



The GAR REPORT

Fall 2002

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

Editor's note:

The Fall issue of the GAR Report features information regarding a commercial cow sale of three long time Gardiner customers. Drought has prompted the sale, but the offering is outstanding. This is a sale offering backed by genetic information — in the pasture, feedlot and on the rail. If you are a GAR customer and have cattle or calves to sell, we encourage you to give us a call. Premiums are being paid for GAR genetics and we continue to explore other marketing opportunities to add value to your GAR influenced cattle.

Part II of a two-part synchronization article contributed by Dr. Bill Beal, Virginia Tech, can also be found in this issue. Dr. Beal is a cattle industry expert in the field of estrus synchronization and we appreciate his continued support of Gardiner Angus Ranch. Part I can be found on our website: www.gardinerangus.com

Since 1999, GAR influenced cattle sold through U.S. Premium Beef® have returned premiums and dividends to our customers over \$1,032,240.00!

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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GAR Customers Join Forces — 1200 Head Of Source-Verified, GAR Influence Females Sell Nov. 18, 2002, Pratt, KS

The drought is a harsh reality in Western Kansas. Three Gardiner Angus Ranch customers and commercial beef operations have joined forces to present an offering of young proven, producing GAR influenced Angus females. The females are sired by sons of GAR sires and bred back the same way.

The Krier Cattle Co. offering is a complete dispersal. The pasture leased by the Krier family for over 50 years recently sold and the entire cow herd must be liquidated.

Giles Ranch Co., Roger and Norman Giles, are long time GAR customers. The Giles Ranch is a diverse commercial cow/calf and stocker operation. The Giles offering is backed by extensive U.S. Premium Beef feedlot and carcass data.

Merrill Ranch will offer a top set of first calf and replacement heifers out of GAR bulls. The replacement heifers will average 600 lb. and

are of excellent quality. The first calf heifers are bred to sons of top GAR sires.

The entire offering of females has been raised in open range, native pastures. The ranches represent commercial beef operations that demand production efficiency from their females and feedlot efficiency from the steer mates. The females are proven producers and their calves have done well in retained ownership and value-based marketing systems such as U.S. Premium Beef.

Take advantage of this opportunity to add proven, source-verified, GAR influence females to your cowherd.

For further information, contact:
Roger Giles (620) 826-3683,
Mark Krier (620) 635-2151 or
(mobile) 635-5883,
Dee Scherich (620) 738-4431, or
Mark Gardiner (620) 635-2760.

GILES • KRIER • MERRILL



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COMMERCIAL ANGUS REPLACEMENT FEMALE SALE

Mon., Nov. 18, 2002 • 12:30 PM • Pratt Livestock, Inc. • Pratt, KS
Selling Approximately 1200 GAR Influence Commercial Angus Females

| | | |
|---------------------------|--|---|
| 295 Two yr. olds | 30 First calf heifers | 6 Foundation bred Quarter Horses |
| 225 Three yr. olds | 300 600 lb. Replacement heifers | |
| 133 Four yr. olds | 24 GAR sired herd bulls | |
| 230 Five+ yr. old | | |

All bred females will be preg. checked prior to the sale. Health and vaccination information will be available sale day.

GILES RANCH CO.

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CREDIT APPROVAL: Please contact Mike Lewis, Pratt Livestock, Inc., (620) 67205961 or (620) 672-3468 prior to the sale for credit approval.

What Kind Of An Industry Do We Want to Have?

—Troy Marshall, *Seedstock Digest*, September 23, 2002

Editor's Note: Thanks to Troy Marshall, Editor & Publisher, Seedstock Digest, for allowing the reprinting of his on-target and timely editorial and on the quality and content of his weekly e-mail newsletter. For those interested, you can receive The Seedstock Digest weekly through subscription only.

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An editorial I wrote recently on the 4 States Working Group generated a lot of comments, especially from the cattle feeding segment. They wanted to point out that the marketing cooperative concepts have all been proposed for gaining market leverage when selling cattle, and they have never contemplated using them as a means to gaining leverage in buying feeder cattle. They point out that there would be significant legal challenges if it were attempted. Plus, the public outcry would prevent a proposed cooperative from using their marketing leverage on the procurement side. With that said, they do not disagree with the basic premise that increases in market leverage historically have not been used to leverage prices higher, but rather as leverage to lower input costs.

Almost every cattle feeder *The Seedstock Digest* contacted felt that the marketing cooperative model needs serious consideration. They support looking into it, if for no other reason than it might be the best of what they consider to be three poor options. The three options/solutions they feel that are on the table regarding the cattle feeding business are: a legislative option, a marketing cooperative option, and a free-market or allow things to evolve on their own option. From their perspective all three options are less than appealing, but they are currently the only ones on the table. Nearly everyone is in agreement that the industry has been evolving and that price discovery and competitiveness has declined as value-added relationships have grown. They also agree that there is no way to arrest the trend or take us back to the way we marketed cattle 20 or even 10 years ago. Almost unanimously, they want to avoid a legislative answer to the market, confident that government regulation would hurt the long-term competitiveness of the industry, and create a whole set of new problems that would dwarf our current problems in scope.

The bottomline is that feelings and attitudes about the market have dramatically changed within the feeding segment. There is a pessimism (a significant portion of which

can be attributed to 12 brutal months of losing closeouts) that says the current marketing environment and market structure is weighted against them. At the same time the trend for the future is unmistakable with feedyards moving closer to the packer in establishing their marketing avenues. The grid and captive supply movement has been sparked by two factors: (1) The desire to capture more value, to market cattle in a just on time basis, and to benefit from a closer relationship with your primary customer; and (2) The ease of getting cattle sold, and having access to markets. With that said, the market has now evolved to the point where decisions are going to be made that will dictate the type of industry we are going to have. As is usually the case, new technologies, management protocols and marketing avenues do not create convergence in the marketplace but rather divergence, and as a result the industry is facing a battle regarding its future shape. Unfortunately, this divergence doesn't create one single industry solution, in fact the competing options may be mutually exclusive.

The industry stands at the crossroads, and the following 3 alternatives, are the most commonly proposed:

1. Legislative solution — Opponent viewpoint: Government intervention rarely results in improved efficiency and over time tends to grow exponentially. An industry that is isolated and protected from economic realities increasingly must rely on the government to maintain itself. As the reliance on the government grows, so does government interference and regulations. It is not difficult to imagine how environmental, land-use, endangered species, etc. would work there way into the process. The fear is that this path would result in an industry more highly regulated, and more heavily reliant upon the government for its financial success than the crop industry is today. **Proponent viewpoint:** To protect our way of life and balance a huge disparity in marketing leverage between segments and production efficiencies worldwide, government regulation is required. Relying on the Farm Bill to determine your profitability and or lack thereof is favorable to the uncertainty that today's future holds. **Who is in favor of the legislative approach:** A small populist movement that rejects the risk associated with free-trade and free markets for the certainty of government protection, those who both refuse to change and who adamantly oppose it, and those who are fearful that the direction of the industry will preclude the role they currently play. **Who is opposed to the legislative approach:** Everybody else, though there would be a concern that laws already on

books are not being adequately enforced.

2. Allow the free market to reign solution.

— **Opponent viewpoint:** Value discovery will continue to decline increasing the gravity of pricing issues, the industry will continue to consolidate and only the best of the least-cost producers will emerge. The most common opposition to the free market approach is the belief that if the industry continues to be reactive rather than proactive than the legislative viewpoint will eventually be forced upon the industry. The sorting out process will be lengthy, probably 10-20 years, not very profitable, and fiercely competitive. They argue that value created through brand equity and differentiating the product will be controlled by someone further down the chain. Capital and resources are disproportionately in the hands of those further up the chain, and they will disproportionately benefit from a value-based marketing system. The feeding industry will become a cost structure rather than an independent business segment. Necessity will dictate more packer ownership of cattle, or at the least, more contract relationships. Additionally, there will be more bottom up control through retained ownership. Whether the ownership of cattle will be from the packer or from the cow/calf and genetic supplier standpoint, the result will be in less ownership by the feeding industry and less opportunity.

Proponent viewpoint: The proponents would argue that the free market will allocate resources in the most efficient manner, and will ensure that the industry is viable from a competitive standpoint. Price discovery and competitiveness issues will be corrected in time as new arrangements like cost plus or two-way profit sharing become the industry standard. Most importantly a system is evolving where value discovery passes appropriate signals throughout the system allowing us to increase market share, differentiate and brand our products. The process will be difficult and will eliminate the high cost producers, but in the end, the system will be the most viable, the most sustainable, the most competitive, and will provide the most profit opportunities.

3. Create a large marketing cooperative to level the playing field between buyers and sellers.

— **Opponent viewpoint:** The magnitude of the logistics and difficulty in implementing the cooperative model, makes success highly unlikely. A cooperative effort will shift the emphasis from value discovery to price discovery and will encompass most of the industry's efforts for the next 3-5 years. It may eliminate some of the problems created through the loss of marketing leverage, but it

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Understanding the “tools” we have to use for synchronizat^on, Part II

—W.E. Beal, Department of Animal and Poultry Sciences, Virginia Tech

Editor's note:

The following is the conclusion of Dr. Bill Beal's article. Part I was printed in the June issue. For the complete article, go to our website at www.gardinerangus.com.

PROGESTINS

Isolation and synthesis of progesterone in 1929 was followed by studies that revealed estrus could be delayed and synchronized by administration of progesterone to cattle or sheep. This led to a flurry of activity in which progesterone or synthetic progestins were injected, released intravaginally or fed for a period up to and exceeding the length of the estrous cycle to synchronize estrus following the cessation of progestin administration. In essence the administration of a progestin acted as an “artificial CL.” In general, the longer the progestin was administered to cattle, the higher the rate of estrus synchronization after it was removed, but the lower the fertility of the synchronized animals.

Twenty-five years after long-term progestin feeding to control estrus was abandoned due to low fertility, several laboratories have used ultrasonography to demonstrate that progestin administration inhibited estrus and ovulation, but that a persistent follicle developed during progestin treatment. The low fertility of cows bred at the synchronized estrus immediately following long-term administration of progestin was due to the persistent follicles that ovulated.

Despite the drawbacks of using exogenous progestins to synchronize estrus, they can be a valuable tool for estrous synchronization. Progestins, especially melengestrol acetate (MGA), can be administered for 2 to 3 weeks in order to induce a non-fertile heat, then followed by treatment with prostaglandin (with or without control of follicular development) to shorten and synchronize the following estrous cycle. Conversely, if a “new” follicular wave is induced during progestin treatment, progestin administration is not followed by a non-fertile estrus.

The other benefit of progestin administration is the possible induction of estrus in some non-cycling prepubertal heifers or anestrus lactating cows. The ovaries of well-nourished postpartum, suckled beef cows are capable of ovulating within 2 weeks after calving. The suckling stimulus of the calf, however, usually inhibits the cow from initiating estrous cycles for 45 to 60 days after calving. Likewise, heifers that have reached target weights and are old enough to be approaching puberty are capable of exhibiting estrus and ovulation. Administration of a progestin mimics the pattern of progesterone released prior to spontaneous initiation of cyclicity in prepubertal heifers and anestrus cows. Therefore, estrous synchronization treatments that include progestin can be used to “induce” estrus in some noncyclic postpartum cows and prepubertal heifers. This effect is enhanced in postpartum

cows if the calves are removed from the cows for 48 hours following progestin withdrawal. Treatment of noncyclic cows or heifers with GnRH may have a similar effect, however, the success rate of inducing estrus in noncyclic animals is usually 1.5 to 2 times greater following administration of a progestin, rather than following the use of GnRH.

Fertility of noncyclic heifers or cows induced to exhibit estrus in response to progestin treatment should not be expected to be equal to that of animals exhibiting estrous cycle prior to the breeding season. Hence, if progestin treatment is used to induce estrus in noncyclic animals, a conception rate that is 15 to 30 % lower than that recorded in cyclic animals should be expected.

SYNCHRONIZATION SYSTEMS – “using the tools”

As mentioned above there is no way to cover all possible estrous synchronization methods. I have chosen five systems that are in common use and that involve pharmaceutical products that are currently approved for use in the U.S. These systems work nicely to demonstrate the use of estrous synchronization tools described above. Each system is shown diagrammatically followed by an informal description.

The use of Lutalyse, Estrumate or Prostamate is probably the simplest method for synchronizing estrus in cycling beef cows and heifers. The mechanism is simply to regress the CL and shorten the estrous cycle in cycling cows or heifers. One- or two- injection regimes can be used depending on the amount of time and labor available for heat detection. If a two-injection method is used, the injections should be spaced 14 days apart to increase the likelihood that all animals are beyond Day 10 of the estrous cycle at the time of the second injection. Prostaglandin programs usually result in synchronization of estrus in 70-85% of the cycling animals. Fertility is very good ($\geq 60\%$), therefore, pregnancy rate following heat detection and artificial insemination is usually between 40 and 55%. Because of the wide range in timing of heats, prostaglandin systems are NOT recommended to be used with timed breeding. This system should be recommended when the cows are known to be cycling, labor and out of pocket costs are to be minimized and synchronized pregnancy expectations are low to moderate.

Administering GnRH and prostaglandin products in a 1-week program is the simplest method of combining the control of follicular development and regression of the CL in order to get a “tighter” synchrony of estrus. This method, dubbed “Select Synch” by the AI company that has promoted its use, limits the number of prostaglandin injections to one and results in heats that occur almost exclusively before 72 hours after the prostaglandin injection. The

“tightness” of synchrony is better than that following prostaglandin alone, but heats are not synchronized precisely enough to allow a single timed insemination without decreasing pregnancy rates. A modified timed breeding scheme may be used successfully (breed all not detected in heat at 72 hours after prostaglandin). Two downsides to this treatment are: 1) some animals ($\approx 8\%$) exhibit heat before the prostaglandin injection (start heat checking early); and 2) this system does not work on heifers (GnRH does not consistently turn over follicle and more early heats occur). Some non-cyclic postpartum cows may be induced to show first heat (not as many as in systems with MGA). This system should be used in postpartum cows where some may be non-cycling and the desire is to limit heat detection and breeding to 3 or 4 days. Labor and drug costs are greater than for prostaglandin-alone systems, but pregnancy rates should be slightly higher, especially in mixed groups of cycling and non-cycling cows.

Ovsynch and Cosynch treatments incorporate one GnRH injection 7 days prior to prostaglandin (synchronization of follicular development) with a second GnRH injection (ovulation control) 48 hours after PGF_{2a}-induced regression of the CL. The system is expensive and labor intensive (3 to 4 time through the chute), but both methods eliminate the need for heat detection. All animals are bred at 8-18 hours after the second GnRH injection (Ovsynch) or at the same time as the second GnRH injection (Cosynch). Like Select Synch, some heats occur too early and this system does not work well on heifers. When used with groups of postpartum cows, the results (pregnancy rate) will be better if the proportion of cows cycling is high. The system will induce estrus and ovulation in some noncycling cows, however, expecting to induce estrus and have high pregnancy rates after timed breeding is ridiculous. The system should be recommended when heat detection cannot be performed, drug expense is not an issue, the proportion of cycling cows is greater than 60% and the pregnancy expectations are moderate (40 to 50%). Pregnancy rates should be expected to be 5 to 10% higher after Ovsynch than after Cosynch. This is by far the best system for synchronizing estrus in heifers. The MGA feeding (.5 mg/hd/d) for 14 days results in a non-fertile estrus 3 to 7 days after the last MGA feeding. Heifers should not be bred after this heat, but a PGF_{2a} injection administered 19 days after the last MGA feeding catches all the heifer on Day 12 or later in the estrous cycle and results in the maximum estrus response ($\geq 85\%$). Fertility following MGA-PGF_{2a} is as high (or higher) than following a natural estrus, therefore, pregnancy is consistently achieved in greater than 50% of heifers treated.

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Understanding the “tools” we have to use for synchronization, Part II

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The MGA-PGF_{2a} system will induce estrus in some noncycling heifers and fertility is higher than might be expected because breeding occurs at the second estrus (infertile heat = first estrus). This system should be used on replacement heifers that have surpassed reasonable weight and age thresholds governing puberty. The system is inexpensive and involves a minimum of handling, however, it is absolutely critical that the heifers consistently consume the MGA during the 2-week feeding period. The distribution of heats following the prostaglandin injection is too wide to expect timed breeding to work without a reduction in pregnancy rate.

The MGA-PGF_{2a} system described above for heifers will work for postpartum cows, however, the length of time necessary to begin treatment prior to the start of the breeding season (33

days) means that some cows will not have calved or be too short postpartum (≤ 21 days) to be included. For cows that are more than 3 weeks postpartum, the MGA feeding can actually be combined with the Select Synch system to provide more precise synchrony than the MGA-PGF_{2a} system, as well as offer the chance for modified timed breeding of the cow herd. The MGA feeding incorporated in the MGA + Select system for cows maximizes the chance of “jump starting” (inducing estrus) in noncycling cows. By “pre-programming” the stage of the estrous cycle when cycling cows begin Select Synch, the MGA also reduces the number of “early” heats (before prostaglandin). The GnRH injection 7 days prior to the prostaglandin synchronizes the development of an ovulatory follicle and “tightens” the estrus response. This is the

system of choice for postpartum cows. The system requires lots of pre-planning and involves at least 3 times through the chute, as well as heat detection. Therefore it is labor and management intensive. However, the MGA + Select system is the one most likely to result in a greater than 50% pregnancy rate for postpartum cows.

CONCLUSION

There is no way to know all the possible estrous synchronization systems that are available. Unfortunately, there is no one synchronization system that “fits” all situations. Therefore, rather than be confused by every new synchronization treatment that hits the popular press, I suggest you become familiar with the “tools” that are used to make up the different systems. In this way you can “decode” the new systems that are presented and determine if the costs (\$, labor, management, semen) are likely to be worth the benefits (convenience, pregnancy rate) in any breeding situation.

What Kind Of An Industry Do We Want To Have?

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ignores the value created through closer relationships and a more integrated system. A cooperative system will in essence institutionalize the commodity system while not addressing its inherent problems, leaving the industry less responsive, less able to improve quality, and value from the consumer standpoint. The result will be that we will continue to fight over narrow margins while our competitors improve their position in the marketplace. **Proponent viewpoint:** If we are not proactive we will have legislative reforms forced upon us. It is time to be proactive. Market leverage is one of the top concerns in the marketplace and a cooperative concept will help to balance the situation. If the cooperative is structured correctly, and garners sufficient size and scope, then it will not only

improve price discovery, but also can play a role in improving value discovery. If we don't move in this direction the feeding industry will cease to remain a viable economic segment and increasingly begin to look like the pork and poultry industries.

In summary, the feeding industry feels it is being shoved into a box where they lose the chance for controlling their own destiny. They accept that capital and power is disproportionately held by the segments above them, and that if they wish to control their own destiny, must act. Ironically, the decision about which direction to head is effected by as many non-economic factors as it is economic considerations. The following questions do not have easy answers: Is earning stability, or earning potential more valuable? Is value discov-

ery or price discovery the overriding concern? Is an integrated model, at least from a contractual standpoint, or a commodity pricing system most advantageous? Is market leverage the overriding concern of the marketplace or is a year of negative closeouts the primary reason that we feel the system is not working? Will competition or relationships return more value in the long run? Is price transparency or value transparency more likely to position your operation for success? Is no action better than a wrong action? Do we have to pick from the lesser of evils? Does any alternative preserve independence? Is independence a good thing? All of these questions will have differing perspectives depending on your size, your goals, your niche, and your particular expertise, but ultimately the question is **what type of industry do we want to have?**



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