PHARO CATTLE COMPANY

May/June 2005
NEWSLETTER

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Buy your bulls from someone who raises cattle the way you ought to.

EPDs… the Good, the Bad and the Ugly

It has been a long time since I have discussed EPDs in a newsletter. Why? Because I believe EPDs are responsible for many of the problems we have in most of today's beef cow herds. EPDs can be an excellent tool, but only if they are properly used. Unfortunately, they are quite often misused and misrepresented.

EPD is an acronym for Expected Progeny Differences and that is exactly what they do. They predict the difference between the average progeny of one individual animal and the average progeny of other animals. Do EPDs work? There is absolutely no doubt that they work, but they can quickly lead to disastrous consequences if they are improperly used.

The most common EPDs are measured in pounds. For example, a bull with a birth weight EPD of –2 should sire calves that are five pounds lighter than a bull with a +3 birth weight EPD. A bull with a +40 weaning weight EPD should sire calves that are 20 pounds heavier at weaning than a bull with a +20 weaning weight EPD. Keep in mind, though, that this increase in weaning weight will only occur when the calf's environment can support the increase. You cannot generate extra pounds without an energy input.

EPDs cannot tell you how big a calf will be at birth or how big it will be when weaned. In other words, a "zero" EPD does not equal a 70-pound birth weight or a 500-pound weaning weight. It really doesn't mean anything. In fact, a "zero" EPD isn't even the breed average. It is just a base point. Actual birth weight and actual performance will be greatly affected by the environment the calf is raised in. Since different breeds use different bases, it is nearly impossible to compare EPDs between two different breeds.

How reliable and accurate are EPDs? As I said, they can be an excellent tool to compare the genetic potential of individual animals. The accuracy varies with the amount of information that is provided to make the calculations. On bulls that have sired hundreds of calves the accuracy can be very high. On yearling bulls the accuracy will be relatively low.

A very common misconception is that accuracy values tell us how variable a bull's offspring will be. They don't. Accuracies simply tell us whether the estimate is based on good hard data or whether it is little more than a guess. Since EPDs are based on averages, it is quite possible to have a bull with a high accuracy and absolutely no consistency. For example, if we breed a bull with a -6 birth weight EPD to a cow with a +4 birth weight EPD, we may produce a bull calf with an impressive –2 birth weight EPD. However, he will probably sire calves with birth weights that are all over the board.

Where do the numbers come from? All EPDs are generated in registered cowherds, most of which operate in pampered, artificial environments. It would be wrong to assume you can get the same results in a real-world environment. Seedstock producers, for the most part, play by different rules than commercial ranchers. They tend to tolerate things that commercial ranchers would never tolerate. To make matters worse, a few seedstock producers know how to manipulate the data they send to the breed associations.

Bigger is not always better. For the past 30 years, the mainstream beef industry has been focused on breeding cattle for bigger and bigger numbers instead of for greater function and profitability. Most ranchers have been led to believe that the highest EPDs are the best EPDs. That is wrong! I firmly believe the mainstream beef industry went beyond the optimum level for most EPDs many years ago. Once you go past the optimum level your net profits will begin to decrease. Your environment can only support so much growth without huge amounts of supplemental feeding.

Well, that's the good, the bad and the ugly. Look for more EPD discussions inside.

"It wasn't so hard. You got to where you could sleep on a horse without any trouble."

— Charles Goodnight (1836-1929) —

The Email Advantage...

Do you have an email address? If so, please, please, please send it to us. Yes, we are still begging for your email address. Those who receive our weekly emails receive at least 10 times more news, ideas and information than is possible to share in our bimonthly newsletters.

If you cannot operate your email (I think that's a silly excuse), then ask your wife to send us your email address. I guarantee that we will send you enough good information every week that you will learn how to operate your email program — without anyone's help. It really isn't that difficult.

Don't worry... we will NOT stop mailing you a hard copy of our newsletter.

If you don't have email, that's okay — but you might want to look into it. It is a great way to communicate with friends and loved ones. It is also extremely cost effective. There really is an Email Advantage.

THE

PHARO CATTLE COMPANY

NEWSLETTER

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Our Mission: To help ranchers put more fun and profit into their business.

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Private Treaty Bulls…

Pharo Cattle Company has had two spring bull sales, as well as an internet bull sale — but we still have a good selection of private treaty bulls to sell. Call or email for more information on these bulls. They will be sold on a first-come basis — and they never seem to last long.

Rancher's Dozen. You have probably heard of a Baker's Dozen where you can purchase 13 donuts for the price of 12. For the first time ever, we are offering a Rancher's Dozen. If you purchase 12 private treaty bulls, we will give you a 13th bull (of equal value) FREE. I guarantee you won't find a deal like this anywhere else.

Whether you need one bull or 13 bulls, we can help you out. Our bulls were produced by efficient, easy-keeping, moderate-size cows that have never been pampered. We believe we must be tougher on our cows than our customers are on theirs. Our bulls have NOT been overfed. Most will gain weight while breeding cows their first breeding season.

Milk Is NOT A Maternal Trait

Many bulls are touted and promoted as "maternal" bulls in sale catalogs and semen directories, but what do they mean when they use this term? Without exception, they are referring to the bull's genetic potential to produce daughters with high milk production. For many years, I've been the lone voice in the wilderness saying, "Milk is NOT a maternal trait!"

So, what is milk if it is not a maternal trait? It is a growth trait. The only reason we would ever want to select for more milk in a range beef cowherd is to produce bigger calves. Milk is a growth trait, and it may be the most inefficient growth trait that there is. Research has shown that we can separate a cow-calf pair and get the exact same gains with 15 to 20 percent less feed than when we leave the pair together. Don't get me wrong, I believe milk production is important but we only need enough to get the calf to the point that he can utilize forages on his own.

What is a maternal trait? If milk is not a maternal trait, what is? Several things come to mind when I think of maternal traits. They include, but are not limited to, calving ease, mothering ability, fleshing ability and udder conformation. Ultimately, though, fertility is the only genuine maternal trait.

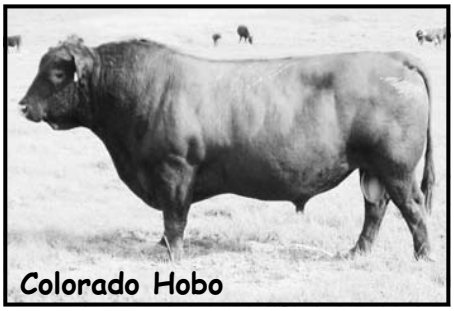
Ironically, high milk production is very antagonistic toward fertility. Heavy milking cows tend to be hard-keeping cows that are difficult to get bred back. Heavy milking cows require more feed for maintenance — even when they're not lactating. Reproduction can only take place after maintenance requirements have been met. The dairy industry has created a Holstein cow that can no longer calve every twelve months, even though she is being fed massive amounts of high-energy feeds. She does good to calve every fourteen months. Maybe we should call milk the "anti-maternal" trait.

Pharo Cattle Company breeds cattle for maternal traits, but milk has never been on the list of things we select for. We select for thick, easy-fleshing, moderate-sized cattle that can efficiently produce and reproduce with minimum inputs. We let the environment sort out the good ones, while we show absolutely no sympathy for open or dry cows. High-milking cows are usually the first ones to fall out of our program.

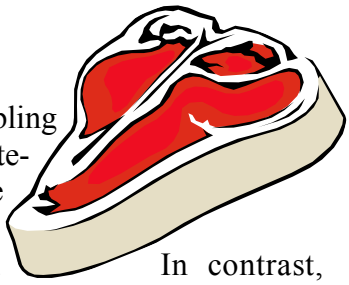
On the other hand, I want to caution you against becoming obsessed with the idea of only selecting and using bulls with very low milk EPDs. The reason I mention this is because I know some of you are already doing this.

What do milk EPDs really measure? Do they measure milk? No, they measure pounds of growth. So, what is the difference between a bull with a +10 milk EPD and a bull with a +20 milk EPD? If we were measuring milk, this difference might be quite substantial, but we are not measuring milk. The expected difference between these two bulls won't show up for two and a half years, when their daughters are weaning their first set of calves. The resulting 10-pound "milk" difference at 205 days of age corresponds to an extremely small gain difference of 5/100 of a pound per day. That's probably not something you should lose much sleep over.

In summary, I don't believe high milk production is as great as most of the so-called "experts" have been telling us. In fact, I think it has created huge economic problems for most commercial cow-calf producers. I have also concluded that milk EPDs often do a very poor job of predicting potential milk production.



What About Those Carcass EPDs?



If you go back to the inception of Pharo Cattle Company, you will discover that our two basic philosophies have never changed. They have always been: **1)** ***Our cows must fit their environment***, and **2)** ***Our cows must produce a desirable end product***. In other words, we need much more than a cow that resembles a Longhorn or an antelope. The genetics we produce and market must make the commercial rancher profitable, as well as provide a satisfying eating experience for the end consumer.

One of our many secondary philosophies says, "***If it ain't broke, don't fix it***." We have never found that our type of cattle were producing an inferior carcass or eating experience. They finish well on corn and on grass. Compared to the industry averages, they do a great job of marbling — but you would expect that from our type of cattle. Therefore, we have never concerned ourselves much with all the whoopla over ultrasounding and carcass EPDs.

A recent study conducted by Iowa State University seems to support what we've known all along. John Lawrence, an ISU economist, says, "The most profitable steers in the feedlot in a grid marketing situation came from lower maintenance, moderate-sized, lower cost cows. It is not a conflict. The ones that are cheaper to feed at home produce more money on the other end. The opposite is also true. The higher cost cows tend to produce the least profitable steers in the feedlot."

In the Virginia Angus Magazine, Bobby Grove wrote, "Functional traits have suffered as growth and carcass traits have improved. These functional traits include, but are not limited to, structural soundness, fertility, fleshing ability, calf survivability, longevity, udder quality and disposition. Strength in these traits made the Angus breed the maternal breed of choice in the beef industry. Unfortunately, the indiscriminate use of EPDs has led to the unintended consequences of losing functional traits."

Where do we start our discussion of carcass EPDs? Let's start with marbling. I believe that much valuable information can be obtained through progeny testing of steers in the feedlot. However, I think it is ridiculous and extremely misleading to ultrasound yearling bulls for marbling. Typically, yearling bulls that show the highest level of marbling are the small-scrotal, late-maturing bulls that have little interest in finding female companionship. In contrast, the early-maturing bulls, with high levels of testosterone, are burning up their intramuscular fat. Hence, when we select for marbling in yearling bulls, we may also be selecting for late maturity and infertility.

Dr. Mike Dikeman, of Kansas State University, says, "It is confusing and frustrating for both ultrasound EPDs and carcass EPDs to be published on Angus sires, because there are some definite contradictions on a significant number of animals between the two EPDs. Our theory is that when bulls reach puberty early and have large testicles, they will have low amounts of marbling at that time."

Bobby Grove, an Angus producer in Virginia, says, "Selection for increased marbling has stimulated a mindless race to create Wagyu-like Angus with lower fertility, less muscle, less fleshing ability, as well as poorer environmental adaptability." Bobby continues by saying, "One real-world example concerns two neighboring Angus breeders, one who has bred for four generations for higher marbling, and one who has maintained traditional selection for balanced traits. Wintering costs are $200/cow higher for the high-marbling neighbor, while the balanced-trait neighbor's cows stay in better flesh, have a higher pregnancy rate and even wean heavier calves."

What about ribeye area? Many believe we need to increase ribeye area in our maternal cattle. They may be right, but let's not go over-board. All things in moderation. There appears to be an antagonism between extreme muscle and fertility. In other words, when we put Limousin type muscling in Angus cattle, we will probably have Limousin type fertility. In a maternal cowherd, absolutely nothing is as important as fertility. Another consideration is the fact that today's typical beef consumer does not want a ribeye steak as big as his or her dinner plate.

Concerning ribeye area, Bobby Grove says, "EPDs show that ribeye area is increasing in the Angus breed. However, when slaughter data is analyzed, ribeye area is actually being lost

Carcass EPDs Continued...

in the Angus breed. How can the EPD for ribeye area be increasing while actual ribeye area in relation to carcass weight is decreasing? It is because carcass EPDs are based on an age constant endpoint. In the real world, yield grade scores are influenced by ribeye area per unit of carcass weight. In relative terms, the age constant endpoint has resulted in ribeye area increasing at a slower rate than carcass weight. The bottom line is that ribeye area per unit of carcass weight is continually decreasing, which means real muscle is being lost."

Is fat thickness good or bad? It depends on who you are asking. Those who use carcass EPDs as their primary selection tool will quickly tell you that they want low EPD numbers for fat thickness. They think fat is bad. However, if you would ask me, I would quickly tell you that fat is good. I equate fat thickness with fleshing ability, and I place an extremely high value on fleshing ability. So, who is right?

As far as I am concerned, fat thickness at slaughter is a management problem. The feedlot manager needs to harvest the cattle before the back fat gets too thick. It's as simple as that. If you have the right type of cattle, a high percentage of them will grade choice before they lay on too much back fat. Most feedlots get paid for corn and days. Therefore, they are going to encourage ranchers to produce cattle that require a lot of corn and a lot of days before they are ready for slaughter. Don't let the wrong people make your breeding decisions for you.

Small-frame, early-maturing cattle tend to deposit fat much quicker than large-framed, late-maturing cattle. Therefore, if you select for low fat thickness EPDs, you will inadvertently be selecting for big-framed, hard-keeping, late-maturing, high-maintenance cattle. Is that the kind of cattle you want?

This is the "Reader's Digest" version of what I think of carcass EPDs, but I hope you understand why we have never concerned ourselves with all the whoopla over ultrasounding and carcass EPDs. There is little argument about the detrimental effects growth and milk EPDs have had on our cow-herds, but I'm afraid the current carcass EPD fad may cause even more damage.

Spring Bull Sale Results

We sold 400 bulls in our two spring bull sales for an average price of $3420 per bull, with a range of $1250 to $8000. These bulls ended up going to many different states from as far away as Oregon and Washington in the north-west to South Carolina in the southeast. Breed averages are posted below.

- **243 Angus …… $3750**
- **116 Red Angus ….. 3080**
- **22 Composites ….. 2340**
- **19 Hereford …….. 2400**

400 Total ….. $3420

Over 120 of these bulls sold for $2500 or less. That's over 30 percent. We're doing everything we can to keep our prices in the commercial rancher's price range.

We offered another 48 bulls in our first time ever Internet Bull Sale. This was so well accepted that we are planning to make it an annual event. If you want to be informed about our internet bull and heifer auctions, you will need to send us your email address.

Fall Bull and Heifer Sale. Don't forget about our Fall Bull and Heifer Sale. This will take place in early November. We will be selling around 200 Forage-Tested Bulls along with many PCC-Influenced Heifers. If you have heifers that were sired by PCC bulls and/or bred to PCC bulls that you would like to consign to this sale, please let us know by August 15th.

"Thanks for all the help with the sight-unseen purchase of the three bulls. I like them all. I can see a night and day difference between the calves sired by your bulls and those sired by other bulls — so I figured I'd just as well buy more of your bulls."

Mick Martin — Illinois

EPDs vs. ERTs...

We know that EPD stands for Expected Progeny Differences, but what does ERT stand for? ERT is an acronym for Economically Relevant Traits. These are traits that directly affect ranch profit. Many of the traits we now measure and have EPDs for do not have a direct effect on profits.

For example, we don't measure birth weights because we get paid more or less money due to a calf's weight at birth. We measure birth weights because it helps us to predict the probability of a difficult birth. Calving ease is the Economic Relevant Trait (ERT) we are really trying to measure. In recent years, several breed associations have created an EPD for calving ease. Eventually this EPD will replace the birth weight EPD.

What about the EPD most breeds have for scrotal circumference? Unless you are in the Rocky Mountain Oyster business, scrotal size has absolutely no economic value. The ERT that we are really concerned about is fertility. Therefore, we need ways to directly measure the genetic potential individual animals have to improve herd fertility. The Red Angus Association has already created EPDs of this type.

Unfortunately, the true value of these ERTs is only as good as the data used to create them. Take, for example, the relatively new stayability EPD that the Red Angus breed is promoting. This EPD is supposed to predict the probability that a cow will still be in the herd when she is six years old. That sounds like an EPD that measures fertility and longevity, as well as everything that contributes to fertility and longevity. However, if a cow comes up open or does not wean a calf as a 3, 4 and/or 5 year old, her stayability EPD will not be negatively affected. The Red Angus Association wrongly assumes that all seedstock producers will get rid of cows that fail to breed and/or wean a calf every year. They should know better.

There are two new ERTs that everyone at Pharo Cattle Company is extremely excited about. They predict the amount of energy required by mature cows to maintain body weight. This is something that has a tremendous impact on overall ranch profits. The Red Angus Association has a maintenance energy (ME) EPD. The lower the number the better. The Angus Association has a similar EPD called the cow energy value ($EN) EPD. The higher the number the better.

Nearly all of the bulls promoted by the big-name AI companies and used by the mainstream seedstock producers literally stink in the area of cow energy requirements. They have way too much milk, growth and size to fit a commercial ranch environment. In contrast, nearly all of the genetics used by Pharo Cattle Company excel in this area.

Because they are directly related to profit, I believe Economically Relevant Traits (ERTs) will eventually replace many of the traditional EPDs. However, Pharo Cattle Company will be slow to promote any EPD or ERT because of all the inherent flaws built into the system. Putting EPDs in the hands of breed associations and purebred breeders is like putting your ranch in the hands of the government and politicians.

Curve-Bending Bulls…

What about those amazing bulls with curve-bending EPDs? They are supposed to do it all — low-birth, high-growth, high-milk, easy-fleshing, moderate-size and much, much more. Folks, if it sounds too good to be true, it probably is too good to be true. It's impossible to get high levels of antagonistic traits in the same genetic package.

For the past ten years most seedstock producers and AI companies have been falling over themselves trying to get the latest in curve-bending, wide-spread genetics. I've seen producers flush yearling heifers with the "biggest and best" EPD numbers to yearling bulls with the "biggest and best" EPD numbers. They are breeding numbers — not cattle.

Personal experience has taught me that curve-bending bulls will always disappoint you in one area or another. They simply cannot do all the things they are supposed to do. Curve-bending bulls will also be inconsistent and unpredictable.

$1,000 Winners…

The winners of the two $1,000 drawings we held at our two spring bull sales are:

- ♦ Jimmy Collins -- Cusseta, Alabama
- ♦ Dan Welch -- Princeton, Kansas

Three Different Philosophies…

You have probably heard or read the parable Jesus told about the "Good Samaritan" in the 10th chapter of Luke. I am going to provide a quick cowboy paraphrase of this parable followed by some observations.

As a man was walking down a road, he was attacked by bandits. They took everything the man had, beat him and left him lying half dead in the ditch. Soon a minister came along but when he saw the man lying in the ditch, he crossed to the other side of the road. Later another man of religious status came along and noticed the wounded man in the ditch. Because he was in a hurry, he too passed by without even a thought of helping the man in need.

Eventually a foreigner, who for the most part was despised by everyone, came along the same road. When he saw the injured man in the ditch he had compassion and stopped to see if he could be of help. The foreigner cleaned and bandaged the man's wounds. He gave the man what little food and water he had. Then he put the injured man on his own donkey and walked along beside him until he came to a small town where the man could rest and recuperate.

After spending the night looking after the injured man, the foreigner paid for a motel room and gave the motel manager a couple of twenty dollar bills to cover other expenses that the injured man might incur. He reassured the manager that he would make up any difference on his return trip.

There are three very different philosophies represented in this parable. The same three are also very common in real life. They are:

1. What's yours is mine and I'll take it, represented by the bandits.
2. What's mine is mine and I'll keep it, represented by the two religious men.
3. What's mine is yours and I'll share it, represented by the foreigner.

A.I. — Help or Hindrance?

Many progressive cow/calf producers have been using artificial insemination (A.I.) in an attempt to improve the profitability and the genetic base of their cowherd. Unfortunately, A.I. has taken most commercial ranchers in the opposite direction. The more they A.I., the less profitable and less efficient their cowherd becomes. Does this mean that A.I. has no value and won't work?

Absolutely not, but A.I. will never be any better than the bulls you are using. There are bulls that will help you meet your breeding objectives and there are bulls that will actually hinder your breeding program. It's up to you to select the right bulls. A word of caution, though. Don't be misled by pretty, four-color pictures and big numbers.

Although most of the bulls available through the major A.I. companies take pretty side-view pictures and have impressive EPDs, they don't have what the commercial rancher needs. For the most part, they are tall, slab-sided bulls with too much birth weight, too much growth, too much milk, and not near enough guts, muscle and fleshing ability. They were produced by high-maintenance, pampered cows in a high-input, artificial environment. A bull with a frame score under 6 is a rarity. So, unless you want to produce high-maintenance, hard-keeping cows that weigh 1400 to 1800 pounds, these bulls simply won't work.

We suggest you use bulls whose mothers and sisters and daughters are proving themselves in real-world ranching environments. The bulls you use should come from cowherds that are treated as tough as you treat your own. How else are they going to be able to move your cowherd in the right direction?

An A.I. program can be a very cost-effective tool to improve the profitability and the genetic base of your cowherd. It will allow you to use some of the best genetics available, without actually owning the bulls. However, if you don't select and use the right bulls, it will be a total waste of time and money.

Pharo Cattle Company has over 40 A.I. sires to choose from that are competitively priced at $6 to $18 per straw. Call or email to request our ***2005 Semen Directory***.

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Cowboy Logic: *"Only the foolish and the dead never change their opinions."*

What Are The Best EPDs?

I'll bet this is a question you've been just aching to ask me. Well, I'm not going to give you any specific answers. However, I will give you a very good, time-proven method to answer this question for yourself. It is so obvious that most producers miss it completely.

The answer to this question can be found in a set of old cows that reside in your area. Look for cows that are well adapted and do not require much in the way of feed and care. Look for cows that are required to breed back and wean a calf every year. Look for cows that have done all of this for at least ten years. Yes, I know groups of cows like the one I just described are getting harder and harder to find. That, my friend, is a symptom of the "bigger is better" EPD problem we're dealing with.

When you find those good, old grandma cows, check their pedigrees and see what kind of EPDs they have. I'll guarantee their EPDs won't be very big or impressive. Your environment can only support so much milk, growth and size. Cows with too much milk, growth and size will not last long in a real-world, unpampered environment. Those old cows may not have very big or impressive EPDs, but they have exactly what works best in your environment.

We had a difficult time putting our breeding program on the right track until we finally realized the solutions to our problems could not be found in the latest four-color AI catalog. When we started studying our old cows, we quickly found out what size, what type, and what EPD combination was working best for us. Breeding the right kind of cattle is extremely easy and simple once you know what to select for.

EPDs can be an excellent tool to compare the genetic potential of individual animals. We use EPDs, but we stay within specific boundaries. We have an upper limit, as well as a lower limit for the most common EPDs. It takes discipline to stay on track and not be persuaded to use those flashy bulls with extreme, curve-bending EPDs that everyone else is chasing after.