.14		SF +25.30	SB +56.08

Right Direction was chosen from over 1000 bulls to earn the honor of Lot 1. We believe this is a bull that will truly help us and our customer's head in the "right direction". Why? Moderate at birth, and packing an adj. ribeye area of 16.7" (ratio of 122) with a 1156 lb. adj. scan weight (1.44 " per cwt) and 5.4 frame score. In combination with a 110 ratio for gain, 105 ratio for IMF among one of the most intense contemporary groups at GAR. This contemporary group was comprised of 22 bull calves out of 5 of the greatest cows in the history of Gardiner Angus Ranch 810, 1440, 1660, 1381, and 1901. Creating beef cattle genetics that will hit the targets of economic magnitude, while simultaneously sustaining these genetics within a given environment to replicate the process year after year—Right Direction could be one of our best prospects ever to accomplish this mission. Selling 1/2 interest and no possession. The purchaser will be our partner in the lease with Select Sires.

Our 27th Annual Production Sale is truly a product of "intelligent design" in the literal sense. We continue to apply the same critical selection pressure to every mating and the results have been remarkable (see Summary on page 3). The 2006 group of sale bulls are one step closer to reaching our stated goal in 1995, to achieve a conversion on a dry matter basis of a pound of gain from less than 4 lbs. of feed.

The bulls, as always, represent a total AI program with no clean-up bulls since 1964. This year 391 head, or 78% of the bull offering, is the result of embryo transfer. The fall-born bulls were fed for 84 days at Beefland Feedyard and Triangle H Feedyard, Garden City, KS. Their start weight was 841 lbs. and out weight was 1323 lbs. The ADG was 5.74 lbs./day with an average dry matter feed conversion of 4.43 lbs. of feed

LOT 3 • GAR FUTURE DIRECTION 6184

		Ultrasound		$Values	
BW I+2.1	WW I+45	%IMF +.76	Fat +.010	SW +26.25	SG +34.42
YW I+85	Milk I+33	RE +.91		SF +26.69	SB +57.43

This large framed Future Direction son is out of one of the most powerful donors in the history of GAR. The Quail Valley donor, GAR New Design 80, is the 12th highest $Beef cow of the breed. This grandson of GAR Precision 2536 exhibits all of the traits that have made her descendents so valuable. Top percentile ranking growth, muscle, and marbling. 6184 is the highest $Beef bull in this sale and ranks as the 17 highest non-parent $Beef bull of the Angus breed!

6964

LOT 5 • GAR RETAIL PRODUCT 9694

		Ultrasound		$Values	
BW I+3.0	WW I+46	%IMF +.55	Fat +.013	SW +22.44	SG +28.56
YW I+92	Milk I+28	RE +.84		SF +33.36	SB +54.62

My oh my, Retail Product x 1407 x Pinnacle x 6807 x 1322 x Scotch Cap 309 x Rita 5H11! Six straight generations of genetic gold. Lot 5 is a true prospect for beef improvement.

per lb. of gain. The group's cost of gain was $35.79/cwt. The bulls ran in section or larger pastures from October 10 until January 30, when they were brought in to be semen tested and clipped for the sale.

We encourage you to note the average EPDs of the 500 bulls offered in the sale:

LOT 501 • GAR 1407 NEW DESIGN 252

		Ultrasound		$Values	
BW +1.3	WW +40	%IMF +.69	Fat +.017	SW +28.99	SG +31.75
YW +82	Milk +30	RE +.89		SF +25.63	SB +52.20

252 is Integrity's sister. 252 is truly the epitome of genetic value combined with physical power and elegance. 252 is a great example of our "pounds in the right package philosophy…Top 5% calving ease 10% yearling growth, bottom 15% stature all in a package that leads the entire breed for IMF, Muscle, and the dollar value indices. I often observe people in the Beef business pursue pounds and pounds alone. The key to the business is the composition of pounds. Do you want a pound of gold or a pound of lead? The composition of 252's pounds is golden. Stunning phenotype with genetic gold.
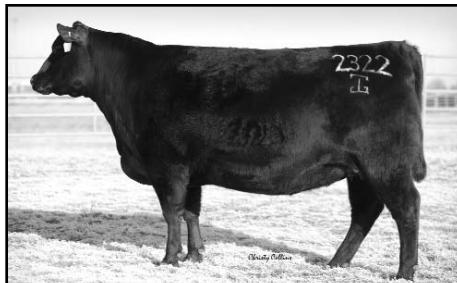
LOT 503 • GAR 6I6 RITO 2322

		Ultrasound		$Values	
BW +1.7	WW +45	%IMF +.54	Fat +.003	SW +28.29	SG +25.48
YW +90	Milk +25	RE +.18		SF +31.72	SB +50.02

2322 is flat out cool! 2322 combines several of greatest sires and dams ever used at Gardiner Angus Ranch…Rito 6i6, New Design 036, Precision, 1779, 2536, and 2104. 2322's sweet demeanor is even nicer when you realize that her bottom 5% stature is packed with a top 2% ranking for yearling growth, $W, $F, and $G is combined with her top 1% ranking for IMF, and $Beef.

LOT 504 • GAR 1407 NEW DESIGN 62

		Ultrasound		$Values	
BW +1.4	WW +40	%IMF +.83	Fat +.044	SW +20.01	SG +30.25
YW +87	Milk +32	RE +.83		SF +30.65	SB +52.63

62 has it all, pedigree, power, and breed leading genetic predictions for the traits of economic importance, impeccable progeny record. 62 is also the FIFTH ranked cow of the ENTIRE BREED for %IMF. 62's progeny record is 1 @ 106 for WW, 1 @ 104 for YW, 3 @ 120 for IMF, and 3 @ 108 for RE. This is no surprise when you look at her dam 2118's production record 2 @ 106 for WW, 2 @ 108 for YW, 63 @ 107 for IMF, and 63 @ 101 for RE (yes 63 head measured). Hmmm…looks like a trend.

See the complete sale catalog in the March issue of the *Angus Journal*

LOT 505 • GAR RETAIL PRODUCT 1712

		Ultrasound		$Values	
BW +3.2	WW +49	%IMF +.66	Fat +.017	SW +28.02	SG +28.62
YW +92	Milk +26	RE +.67		SF +32.18	SB +54.70

1712 is the highest $ Beef index donor selling in this sale, and the 20th highest $B ranking cow of the breed. Sired by Retail Product the bull that we believe may well be Precision's greatest son across the board for traits of merit. 1712's dam is not one of our more notorious donors, however with these genetics, and her record we believe she is headed for stardom herself. This is a great cow.

CED +8; BW +1.8; WW +45; YW +88; YH +.3; Sc +.06; Milk +25; CEM +9; $EN -.79; %IMF +.32; RE +.79; Fat +.01; $W +4.86; $F 30.04; $G +21.43 and $B +45.04. The average bull in the sale ranks in the top 15% of the Angus breed for direct calving ease, the bottom 35% (lighter BW) for birth weight while these same bulls rank in the top 25% of the breed for weaning weight. Their yearling weight ranks them in the top 11% of the Angus breed. This top percentile growth has been achieved in a package that is in the bottom 35% of the Angus breed for yearling hip height. The bulls have acceptable birth weights followed by explosive growth to the endpoint, which was their first off test weight, while only having an average adjusted off test frame score of 5.9. We expect these bulls to sire similar efficient traits in their offspring. The bulls rank in the top 10% for %IMF and RE EPD. When you study the $ index rankings, it is interesting to note the bull offering ranks in the top 26% for $W, the top 10% for $F, top 12% for $G, and top 5% for $B. These indexes illustrate how we have successfully bred cattle with acceptable stature, growth and end product in mind.

Each year since our first production sale in 1980, we have sold 25% of our cow herd. Some

LOT 507 • GAR T510 TRAVELER 1042

		Ultrasound		$Values	
BW +2.4	WW +53	%IMF +.46	Fat +.007	SW +24.58	SG +25.54
YW +94	Milk +32	RE +.55		SF +32.64	SB +51.10

1042 …my oh my… is out of G A R New Design 1440 the high valued Vintage/Three Trees/Hyde donor who in turn is out of G A R Ext 614. Why do cows like 1440 and 614 appreciate so much in value when they leave Gardiner Angus Ranch? There are several reasons, but foremost is the genetic predictions followed by the predictable heritabilities of cattle descending from superior proven seedstock. If you want a donor who has a chance to truly appreciate in value, but more importantly build a herd of beef cattle that will supply superior genetics for the commercial beef industry…buy 1042.

producers call this a mature cow herd dispersal. We prefer to call it a production sale. Our total A.I. program, without the use of clean-up bulls, is our assurance that you will be able to select daughters of the very best bulls in the Angus breed. We are proud of these females and believe they are some of the best cows in the entire Angus breed. If you are looking to build a superior herd of Angus females or enhance your current herd of Angus females, we invite you to consider these.

Embryo transfer has allowed us to accelerate our genetics, increase the quality and quantity of our herd, while simultaneously allowing us to sell females at a more youthful, useful age to our customers. This year we will sell 46 cows that have worked as GAR donors. We believe there is unique value within this group. Every year the GAR donors have gone on to make money for their new owners. Seeing these cows succeed across the U.S. is one of our greatest satisfactions. Our 2006 female offering will include 81cows with heifer calves. These cows and calves, as always, will sell as a three-in-one unit. The 81 pairs represent some of the best "values" in this sale. These cows are all very young and

LOT 508 • GAR 1407 NEW DESIGN 782

		Ultrasound		$Values	
BW I+1.9	WW I+52	%IMF +.54	Fat +.021	SW +24.84	SG +25.03
YW I+104	Milk I+34	RE +.59		SF +43.36	SB +53.63

782 was Cole's first show heifer…so if you would like to have a halter broke cow who just HAPPENS to rank in the top % across the board for WW, YW, IMF, $F, and $B. In fact 782 ranks in the top 50 cows of the breed for the $Beef index. Hey Cole…my first heifer ranks in the bottom percent of the breed for each and every one of these traits...our Ranch and our Breed has come a long way baby!

their calves are sired by the best Angus bulls in the breed. Next we will sell 36 bred cows followed by 155 bred registered heifers. These heifers are selected by when they were bred. We breed 10 days for GAR and any female that breeds after this time period is placed in the sale. These females represent a true opportunity to purchase some of GAR's very finest females. Every year females in these categories go on to be donors and high value females in their new herds. The last registered heifers to sell are 85 elite, open, spring born, embryo transfer heifers. These heifers truly offer some of the most genetic merit in the entire sale. We will finish the day with 100 bred commercial heifers. The commercial females will sell in groups of 7-10 head per group. All the heifers are descendants of Ralph Gardiner's commercial Angus herd he started in the early 1930s. Since 1964, they, too, have been bred total A.I. (no clean-up bulls), using the exact same sires as their 3/4 to 7/8 sisters in our registered herd. The only difference is that their ancestors were never registered.

These heifers offer an opportunity to purchase some of the best purebred commercial Angus females in the business. We invite you to join us and take home cattle which can help you succeed in the beef business.

Bullish returns

When it comes to sorting bulls, you can't expect enough from seedstock suppliers, but you can ask more of yourself.

"Everyone is searching for that perfect bull, but the perfect bull has never been born and never will be," says Mark Gardiner of Gardiner Angus Ranch at Ashland, KS.

Instead, there are more than enough of the right bulls to do the right job.

Unfortunately, too many commercial producers still end up with the wrong bull for their needs. Often times, leading seedstock suppliers say that's because some producers either put too little emphasis on bull selection, fail to set breeding goals for their programs or wait until the last minute to find bulls.

"I still see too many buyers blow into a sale and buy a bull because of the way the bull looks or because he happens to sell below the sale average," explains John Burbank, executive vice president of Seedstock Plus based at St. Catharine, MO. "There are still too many buyers getting less value for the money they spend because they buy solely on phenotype, put too much emphasis on actual performance rather than the genetic prediction, or simply buy a really good bull that's absolutely the wrong bull for the job they need him to do."

Of course, there are plenty of astute buyers, too, who continue to push the envelope of genetic possibility with their knowledge and commitment. In fact, Gardiner says, "The elite commercial producers that I refer to as professional cattlemen are extremely sophisticated. They're far more sophisticated than the average seedstock producer."

Donnell Brown of the R.A. Brown Ranch at Throckmorton, TX agrees. "I see it more all of the time, buyers spending more time studying the data in the sale catalogue than the bulls. Our bull buying customers have realized that the feed bucket is not heritable. When the fat melts off, the genetics are what you're left with for multiple generations," explains Brown. "The typical commercial cowman in the business to make a profit understands the data better than the average seedstock producer."

That's not sour grapes either. That's a shared observation based on more than eight decades of building and marketing bulls represented by these three men and the firms they represent.

"The most effective buyers we have are the ones who get with us prior to bull season, ask questions and tell us about what they need," says Burbank. These producers are planning ahead, either on their own, or with a seedstock supplier. They understand that they'll have more opportunity to find precisely what they need for a reasonable price when we have a thousand bulls at the beginning of the season, rather than waiting until the last sale when there are 100 head."

Where Are You Heading?

Of course, planning ahead suggests there is a plan to begin with. One of the most common mistakes these folks see buyers make is that of not understanding exactly what they want a particular bull to accomplish for them.

In both his university position and in his family's seedstock business, Dan Moser, associate professor of animal science and industry at Kansas State University explains, "There are those who have a very clear job description for the bulls they need, then are those who get caught up in fads."

Spun differently, some buyers become enamored with traits that are the industry buzz, when in fact those traits may have little value in their own production scheme. Consider carcass traits, for instance. If you're selling your calves at weaning, there's little incentive to pay extra for a bull that shines in carcass merit. Conversely, if you retain ownership all the way through the feedlot, there's less reason to chase weaning growth with your checkbook, compared to the producer selling calves off the cow.

"I encourage buyers to develop a job description for the bulls they need. Unless you're selling every calf, you'll be living with the genetics from that bull for the next 10 years or more," says Moser.

Knowing what a bull needs to accomplish requires knowing what the cow herd is currently capable of. Most producers have at least a gut feel for those levels, but there are also some straightforward ways to assess the actual genetic trend within a commercial program.

Moser believes it pays to look at the current EPDs of the sires of bulls you've bought the last couple of years. These updated values—available through the registering breed association—provide an ongoing barometer as to

Gardiner Angus Ranch Bull Summary • 1997-2004

Birth Year	Sale Year	Age In Days	Adj. Scan Wt.	PERCENT IMF Actual Adjust	EPD	RIBEYE Actual Adjust	EPD	RIB FAT Actual Adjust	RUMP FAT Actual Adjust	FAT EPD	BW EPD	WW EPD	YW EPD	MILK EPD	$BEEF
2004 Summary of Group Average of 841 Fall Born Bulls	2006	385	1137	4.35 4.27	+.32	14.81 14.48	+.49	.36 .33	.43 .38	+.006	+1.7	+45	+88	+25	$45.04
2003 Summary of Group Average of 357 Fall Sale Bulls	2005	393	1214	5.33 5.22	+.32	14.35 13.67	+.53	.35 .31	.40 .37	+.01	+2.0	+45	+89	+26	$44.49
2003 Summary of Group Average of 567 Fall Born Bulls	2005	390	1145	5.27 5.17	+.29	13.69 13.14	+.43	.32 .29	.38 .35	+.01					
2002 Summary of Group Average of 417 Bulls	2004	398	1178	5.51 5.39	+.26	14.2 13.6	+.33	.36 .32	.40 .36	+.007					
2001 Summary of Group Average of 503 Bulls	2003	393	1115	4.24 4.12	+.19	13.4 12.9	+.24	.34 .32	.36 .33	+.005					
2000 Summary of Group Average of 307 Bulls	2002	407	1076	4.09 3.93	+.20	13.3 12.6	+.22	.35 .32	.36 .32	+.007					
1999 Summary of Group Average of 402 Bulls	2001	419	1059	3.29 3.09	+.13	12.8 11.9	+.19	.33 .29	.32 .27	+.001					
1998 Summary of Group Average of 316 Bulls	2000	405		3.86 3.62	+.11	13.1 12.5	+.08	.31 .26	.37 .31	+.004					
1997 Summary of Group Average of 171 Bulls	1999	406		3.98 3.73	+.09	13.6 12.9	+.05	.35 .29	.40 .34	+.009					

8 key facts about animal ID

—Reprinted with permission, Troy Marshall, *Seedstock Digest*, January 13, 2006

The industry has announced the formation of the U.S. Animal Identification Organization (USAIO). This is an independent, private group that petitioned USDA to be the entity to manage the database required for the National Animal Identification System (NAIS) and to house and maintain the database repository.

The impetus behind USAIO was the National Cattlemen's Beef Association, but the new group held its own election for board members and will add new board members as other industry organizations join the consortium.

There's likely no issue with more misinformation and misunderstanding surrounding it than national ID. The following is what I consider to be the key facts about national ID:

1. It's coming. Some still debate its need, or an alternate system, but the decision to implement a national ID system was made five years ago. Any lingering doubt by government evaporated with the Sept. 11, 2001, terrorism attacks on the East Coast. The Dec. 23, 2003, discovery of BSE in Washington state nailed it down for good. The only remaining questions were who would implement and control it?

2. The industry was only given one significant choice relative to national ID—take control of the initiative, develop your own plan and create the entities to house the data; or let the government do it for you. This decision was huge as it would affect whether the data could be safeguarded, and if the program's guidelines would be practical and cost-effective to implement with the goal of 48-hour traceback. Some chose to take the initiative and lead; others chose to believe Fact No. 1 was still undecided.

3. The importance of an industry-held data repository is more than simply ensuring others can't access the data. The value of national ID to producers is in the creation of an infrastructure to allow producers to control their own data, and the industry to more effectively share information up and down the system. If industry hadn't led the effort, such capabilities would have been lost.

4. A workable system must uniquely ID individual animals. We all love our ear tags, brands, freeze brands, tattoos, etc., which are effective in proving ownership and facilitating collection of management data to varying degrees. Unfortunately, they're not unique individual animal ID, and aren't adaptable to the demands of the new system.

5. It's a mistake to think of national ID as strictly a government-mandated program. The world leader in so many areas, it's embarrassing for the U.S. to trail the world in livestock traceability. But it isn't just the government demanding it, so are our customers—be they Wal-Mart, McDonald's or the Japanese.

Nearly every value-chain today requires source and age-verification. Others demand process and genetic-verification as well. There are $30-$40 premiums for such cattle today; in six months, it may be $10-$20/head. In 12-18 months, it may be a $10-$20 discount for unidentified cattle, and that's before national ID is even implemented.

6. It's not that complicated for cow-calf producers. You simply register your operation and receive a premise ID. When your calves change ownership, they must be ID'd and that individual ID tied to their proper premise in the database.

It's more complicated for those further up the production chain but most of the major beef producing countries have already implemented the system. Thus, it obviously can and will be done.

7. Producers now have but one choice. That's to participate and shape the program, and leverage the value that can be created through the exchange of info and the creation of knowledge a national ID system makes possible. Or, you can elect to complain about it and just let it happen to you.

8. The details aren't that important. Can there be more than one animal ID database? Sure, the technology to network them is simple and USDA, for once, seems to prefer allowing the free market to work. That simply means the flexibility to improve the system and evolve it.

Will we be using radio-frequency ID tags in 10 years? If the tag and ID companies are doing their job, likely we'll have something far superior. The national ID system certainly isn't perfect but the industry has taken a leadership role to create something workable.

Sale credit offered to Guaranteed Gardiner Genetics participants

Gardiner Angus Ranch will offer participants in the Guaranteed Gardiner Genetics program a sales credit of $1.00 per head. This credit may be used in either the fall or spring Gardiner sales. For example, if a producer qualifies 300 head of cattle in the Guaranteed Gardiner Genetic program, they will receive a $300 credit.

For more information or to enroll, contact: Julie Tucker at Graphic Arts of Topeka, (785) 354-8596 x115, GGG@gathh.com.

Strong market continues for GAR-influenced females at Profit Proven Sale

A cold, blustery day didn't hamper the enthusiasm of a barn full of beef producers that came to purchase Gardiner-influenced Angus females. The Pratt Livestock Auction was once again the location for the Profit Proven Group's 4th Annual GAR-Influenced commercial Angus Replacement Female Sale.

All cattle sold as source- and age- verified through the American Angus Association's AngusSource℠ program or the newly launched Guaranteed Gardiner Genetics program, which adds GAR genetic verification to the process. The entire offering sold bred to GAR sires or sons of GAR sires. The majority of the 2005 bred female offering was AI'd and the increase in the averages of those categories reflected the strong demand.

The offering was appraised by 39 buyers from seven states.

No. Head		Average
34	Fall Pairs	$1,943.00
222	2-4-Yr.-Old Bred Cows	$1,497.00
139	5-6-Yr.-Old Bred Cows	$1,406.00
903	Bred Heifers	$1,287.00
290	Open Heifers	$819.00

1,588 hd. total $1,992,865.... avg. $1,255.00

The 2005 Profit Proven Group represents Gardiner customers from 12 large commercial ranching operations. The ranches represent diverse "gate to plate" beef operations that share common goals of producing quality beef that fit today's value-added marketing systems. One of the nation's first to incorporate source and age verification tags, the Profit Proven Group continues to explore marketing opportunities that add value to GAR-influenced genetics through the food chain. As an added feature of the 2005 sale, the Profit Proven Group offered a calf buy-back program.

The sale offering was comprised from the following ranches: Giles Ranch Co., Bucklin, KS; Merrill Ranch, Wilmore, KS; Mule Creek Ranch, Wilmore, KS; Irsik Ranch, Ingalls, KS; XIT Ranch, Plains, KS; McCloy Ranch, Morse, TX; JO Cattle Co., Springer, NM; McCarty Land & Cattle, Ashland, KS; K-Ranch, Garden City, KS; Bravo Cattle Co., Amarillo, TX; Schooler Farms, Logan, KS; Snake Creek Ranch, Ashland, KS.

whether the predicted genetic merit you purchased in the bull's sons should hold up.

"Compute genetic trend of the bulls you've purchased. Is that taking you in the direction you want to go? Is it too much or too little for your environment? Then carry that through in your selection decisions," says Weaber. "Then tie it to the level of performance you see across years when management is similar.

While EPDs don't measure actual performance, they are estimates of it. So, says Weaber, you can look at the actual performance in a given trait during an average year and see what average EPD level is associated with it. In other words, if your average weaning weight in a normal year is 550 lb. and the average weaning weight EPD of the bulls is +48, then you know in your herd and environment, using bulls from that same breed this particular EPD level supports that particular level of performance.

That's the other fact of life necessary for increasing the value received for dollars spent on genetics. "You have to collect weights. If you think you have a birth weight or weaning weight problem and you're not weighing calves, how do you know?" says Gardiner.

Catching the Right Ride

Once you know your breeding goals and have a feel for the genetic trend within your herd, the next step is identifying genetics that will move you closer to your goals and which suppliers have those genetics.

Moser points out many breed association have online databases that enable producers to search for bulls by geographic region, specific genetic parameter and on and on.

"If you find bulls in a sale catalogue that fit your criteria, put those same parameters into a breed's search engine and see if similar genetics are available other places as well," suggests

Moser. Chances are they will be.

After you've identified acceptable genetic parameters, specific genetics and supplier candidates, Weaber says breed percentile rankings can provide a time-saving sort. He explains these rankings describe where a particular EPD value for a specific trait places an animal within the breed. If you know the genetic profile of the supplier's herd you're considering—average EPDs—you get a first glimpse at where those EPDs place the herd within the breed. "Maximization is not the goal, optimization is. By getting a sense for where a breeder's herd ranks in terms of percentile you get an idea of how likely it is that you'll find a bull in his program that fits your parameters," says Weaber.

Gardiner says, "The best thing you can do is use high accuracy, progeny-proven sires through artificial insemination. If you can't do that, then use sons of those sires in natural breeding." This is the same strategy his family has used since 1980 to hyper-accelerate the genetic progress within their own herd.

It has to do with accuracy, which Moser defines as the precision of the genetic prediction. Predictions for bulls with EPDs based on only pedigree (the average of the parents' EPDs) are significantly less accurate than predictions that also include the animal's own performance compared to peers within a contemporary group. In turn, the predictive value of those values is significantly less than EPDs accompanied by a numeric accuracy, indicating the value represents pedigree, the animal's own performance and contemporary group information, as well as the performance of progeny and other ancestors.

Numeric accuracies range from 0.0 to 1.0. The closer to 1.0 the accuracy level is, the more reliable the prediction. That's why accuracy increases with a bull's age and use.

With that in mind, Weaber says, "I think it's important that you look at accuracy levels rel-

ative to possible change in order to build confidence levels." Possible change represents the amount of change statistics say are possible within one standard deviation. What it boils down to is that for each trait and each accuracy level there is a specific amount of possible change associated with it.

For illustration, the possible change associated with weaning weight EPD at an accuracy level of 0.1 in the latest genetic evaluation of the Angus breed is 10.4 lb. Essentially that means if you used a bull at that accuracy level, you would expect the average true progeny value for weaning weight from that bull's calves to be within 10.4 lb. of the published value on the bull. Statistically, you would expect that on two-thirds of the calves; the other third are expected to be outliers.

Using the example above, say it's critical none of your calves exceed the breed average for weaning weight EPD, which happens to be +38 lb. currently. Given an accuracy level of 0.1—and the associated possible change of 10.4 lb.—that would mean buying bulls with a maximum weaning weight EPD of +27.6 lb because the true progeny value of the calves of a sire with this value and accuracy level should range from +17.2 lb. to +38 lb.

For any given level of accuracy there are other ways to stack the odds in your favor, too. "The size of the contemporary group the bull is evaluated in increases accuracy of prediction," says Moser. "You know more about a bull that performs well in a large contemporary group than one that does well compared to just a few contemporaries." He considers a small contemporary group fewer than 10 head. As the number increases to 25 head, 50, 100 head, the accuracy increases.

Prediction risk is also decreased if a group of bulls with a similar genetic profile is added to the herd, rather than a single bull. Moser compares this reality to guessing cattle weights. "A few people can do a great job of estimating the weight of an individual steer. Lots more can do a great job of estimating the average weight of a pen of steers," says Moser.

For the record, while some producers are firmly convinced that using half-brothers increases prediction accuracy, Moser says, "I don't think putting groups of half-brothers together helps as much as putting together groups of bulls with similar EPD profiles." He does make an exception to the rule, saying selection accuracy for convenience traits and other non-measurable traits can be increased by using bulls that are more closely related.

The point is there's no more chance of telling which roll of the genetic dice each half-brother received than there is in guessing it for less related critters. Even full siblings are obviously different. "The other thing that can come into play with the half-brother strategy is that you limit the genetic diversity within the herd," explains Moser.

Lest you think all of this chatter about EPDs, accuracies and percentiles takes the actual animal out of the equation, Gardiner emphasizes, "High accuracy, progeny-proven bulls, don't get to that point if they have a

structure or phenotype problem. Those things are a given."

Further, Weaber points out buyers can increase accuracy by prowling suppliers' cow herds and looking at the dams of bull candidates. It's a chance to see things like udder quality and disposition that don't necessarily show up on a piece of paper. But, he cautions, "You can't do it in 20 minutes before a sale."

Likewise, knowledge loses its punch when not applied. In this case, buyers who select the right bulls but then impulsively switch gears at the sale for whatever reason are sacrificing the resources they've spent in their search.

"I advise people to sort the cattle based on only those that fit their genetic parameters, and then consider only those bulls. At a sale, that bull may be the first one in the ring or the last," says Gardiner.

By comparing similar genetics in different herds, buyers also begin getting a feel for basic differences between programs. "Buyers need to understand where a supplier's cattle fit within the breed. The last bull in one sale may have more value than the top bull in another sale," says Gardiner. "The reality is a lot of us as seedstock suppliers are using a lot of the same bulls, so what makes the genetics at one place more valuable than those at another?"

It's everything from knowledge and expertise to service and reputation.

Repeat Buyer Discount

Buyers who purchased cattle in our 2005 sales will receive **5% off their total purchases**. This policy is ongoing, and will be in effect every year. If you purchased GAR cattle in a sale previous to last year, but not in our 2005 sales, you are not eligible for the discount. However, if you purchased cattle in our 2005 sale, you will receive a 5% discount, should you decide to purchase cattle in our 2006 sale. This 5% discount is determined after all credits have been subtracted from the gross purchase price.

GAR Main Donor Summary • 2003–2004 vs. 2005–2006

Breeding better beef cattle is the result of combining the best science and technology, the most accurate data and optimum genetics. If the process is applied without fail every year, significant, documented genetic improvements will be achieved. For over 40 years, we have continually applied selection pressure for birth weight and frame size while dramatically improving weaning and yearling weights, carcass quality and yield. Compare the single year genetic predictions from our 2003-2004 donors to the 2005-2006 main donor.

Donors (45 donor per year)	BW	WW	YW	Milk	YHH	IMF	RE	$F	$G	$B
03-04	2.1	43	87	26	.4	.54	.53	$29.10	$26.50	$49.20
05-06	1.9	46	91	28	.3	.57	.64	$32.00	$27.76	$52.59
INCREASE	9%	7%	5%	8%	25%	5%	20%	10%	5%	7%

Gardiner Breeding Guarantee

We guarantee all breeding cattle sold by Gardiner Angus Ranch, both bulls and females, are fertile to the best of our knowledge. If a bull is injured at any time in the 12 months following the sale as so to make them functionally infertile, we will provide you with a satisfactory replacement (if available), or issue you a credit equal to the bull's purchase price minus the salvage value received for that bull. If a female is determined to be a non-breeder, then we would ask you to sell her and would offer you the difference of her purchase price minus the salvage value as a credit in any future GAR sale. All credit is good until it is used and does not expire. We would simply ask you to contact us before you cull your infertile animal.

This is not a life insurance policy, however. We will not replace a dead animal if it is killed or dies for any reason. We would suggest that normal care still needs to be exercised toward these animals and that particularly the yearling bulls not be allowed to get too thin.

This guarantee is in addition to the Suggested Sale Terms and Conditions of the American Angus Association, which also apply.

U.S. Premium Beef Facts...

During fiscal year 2005, all U.S. Premium Beef cattle earned $16.73 per head in premiums over the cash market. The top 25% received more than $45/hd. in premiums to cash; the top 50% earned over $33/hd. premiums while the top 75% of USPB cattle have earned more than $25/hd. over selling on the cash market.

USPB provides individual carcass data at no additional charge to members. USPB is rebating its members $1.00 of the purchase price of electronic identification tags on an as-used basis through 2006.

Free Delivery For The 27th Year

We offer free delivery to central locations in the lower 48 states for cattle purchased in the sale. We work with reputable livestock transportation companies. GAR will do everything possible to deliver your cattle to a point that is convenient for both you and the trucking company. If you would like to insure your cattle you can do so from Harding & Harding on sale day. Most of the cattle will be delivered within 45 days of the sale. If for any reason you desire an expedited delivery, please notify Garth Gardiner (620) 635-5632 to make arrangements.

A buyer may deduct $50 from the purchase price if he provides for transportation from GAR within 2 weeks after the sale.

Plan now to join us Saturday, April 1, 2006, for the Gardiner Angus Ranch 27th Annual Production Sale.

RETURN SERVICE REQUESTED