

## *Our Breeding Philosophy*

Our breeding philosophy is one of balance, like many programs. It seems like a simple philosophy, yet truly maintaining balance that is above average is an art. Balance in our mind translates to above average EPD's, superior phenotype, and excellent maternal characteristics. Though we attempt to maintain balance, every trait is still on a priority list. When we have a cow in the chute every mating decision is designed to make a better female.

We understand that every animal needs the foundation of good feet, sound skeletal structure, fertility, and good udder quality before advancing on to other traits of economic importance. These are our highest priority traits in every mating decision, yet sometimes the most difficult to identify.

Calving ease and growth are both very important traits that make up the majority profit for most cattlemen, so we always have these traits on the upper 1/3 of our priority list. However, we believe that both calving ease and performance should not be selected for extreme cases. We prefer newborn calves to be born closer to their due date so they don't miss out on any key immunity advantages in the womb. Yet, we need calves to be born unassisted for your management and ours. Birth weight is an indicator of calving ease, so we prioritize calving ease over birth weight. Performance is great, ultimately it pays the bills. Though it pays the bills, we don't need to be in the top 1% for performance, or any trait for that matter. All animals need sound foot and skeletal structure to carry their own body weight. If we lose correct structure, we lose longevity.

Carcass traits are always high on our priority list, we believe in producing great tasting, healthy, nutritious beef to better feed the world. We understand that not all producers retain ownership in their calf crop. Yet, we can't afford to be the only industry in the world that doesn't prioritize what our consumer prefers. Increased beef demand comes from great tasting, healthy, nutritious beef. We all benefit from increased beef demand. Most cattlemen that do retain ownership in their cattle will tell you that yield is king and grade is gravy. We select for well above average marbling, yet we need the ribeye size and optimal fat to help to keep yield acceptable, while maintaining fleshing ability in our cowherd. Yield is often manageable, yet we need our genetic selection pressure to insure yield is acceptable and not an issue.

Expected Progeny Differences are an excellent tool to push your herd in a progressive direction. They are much more than just "numbers" when they have some accuracy reported from good ethical data. All bulls in the sale have been weighed and measured for birth, weaning, yearling, ultrasound, and tested with the GGPLD to increase that accuracy. On the same note, we feel like phenotype is just as high of a priority. However, if a cow doesn't have the phenotype for longevity she is far less likely to profit as much over her lifetime regardless of the performance or carcass traits she possesses. When prioritizing EPD's and trying to balance them out, we do think it is important to look at the heritability of each trait. True balance is a difficult challenge to accomplish and it is our continued effort to provide you with superior balanced seed-stock.

### Heritability chart

Trait	CED	BW	WW	DMI	YH	PG	SC	Doc	HP	CEM	Milk	MW	MH	FAT	MARB	REA	CW
Calving ease direct (CED)	.22 <sup>1</sup>	-.65 <sup>2</sup>															
Birth weight direct(BW)		.44															
Weaning direct (WW)			.20	.44													
Dry-matter intake (DMI)				.37													
Yearling height (YH)					.50	.48 <sup>3</sup>											
Postweaning gain (PW)						.20	.28 <sup>3</sup>										
Scrotal circumference (SC)							.47										
Docility (Doc)								.37									
Heifer pregnancy (HP)									.14								
Calving ease maternal (CEM)										.11 <sup>4</sup>							
Maternal milk											.14						
Mature weight (MW)												.37	.75				
Mature height (MH)													.61				
Fat thickness (FAT)														.34			
Marbling (MARB)															.45		
Rib-eye area (REA)																.38	.44
Carcass weight (CW)																	.38

<sup>1</sup>Heritability estimates are on the diagonal.

<sup>2</sup>Upper off-diagonals are genetic correlations.

<sup>3</sup>Genetic correlation between 365-day yearling weight and SC or YH.

<sup>4</sup>Maternal component only.

### 2017 Larson Angus Ranch Bulls vs. Non- Parent Bull Average

2017 Larson Angus Ranch Bulls Average

CED	BW	WW	YW	RADG	DMI	YH	SC	DOC	HP	CEM	Milk	MW	MH	CW	MARB	RE	FAT
8	0.3	54	96	0.22	0.19	0.3	0.7	15	9.8	10	27	20	0.2	38	0.85	0.7	0.018

Spring 2017 Non- Parent Angus Bulls Breed Average (144,759 bulls for Birth, Weaning, Yearling)

CED	BW	WW	YW	RADG	DMI	YH	SC	DOC	HP	CEM	Milk	MW	MH	CW	MARB	RE	FAT
6	1.2	48	85	0.21	0.19	0.5	0.8	14	11	8	24	27	0.3	33	0.56	0.5	0.020

### Our Goals vs. 2017 Larson Angus Ranch Bulls

Goals:

CED	BW	WW	YW	RADG	DMI	YH	SC	DOC	HP	CEM	Milk	MW	MH	CW	MARB	RE	FAT
25%	25%	25%	25%	25%	25%	50%	50%	30%	25%	25%	35%	60%	60%	25%	15%	25%	50%

2017 Sale Bulls

CED	BW	WW	YW	RADG	DMI	YH	SC	DOC	HP	CEM	Milk	MW	MH	CW	MARB	RE	FAT
30%	30%	25%	25%	45%	55%	65%	60%	50%	60%	30%	25%	60%	65%	35%	15%	30%	50%

