

Gardiner Angus Ranch 22nd Annual Production Sale Most Successful To Date

On April 7, 245 buyers from 29 states participated in the most successful sale in the history of Gardiner Angus Ranch.

The bull sale was a strong testament to the success of value-based systems and the Gardiner program's commitment to providing premium driven marketing opportunities to their customers.

To begin the fast paced auction, the 2 high selling bulls, Lots 2 and 3, GAR Precision 1680 sons and full brothers to Pinnacle, Paramount and Summit, sold to Maplecrest Farms & RB Cogburn, Hillsboro, OH, and Harold Oneal, Panhandle, TX, for \$11,000 each. Second high selling bull, Lot 153, a yearling ET son of B/R New Design 036 out of a Precision dam, sold to Bar L Ranch, Darrouzett, TX for \$9,500. Oak Hill Angus, Eutaw, AL, had the winning bid at \$8,000 for Lot 16, another New Design son. McDuffie Feed & Seed, Thomson, GA, selected Lot 9, a DHD Traveler 6807 son out of an EXT dam, for \$7,500. Lot 70, GAR New Design 9219, sold to Lloyd Haar, Elkhart, KS, for \$6,750. Charlie Hoffman, Eureka, SD, Charles "Chili" Sinclair, Mt. Pleasant, TX, Ronny Eaves, Atoka, OK and Oak Hill Angus all had the winning bids at \$6,500 for Lots 19, 84, 87 and 12, respectively. Jim Leachman, Leachman Cattle Co., Billings, MT, purchased Lot 140, GAR Raider 5399, a Traveler 436B of JRS son, at \$6,000.

The female portion of the sale was equally as strong, indicating the tremendous demand for high accuracy genetics found in the GAR program.

High selling female was Lot 308, GAR EXT 2104, an EXT daughter out of a Scotch Cap dam. 2104 is the dam of 2536, a noted donor in the Wehrmann Angus program and the grandam of Grid Maker, top selling bull in the

GAR Grand Plan 2000 sale. 2104 sold to Ner-Farms, Oconto, WI, for \$30,000. Second high selling female at \$15,000, was Lot 317, GAR Lucys Boy G158, by VDAR Lucys Boy out of a GAR Sleep Easy dam. G158 is a full sister to an outstanding donor in the Bittersweet Station program and sold to Maplecrest Farms & RB Cogburn. Teaming up to purchase several of the noted Precision daughters, all full sisters to Pinnacle, Paramount and Summit as well as Lots 2 and 3, was Eagle Farm and Ranch, Hays, KS; Big K Ranch, Ronald Kendall, Ransom Canyon, TX; and Leachman Cattle Co., Billings, MT. Among their purchases, the partnership paid \$11,000 for Lots 305 and 307 respectively. Maplecrest Farms & RB Cogburn added more strong purchases to their load with Lot 306, a Precision daughter, at \$9,500, Lot 312, GAR New Design 2808, for \$7,000 and Lot 324, a cow-calf pair bred to Precision with a Precision heifer at side, for \$6,500. Paws Up Angus Ranch, Greenough, MT, purchased Lot 439, the top selling bred heifer, a Finks 5522-6148 daughter bred to GAR Expectation, for \$8,500. Maplecrest Farms & RB Cogburn added to their purchases with the top selling spring ET heifer, Lot 608, GAR Plowman G270, a 3/4 sister to GAR Grid Maker at \$7,000. C.L. Cook, Social Circle, GA; Tim O'Neil, Prineville, OR; Lawlis Angus Ranch, Austin, TX; Clark Wood, Slaton, TX; and Eddie Parker, Waurika, OK all made female purchases at \$6,000 for Lots 302, 433, 436, 437 and 446 respectively.

Randall Herman, Seibert, CO, purchased the top selling pen of bred commercial heifers for a strong \$1,650 each for a pen of 7 head.

The Gardiner family again offered four lots of registered quarter horse colts. C.W. Pratt, Atkins, VA, paid \$3,500 for GAR Lady, an April yearling filly sired by J Jolly Jack.

Tony Ault, Seymour, IN, was volume female buyer taking home 22 lots. Twenty-three buyers purchased 4 or more bulls, including: Melvin Schooler, KS; Chris Scharbauer, TX; 6666 Ranch, TX; W.T. Waggoner Estate, TX; Frank Bills, KS; Sam Hands, KS; J.E. Canyon Ranch, CO; Dan Kirchenschlager, CO; Cleve Mobley, GA; Oak Hill Angus, AL; Mertz 09 Ranch, TX; Dick Roesch, KS; Don Montgomery, TX; Courson Ranch, TX; Sam Bailey, TN; Bob Boaldin, KS; and John Thatcher, CO.

ADDITIONAL NOTES OF INTEREST:

- (1) 72% of this year's buyers came from 5 states
- (2) The last 50 of 277 bulls to sell averaged \$3,750

BULLS

Total No. Hd.	Category	Average
216	18 month old bulls	\$4,209.03
61	Spring ET yearling bulls	3,700.82
277 Bulls		\$4,097.11

FEMALES

Total Lots	Category	Average
20	Open donor cows	\$6,912.50
53	Bred cows with calves at side	3,872.00
22	Spring calving pairs	2,397.73
31	Bred registered cows	2,500.00
163	Bred registered heifers	2,544.79
15	Open registered heifers	1,746.67
66	Open ET heifers	2,408.33
72	Bred commercial heifers	1,524.65
12	Open commercial heifers	1,125.00
4	Registered Quarter Horses	2,125.00

Total Head	Grossed	Averaged
810	\$2,340,345.00	\$2,889.31

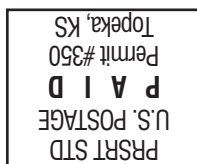
"Thanks to all who helped make our 22nd Annual Sale the most successful in the history of Gardiner Angus Ranch!"



Ashland, KS 67831
Rt. 1, Box 290



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The GAR REPORT

May 2001

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

Editor's note:

This, the fourth issue of the GAR Report, will focus on industry related topics such as using carcass EPDs versus ultrasound EPDs, the Power Score mating system and a timely and informative article written by Randall Spare, DVM, Ashland Vet Clinic emphasizing the relationship between preventive herd health and maximizing genetic potential. Also, our good friend and colleague, Dr. Bill Beal, Department of Animal and Poultry Sciences, Virginia Tech, Blacksburg, VA, has contributed an article on heifer synchronization.

For your information, we have reprinted the report from our April 7, 2001, sale.

The "questions from our customers" were received from Carey Arehart via email. Carey's email contained five very relevant questions regarding EPDs and ultrasound.

We appreciate your response to the GAR Report and will continue to answer as many questions as time and space will allow.

"Through U.S. Premium Beef in 2000, GAR customers received \$239,160 or \$59.79 more per head over cash market for their cattle.

For every 100 head of GAR influenced cattle selling through U.S. Premium Beef, our customers received an additional \$5,979!"

Since 1885



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

GARDINER ANGUS RANCH

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Questions from GAR customers

Questions from Cary Arehart - responses from Mark Gardiner

Do you use the Roy Wallace Power Score system in each and every mating, and, if so, is this preferable to family mating?

At Gardiner Angus Ranch, we do use the Roy Wallace power score mating system to breed all our cattle. We refer to this as "risk versus return" mating, but it is the Power Score system. By "risk and return" we mean if we are going to take the "risk" of using a 3 to 4 pound BW EPD bull, he had better give us the return of added growth and other traits that we can not get in any other mating. For example, let's take two high growth bulls — GAR Top Cap 1999 and GAR Traveler 4144. 4144 has a +111 YW EPD and Top Cap has a +106 YW EPD. There is no need to take the "risk" of Top Cap's 8.6 pound BW EPD when I can select for essentially the same YW growth with 4144 and do it with 7.5 pounds less birth weight. I can also make this selection of 4144 over Top Cap and create cattle that are .5 less in their yearling hip height. The bottom-line on this type of decision is that I can select for less BW and get the same growth, yet create less mature size. This is what we call "creating pounds in the correct package." That is what power score matings are all about — creating cattle that will have more versatility and function in a wider array of environments because you are creating cattle that are more valuable in "more" traits.

Family mating refers to the old purebred style of making mating based on family lines. Breeding cattle based on family lines is fine "if" you are using a power score system that will create the most economically valuable cattle possible for the commercial industry. About 15 years ago, we stopped naming our females after their cowline name because we strongly believe we are breeding "bulls to bulls" and that it's more important for our commercial bull buyers to know that this cow goes back to "Traveler" rather than the fact that she is a "Blackclass." What I mean by breeding "bulls to bulls" is that even the most prolific donor cow will never have enough progeny to have the same type of "full accuracy proof" as

the bulls that we use. Therefore, we breed high accuracy, progeny proven bulls to daughters of high accuracy, progeny proven bulls. We believe this allows us to create the most predictable cattle possible for our customers. That is why we joke sometimes that our cows are uterine links because of our "breeding bulls to bulls" philosophy.

How do you relate and understand the carcass EPDs versus the Ultrasound EPDs?

This is a good question Carey. With the advent of the Ultrasound EPDs, how do we compare them to carcass EPDs? Let's go back in time to the beginning of the carcass data-base that started in 1970. GAR has gathered carcass data on all of our steers since 1970. In fact, we have gathered data on over 6000 steers since 1970, which makes up over 10% of the entire carcass database. The American Angus Association's carcass database has gathered data on 59,900 steer and heifer progeny since 1970. The reality of this database is that it has not been good enough. We have always gathered data on cattle that were correctly placed in their contemporary groups and measured against each other for birth weight, 205-day weight, Yearling Weight, and ultimately for their carcass traits. The reality of the entire database is that this was not always the case. The Association wanted and needed the data badly, so in past years they would accept data from herds as long as they had birth dates and sire identification of the calves that were slaughtered together. This, in "some" cases, led to comparing "apples to oranges" which can and did compromise some of the data. Also, folks always assume that "actual kill data" is perfect. This is not true. First of all, the USDA grader makes a "subjective" call on a marbling score. Second, the speed at which this data must be gathered on the rail at the packing house also creates a challenge. Third, the very nature of a packing plant can create identity challenges with railouts and other possibility of losing the kill order and/or the identity of the cattle. Actual kill data is not

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perfect. So let's compare this to ultrasound. From 1998 through 2000 the American Angus Association gathered real-time images on over 99,000 head of bulls, heifers, and steers. Just the sheer power of being able to gather nearly 100,000 observations in this time period exhibits the magnitude of change we can make, once we identify the population. The ultrasound images are all processed through the Central Ultrasound Processing (CUP) lab at Ames, Iowa. These images are measured and scored by a computer program, not human subjectivity. All of the database images are gathered by CUP approved technicians. All data that enters into the database must be in the correct contemporary group or it will not be a part of the database. All images turned into CUP are processed and then turned into AHIR, and then the data is returned to the breeder. This makes certain all of the data that gets into the database is as objective as possible. There is no opportunity for breeders to "massage" the data by omitting some data and/or enhancing some data. When comparing the carcass database to the ultrasound database, the two databases have a .7 correlation when comparing high accuracy bulls. Again, the reality of the carcass database is that it has not been good enough because of all of the reasons above, and the primary reason — we simply could not measure enough cattle fast enough to get the population properly identified. The sad truth of the carcass database is that we, as a breed, at times, had poor contemporary groups, limited observations, and some breeders who cheated. When you look at the genetic trend of the Angus breed we have made no change as a breed for carcass traits the past thirty years. With the advent of the ultrasound database, as a breed, we will see more improvement for carcass

traits in the next five years than we have seen in the previous thirty. Carey, the bottom-line is that we advise you to use ultrasound EPDs and ignore carcass EPDs.

Has Select Sires left something out on GAR Exacto. He has Ultrasound EPDs but no EPDs for carcass?

Actually, Select Sires left off Exacto's interim carcass EPDs because of their shared belief with GAR that the ultrasound EPDs are more accurate. GAR and Select Sires have gathered carcass data on Exacto and this data is available now in the Angus Association Sire summary. The American Angus Association (and GAR) continues to gather carcass data for the kill database. Although, the carcass data must now meet much stricter guidelines for the data to be accepted (the primary changes are stricter contemporary groups, and numbers of cattle, both test bulls and reference sires). GAR plans on continuing to gather carcass data albeit with the hope that we will be able to ultrasound all of our steers and this data will supplant "actual kill data" and be placed in the carcass database. We believe this is important because we need to be able to test young sires in our commercial herd and our test herds. Our customers cannot afford for us to test bulls by creating the registered animal that is needed to enter the AAA CUP database. I believe that in the not too distant future this will be possible.

Of the 5 carcass data components, do you put more weight on one versus the other?

I like to look at all of the components because I find all of it interesting. However, the only two that really matter are the percent intramuscular fat (% IMF) and the percent retail product (% RP). Angus cattle in general

do not have a problem with marbling. When you look at all of the data gathered in the AAA database, the average marbling score on these cattle is Small 85. This is just 15 points off of the necessary Modest 0 marbling score that it takes for a carcass to achieve CERTIFIED ANGUS BEEF. Don't get me wrong, marbling is the key component that causes most black hidred cattle to fail to qualify for CAB, and with our database there really is no reason to use a bull that is not at least breed average for marbling. The biggest criticism of Angus cattle is that they do not yield well. When a packer or a cattle feeder talks about yield, they mean "dressing percent". The % RP is the key component to improving the "yield" of cattle. Percent (%) RP is comprised of all of the factors that affect yield: carcass weight, rib-eye area, and fat (rib-fat and kidney, pelvic, and heart fat). Angus cattle that are selected for positive % RP will not only have a very acceptable dressing percent, they will improve their yield grade by decreasing the amount of fat and increasing the amount of muscle. The beauty of the American Angus Association database is that we truly can select cattle that allow us to have it "all." There is absolutely no reason not to use this information to create better beef animals.

Is GAR Commitment as good as his numbers?

GAR Commitment is his numbers! The reality of EPDs is that once a bull achieves a .9 accuracy for various traits, this is the description of the bull's genetic ability for various traits. In 1998 Commitment was the low "power score" (low score wins) bull of the entire breed when you compared bulls in the main sire summary. Today, that is no longer the case, but Commitment is certainly a low birth weight, high growth, high maternal, moderate frame, superior % RP sire.

Value Added Performance: Genetics, health, management — all of the above.

— Randall Spare, DVM, Ashland Vet Clinic

Many cow-calf producers have embraced change, accepting the use of EPDs to enhance performance in their cowherd. The willingness to adapt to the challenges of producing cattle that are genetically superior needs to be pushed further. We must now ask ourselves, "How can I manage for an animal that will withstand the disease pressures placed upon it in the current feeding practices?"

Health must be a primary concern. It makes no difference whether a producer sells the calves at weaning or retains ownership. The Texas Ranch to Rail program documents that one treatment for respiratory disease has an associated cost of \$93/head. Using this information, we must embrace changes necessary to insure there is minimal health problems associated with the feeding period. The following practices will insure that all of the

genetic potential will be maximized in the feedyard.

Maximum health in calves starts with sound nutrition, appropriate vaccination and biosecurity programs in the cowherd. Also, common sense animal husbandry in the calves to minimize the additive effect of stress. As buyers and feeders become more knowledgeable about the factors relating to good health, they will make astute observations relating to the following management practices.

A sound nutrition program insures a high quality and quantity of colostrum is provided to newborn calves. The healthfulness of the animal is subject to colostrum intake and absorption. In our practice, we encourage producers to supplement colostrum, if the dam or the newborn has been exposed to extreme weather, or dystocia difficulties, espe-

cially in the first calf heifer.

Mineral formulation and supplementation is important so that minerals important for optimum immune function are in place when the animals are exposed to vaccinations and/or actual disease.

Vaccination and biosecurity programs reduce the risk of disease outbreaks. BVD continues to be a major cause in insidious health problems as well as large devastating health losses. Advancement in BVD diagnostics allows large groups of animals to be screened for BVD virus. If BVD is present, those carriers can be removed from the cowherd. Any new additions to a herd should be tested and quarantined for BVD. Recent observations show that a sound vaccination program in the cow herd will decrease the risk of disease in the feeding period. Much has

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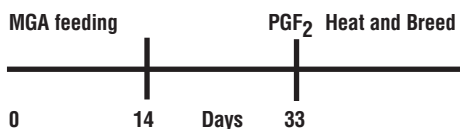
SYNCHRONIZATION OF ESTRUS IN BEEF HEIFERS

time-tested and “new” ideas

W. E. Beal

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Today there are more estrus synchronization protocols for beef heifers than any “normal” person can remember. Despite the “synchronization of the month club” mentality, one system combining MGA (melengestrol acetate) and prostaglandin F_{2α} (PGF_{2α}; Lutalyse®, Estrumate®, or Prostagmate®) has proven itself over the past decade to be the best method of synchronizing estrus in beef heifers. The system of feeding MGA for 14 days followed 17 days later by an injection of PGF_{2α} was devised by researchers at Colorado State University in the mid-1980’s. Recently, the MGA- PGF_{2α} system has been modified to 14 days of MGA feeding followed 19 days later by an injection of PGF_{2α}. Waiting 19 days after MGA to inject PGF_{2α}, as depicted below, results in a slightly “tighter” synchronization of estrus.



HOW THE SYSTEM WORKS

To understand the treatment it is best to break it down by answering two questions:

- What does MGA do and why is it fed for 14 days ?
- What does PGF_{2α} do and why is it injected 19 days after MGA feeding ends ?

MGA is a synthetic progestin that is orally active and can be fed (0.5 mg/hd/day) rather than injected. Like progesterone that is secreted by the corpus luteum (CL), MGA keeps a heifer from exhibiting heat and blocks ovulation. When MGA is removed from the feed, a heifer that was due to come in heat during the MGA feeding period is allowed to show heat and ovulate. By feeding MGA for 14 days, it “holds” all the heifers scheduled to have a normal heat until the MGA feeding stops. Other heifers not scheduled to end their cycle until the week after MGA feeding are unaffected and show heat on schedule. Hence, all cycling heifers on a 14-day MGA feeding plan should be in heat during the week after MGA feeding ends. These heats will NOT be tightly synchronized. Most heifers will be in heat 4 or 5 days after the last MGA feeding, but it will take a full week for all to respond. Likewise

this is NOT a fertile heat. Those heifers on “hold” during the MGA feeding would have lower fertility if bred at the heat immediately after MGA. However, the timing of the estrous cycles and the fertility of the heifers fed MGA for 14 days are “set up” to be optimal following a PGF_{2α} injection given 19 days after the last MGA feeding.

The feeding of MGA does another “neat” thing in some heifers that have not reached puberty and are not cycling. MGA feeding for 14 days acts as an artificial cycle. Therefore, after MGA feeding some non-cycling heifers will be induced to show their first heat. Like the cycling heifers, they too are “set up” to be synchronized by a PGF_{2α} injection given 19 days after the last MGA feeding.

Injection of PGF_{2α} regresses the CL in a cycling heifer, thereby ending her cycle and bringing her into heat. PGF_{2α} works best when heifers are injected on day 10 or later of the estrous cycle. One advantage of the MGA-PGF_{2α} system is that by waiting 19 days after the last feeding of MGA before injecting PGF_{2α}, all heifers should be on day 12 or later in the cycle when they receive the PGF_{2α} injection. The synchronization of estrus after MGA-PGF_{2α} is higher than many other treatments because of the heightened response to PGF_{2α} and the fact that heifers late in their cycle have a follicle ready to grow. Hence, the percentage of heifers in heat following MGA-PGF_{2α} treatment is usually high (>85%) and most are synchronized to show heat within a 36-hour period.

The fertility of heifers bred after detection of heat following MGA-PGF_{2α} treatment is usually high (50-65%). Some researchers have argued that the MGA treatment actually increases the fertility of heifers bred at the second heat after MGA feeding, but that fact is difficult to prove. It is safe to say, however, that the fertility following MGA-PGF_{2α} is at least as high as that following a normal, unsynchronized heat.

WHAT ARE THE RESULTS ?

Treatment with MGA-PGF_{2α} to synchronize estrus followed by AI breeding 12 hr after heat detection has been more successful than

Table 1. Estrus Synchronization and Pregnancy Rates of Beef Heifers Synchronized with MGA-PGF_{2α} and Bred After Heat Detection

Location	No. Heifers	Heifers in Heat	Heifers Pregnant
West Virginia	404	91%	63%
Missouri	320	93%	64%
Missouri	370	99%	59%
Missouri	30	87%	60%
Missouri	32	84%	72%
Kansas	253	83%	64%
Nebraska	70	88%	51%
Kansas	40	71%	54%
Kentucky	323	83%	61%
Colorado	157	83%	57%

other treatments used to synchronize and breed heifers. In an “unscientific” survey of the results of 10 trials I “dug up,” the heat response ranged from 71 to 99% (Table 1). Those trials with slightly lower heat response rates probably had a higher proportion of non-cycling heifers at the start of the study. The striking thing about all the trials is that large or small, the ranchers involved in those trials consistently got more than 50% of their heifers bred after an MGA-PGF_{2α} synchronization and AI.

SUMMARY

The system of feeding MGA for 14 days followed 19 days later by an injection of PGF_{2α} has proven to be the most consistent method for synchronization of estrus and breeding of beef heifers. The system has consistently resulted in more than 50% of the treated heifers becoming pregnant following a single AI breeding. Attempts to combine the MGA-PGF_{2α} system with timed breeding have resulted in slightly lower pregnancy rates. Therefore, to achieve the highest pregnancy rates, it is recommended to breed heifers 12 hr after heat detection.

Value Added Performance... (cont)

been written about the need for vaccination of calves while still on the cow. Stimulating the immune system prior to weaning starts the animal off toward good health later in life. As the animal is weaned, it is appropriate to vaccinate again and then possibly 2 weeks after weaning.

The benefit of weaning calves on the ranch is greater than the risks of weaning after shipping to a feedyard. In looking at possibilities of weaning at the ranch, one might consider weaning calves across the fence from the cow. This relieves the anxiety of not being able to see and nurse the cow, while the calf becomes accustomed to eating a ration. If there are health problems, you as a rancher are more equipped to handle the situation than a large feedlot. After the calves are weaned and accustomed to a ration, they can go to wheat pasture, grass or a feedyard. As I observe cattle in feedyards, calf crops that are weaned and well vaccinated before coming, have very few health problems. These are the cattle whose genetic potential is fully maximized.

“From 1998 through 2000, the American Angus Assoc. gathered real-time ultrasound images on over 99,000 head of bulls, heifers, and steers. Just the sheer power of being able to gather nearly 100,000 observations in this time period exhibits the magnitude of change we can make in carcass genetics, once we identify the population.”