

Genetic Selection Q&A

Young Angus leaders share strategies on genetic selection.

by Kasey Brown, associate editor

With this month's focus on genetic selection, we wanted to quiz some young leaders in the Angus business about the selection protocol they use in choosing seedstock. We turned to alumni of the Beef Leaders Institute (BLI) to find three young Angus breeders: Brad Arntzen, Hilger, Mont.; Mercedes Danekas-Lohse, Wilton, Calif.; and Chris Throne, Lexington, Ga. Representing a variety of environments, customer bases and herd emphases, here's what our young leaders had to say about their genetic-selection regimen.

Brad Arntzen

Operation: Arntzen Angus Ranch
Location: Hilger, Mont.
Year attended BLI: 2008

Tell me about your operation.

Our operation is family-owned and started 59 years ago with Angus cattle. My grandfather started with a few Angus heifers, and my dad and uncle were a big part of the operation since they were young. Now, it's my dad, uncle, cousin and my two brothers and me. We work together well, and it's nice to work with family.

This year we are having our 39th annual production sale, where we sell about 200

bulls and a handful of heifers — about 20 registered heifers and 30 commercial heifers.

Overall, we manage 650 registered cows, and 100 commercial cows as recips. We also grow dryland crops — 4,000 acres of spring and winter wheat, and alfalfa grass.



► Brad Arntzen, Arntzen Angus Ranch, Hilger, Mont., speaks with customers before the Arntzen's annual production sale.

What are your criteria for choosing breeding stock and what tools do you use?

When selecting herd bulls, we look at a few characteristics. Ultimately, we use a mix of pedigree and maternal expected progeny differences (EPDs). Bulls need to have good daughters. We look at calving ease direct (CED) and birth weight (BW) EPDs to work as heifer bulls, but with enough growth to use on cows. We do look very hard at the weaning weight (WW) EPD. It's one of the most important EPDs for our selection.

We also study hard to be educated on cow families both in our herd and in outside herds, so when we see a cow line show up in a pedigree, we have a feel for what type of offspring she will produce.

Almost all of our replacement heifers are raised at home. We evaluate them a month after weaning and pick out the bottom-enders based on growth, and femininity is important to us. The ones we keep will be bred early. We've found that those who breed later never seem to catch up, and they get culled.

Culling takes a lot of discipline. How much do you pamper them? There are a lot of factors that go into breeding, and not being bred might not be the cow's fault. We

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calve in the spring and try not to drag out the calving season, so we have to keep a tight leash.

We spend a lot of time looking at pedigrees, and we get the performance pedigrees from the American Angus Association. By analyzing the pedigrees, we know who is back there, and we can check EPDs online. We check on red flags from our experience, and recordkeeping is absolutely important.

On that, the Association has given us so many tools that are so helpful in trying to decide what you can predict these cows are going to do. Using EPDs for different trait selection has been very helpful, and so have the performance pedigrees. You can order them and get them in about an hour, sometimes less. Those are really nice because you get a lot about that animal before you purchase it, and it creates a lot more credibility.

The weaning value index (\$W) makes the most sense for our customers because a lot of them sell their steers in the fall to be fed. This index gives them one simple number to look at. We've been trying to educate our customers on weaning weights, yearling weights, birth weight and calving ease EPDs.

We try to balance growth and calving ease. We don't want a yearling weight that's too high because we need a moderate frame to maintain cows out here. I also don't want birth weight of more than 100. With our genetic pool, I've seen just as much growth in a 90-pound birth weight as 100.

The one thing that trumps everything, whether in bull selection or female selection, is they have to look the part. We do like EPDs to assist in selection, but if a bull doesn't look the way we want him to look for what we need, then you can have all the numbers in the world and he's just not going to work.

Disposition is our No. 1 criteria. We absolutely will not use a wild bull. Structure is also right up there.

What are your customers looking for and how do you meet those needs?

Our customers need cattle that will work for them without worrying about structure or disposition. These cattle have to fit the environment. For a lot of our customers out here in Montana, their cattle have to travel a long way in wide-open pastures. Those cattle need to have good feet and be able to travel. They have to be good, efficient producers and be able to raise calves and be able to hike to water. They're worked hard out here, there's no doubt about that. We need to select for our environment, more than anything, really.

A lot of our customers trust that a bull of ours will move their herd in the right direction genetically. Very few of our buyers will bid just going off of the numbers. More buyers go off of straight phenotype because they know our program. We take a lot of care in selecting our cattle so they perform and look the part.

Mercedes Danekas-Lohse

Operation: Pheasant Trek
Location: Wilton, Calif.
Year attended BLI: 2012



PHOTOS COURTESY OF MERCEDES DANEKAS-LOHSE

► Mercedes Danekas-Lohse, Pheasant Trek, Wilton, Calif., grew her operation from a junior show program.

Tell me about your operation.

The Pheasant Trek program began as a junior show program and blossomed into raising and selling show heifers and range bulls. By hand-selecting a few show-heifer prospects every year from around the country, over the years our herd began to grow. We are very fortunate to have purchased females who have had very successful show careers and, more importantly, became even better producers.

What are your criteria for choosing breeding stock?

Our concentration has never been on EPDs, but rather on good structure and current pedigrees all put together in a beautiful larger-framed package. When we choose a mating, I always first look at how a cow's structure can be improved; if she's tighter made, I will choose a soggy-made bull, and so on. Next I look at frame score.

Our animals need to perform and reach maximum weights at weaning. Our bull costumers appreciate this since that's the ideal trait they come to us for.

We only use AI (artificial insemination), so when choosing a sire, I try to research any prior progeny and the bloodlines represented in the pedigree. Our focus has always been to stay small in quantity, but large on quality, and with this mentality our herd has never grown larger than 45 head at one time. This has allowed us to concentrate on each individual.

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► Pheasant Trek customers appreciate the operation's success in the showing.

What are your customers looking for and how do you meet those needs?

We market our females to those looking for junior show heifers and individuals looking for donor prospects to incorporate into their seedstock programs. We market our bulls to commercial cattlemen and have also raised a few AI sires over the years.

Our customers seem to truly appreciate the history of our cow herd. Seedstock or commercial, our customers like the success stories that the base of our cow herd and their calves have had in the showing. This gives them proof that they are purchasing a line of quality genetics.

To this day I am very happy with the cow herd I have had and currently maintain. Our trait selection has proven itself successful in both the salering and the showing, but, most importantly, happy customers representing many realms of the industry.

Chris Throne

Operation: Throne Stock Farm
Location: Lexington, Ga.
Year attended BLI: 2011

Tell me about your operation.

My grandfather, Billy King, started his Angus herd in 1967. It was Irvington Farms at that point. Prior to that, he and his father operated the largest Holstein herd east of the Mississippi but sold out in 1967. Dr. A.V. Bartenslager from Virginia, who was his



► Chris Throne, Throne Stock Farm, Lexington, Ga., says breeding for environment and consistency are his major goals.

veterinarian, convinced him to get Angus cows and helped him select the foundation cows.

In 1985, he helped me start my own herd while I was working for him. In 2008, due to his health, we dispersed his cows and I continued with our operation. At Irvington, we were managing about 300 cows and selling 60-70 bulls. I still have customers from Florida and Alabama who buy some bulls from me.

I keep about 50 head of registered cows and 20 commercial cows to put ET (embryo transfer) eggs in. I usually sell about 10 bulls private treaty.

What are your criteria for choosing breeding stock and what tools do you use?

AI sires are chosen based on how they will complement the program. High-accuracy sires with daughters in production are preferred. For herd sires, we consider the top third of our bulls based on their pedigrees, dams and structure. We look for consistency more than anything. Background factors — pedigrees — matter. We really look at dam performance in this environment.

For females, we do try to grow as many replacements as we can and look at their performance at breeding. We don't cull as hard early on the heifers; that happens farther down the road. We retain about the top 80%, and we let the late-bred females sort themselves out. We are also trying to build a few more numbers to get the cow herd back to where it needs to be.

The females that don't perform up to snuff, those leave the operation. We treat all of our females like commercial cows; they aren't babied along. The cows need to thrive in this environment. If they can survive here, they can survive just about anywhere.

We haven't used DNA technology up to this point. We focus on maternal EPDs, but stay away from extremes. The EPDs are used as a check, but not a high priority. We do look at the cow energy value index (\$EN), and \$W is also becoming a consideration. We must keep all of the traits in moderation because of our environmental limits. We don't look for too much milk or growth because those cows tend to have higher maintenance requirements.

What are your customers looking for and how do you meet those needs?

Our customers want cattle that can perform in this part of the country. Most



guys are looking for calving-ease bulls. A lot of them are part-time ranching customers, so they generally look for a low-birth-weight/high-calving-ease bull. The beef value index (\$B) doesn't fit with our breeding program because it's a terminal index.

It's hardest to be in the middle of the road, but I've found over the years that it's a good place to be. I make sure to keep milk EPDs in line. If they have more than 25 in the milk EPD, that can mean too much maintenance in this environment. Eighty pounds of yearling weight is what I feel is the upper end for our resources.

I won't sell a bull I wouldn't consider keeping myself. I make sure these bulls are out of reliable maternal lines and good cows.

I'm an equal-opportunity culler. Any animals that don't meet expectations are removed. We ultrasound the bulls as yearlings and give each a breeding soundness exam. We hold on to the bulls until we can get all the information on them.

We have customers across the spectrum. Some are clued into the numbers; others pick them from visual appraisal alone. That's why I like selling by private treaty; it's a more one-on-one situation.



Editor's Note: Funded by the Angus Foundation, BLI provides Association members ages 25-45 the opportunity to network with their fellow peers in the breed, while learning more about the organization and the beef industry as a whole. Hosted in June, the event includes time at the American Angus Association and an industry tour spotlighting different segments of the beef industry. Applications to attend the 2015 BLI June 22-25 are due March 2. Download an application at www.angusfoundation.org/Fdn/Files/2015BLIApplication.pdf or call the Events & Education Department at 816-383-5100 for more information.