South TX Beef Meeting

July 26, 2019

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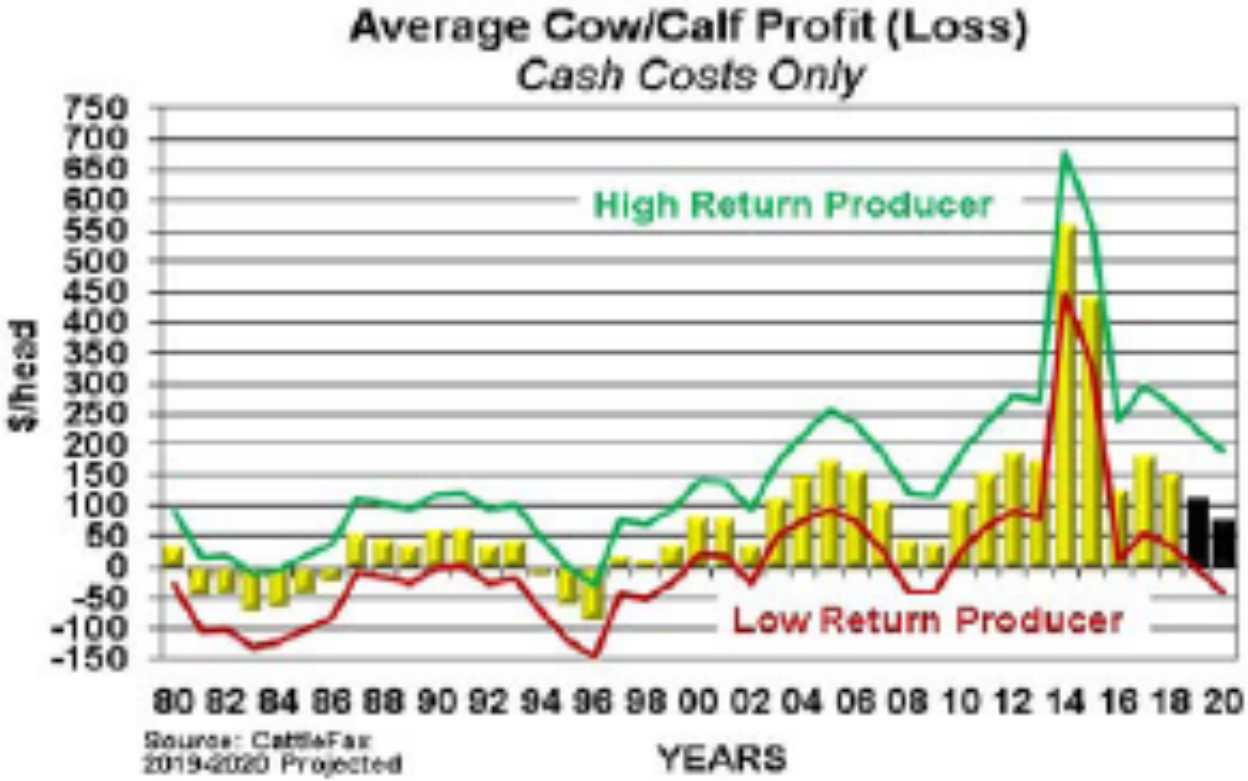
Chart of the Month



Generate revenue and drive efficiency

- Aggressively Manage Reproduction
  - Front load calving season
  - Goal of 80% calves in 30 days
  - Drive pounds weaned/cow exposed
  - Older calves generate more revenue/profit
- Long Term Plan
  - Genetics are only permanent and additive input
  - Not a quick return but an investment
  - Have a plan where you want to go
  - Manage costs with feed efficiency and mature size
  - Use data and technologies available to you
- Who will buy your calves?
  - What do they want?
  - What drives value?
  - Where do you need to improve?

Benchmark against who?

Beef consumption

Last 50 years of US per capitia consumption in lbs						
	Beef	Pork	Chicken	Turkey	Fish	Total
1977	91.8	47.0	42.8	8.7	12.6	202.9
1987	73.9	49.2	57.2	14.7	16.1	211.1
1997	65.7	47.8	71.9	17.3	14.3	217.0
2007	65.3	50.8	86.4	17.6	16.3	236.4
2017 est.	57.1	50.8	91.6	17.0	15.5	232.0
50 year change	-37.8%	8.1%	114.0%	95.4%	23.0%	14.3%
USA's population increased 106,300,000 or 48.3% since 1977						
% after growth	-7.8%	60.3%	217.3%	189.7%	82.4%	69.5%

Chicken leads the race

Day 43 **Day 57** **Day 71** **Day 85**

Pigs focusing on growth/efficiency

1972

836 Lbs

220 Lbs

FC: 3.8

32%

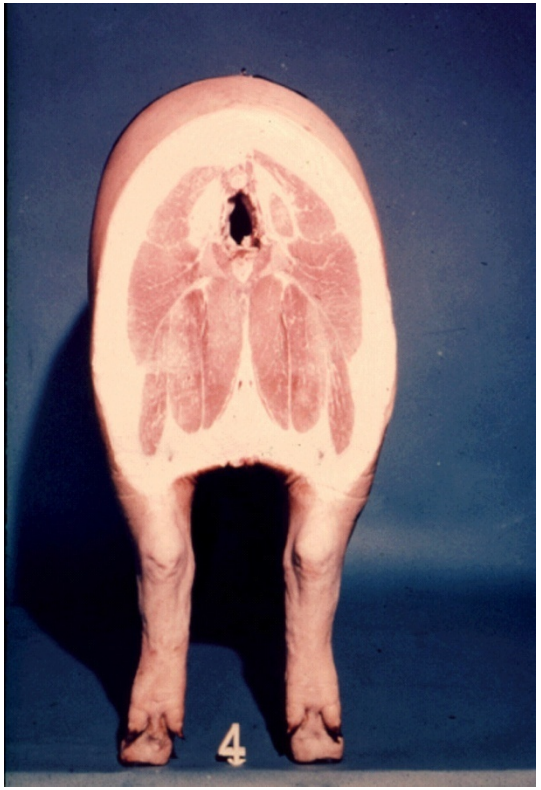
2007

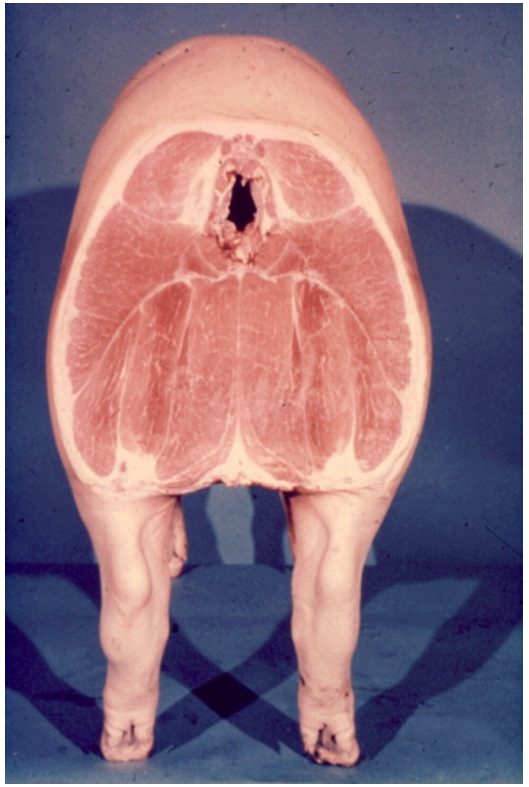
715 Lbs

275 Lbs

FC: 2.6

…and lean %



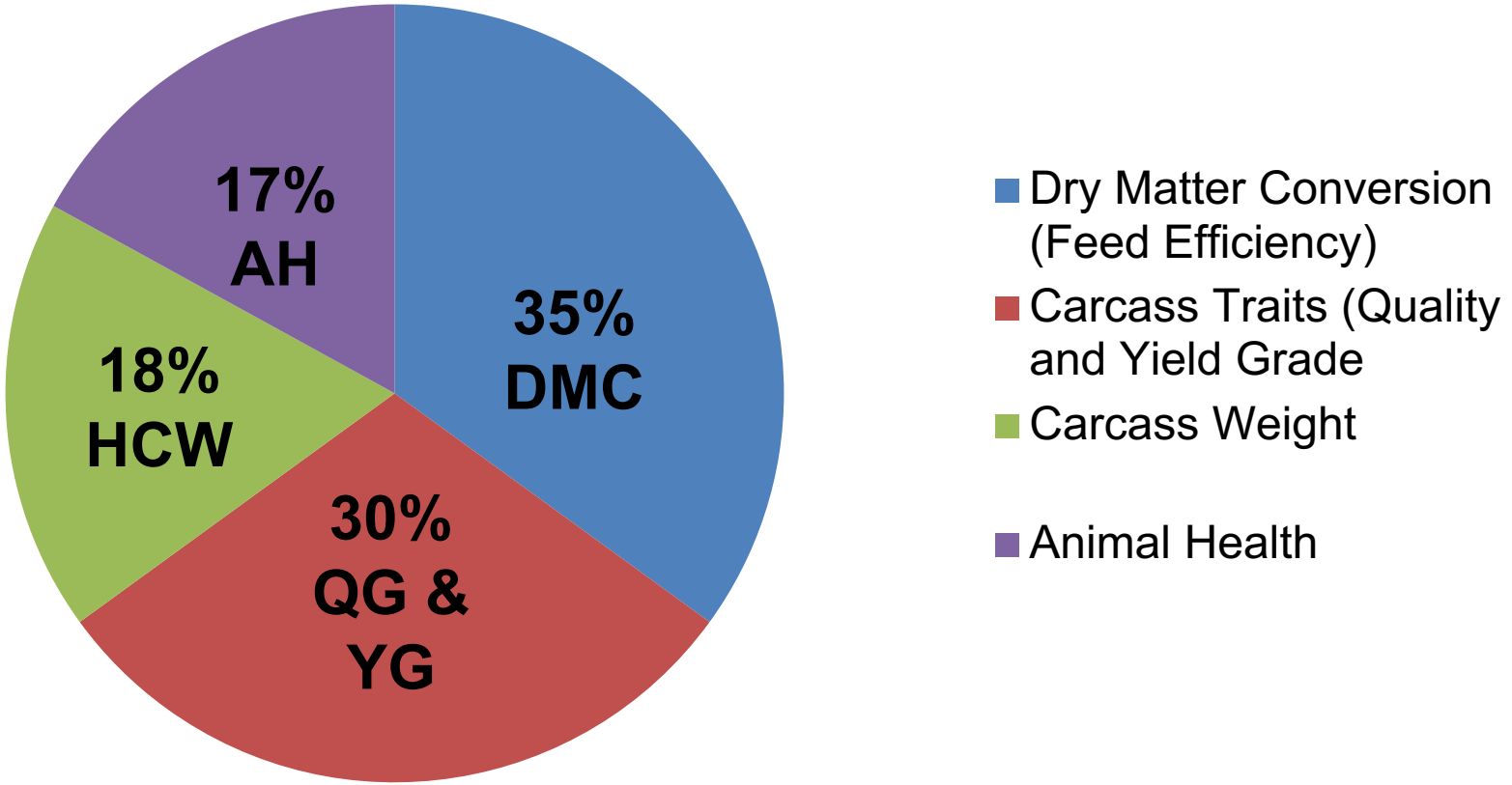


Will the way we sell/value cattle change?

Using data to maximize customer profit from genetic progress

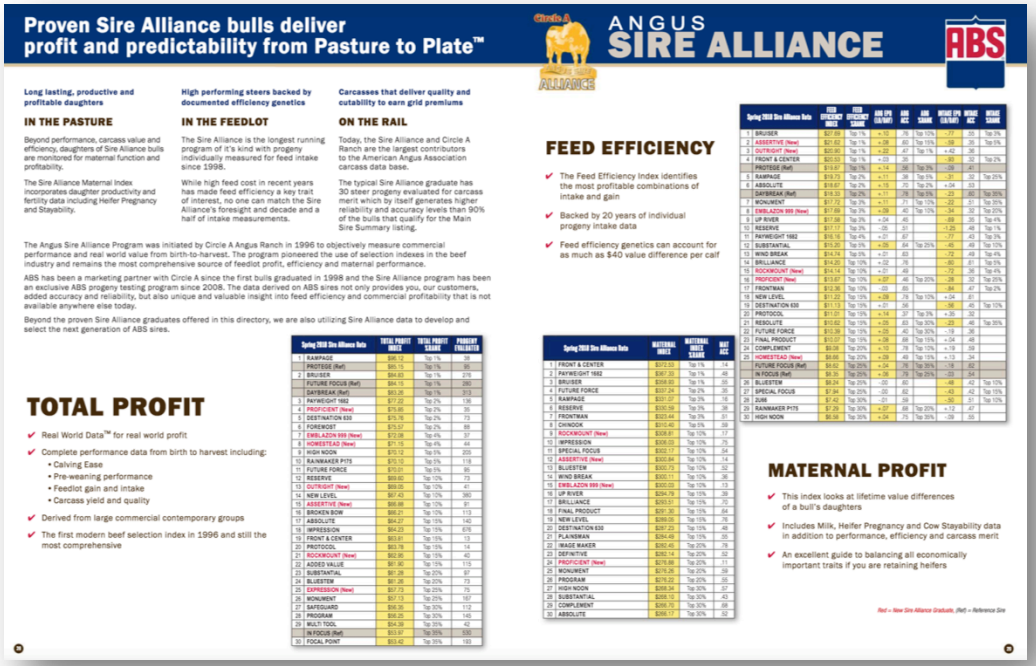
Create, deliver and demonstrate the value proposition

Value Discovery and Feed Yard Profit Drivers



Data drives improvement

- The Angus Sire Alliance continues to be an important part of our program
- Developed significant PT and validation capabilities to collect full lifecycle data (maternal, performance, **feed intake**, **carcass**, etc.) with other partners in Angus and other breeds
- Full lifecycle data collection for Beef x Dairy



ABS InFocus™

Cactus

Hy-Plains Feedyard

ABS Feed Intake / Efficiency testing

- Started with Angus Sire Alliance relationship
- 20 years of progeny intake data
- Over 200 Sires tested
- Represents most sire lines in the Angus breed
- Results published as Profitability Index

Feed Efficiency

- The Feed Efficiency Index identifies the most profitable combinations of intake and gain
- Backed by 20 years of individual progeny intake data
- Feed efficiency genetics can account for as much as $40 value difference per calf

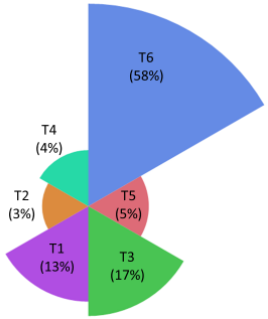
	Spring 2018 Sire Alliance Data	Feed Efficiency Index	Feed Efficiency %Rank	ADG EPD	ADG Acc	ADG %Rank	Intake EPD	Intake Acc	Intake %Rank
1	BRUISER	$ 27.69	Top 1%	+.10	.76	Top 10%	-.77	.55	Top 3%
2	**ASSERTIVE (New)**	$ 21.62	Top 1%	+.08	.60	Top 15%	-.59	.35	Top 5%
3	**OUTRIGHT (New)**	$ 20.90	Top 1%	+.22	.47	Top 1%	+.42	.36	
4	FRONT & CENTER	$ 20.53	Top 1%	+.03	.35		-.93	.32	Top 2%
	PROTÉGÉ (Ref)	$ 19.87	Top 1%	+.14	.56	Top 3%	-.09	.41	
5	RAMPAGE	$ 19.73	Top 2%	+.11	.38	Top 5%	-.31	.32	Top 25%
6	ABSOLUTE	$ 18.67	Top 2%	+.15	.70	Top 2%	+.04	.53	
	DAYBREAK (Ref)	$ 18.33	Top 2%	+.11	.78	Top 5%	-.23	.60	Top 35%
7	MONUMENT	$ 17.72	Top 3%	+.11	.71	Top 10%	-.22	.51	Top 35%
8	**EMBLAZON 999 (New)**	$ 17.69	Top 3%	+.09	.40	Top 10%	-.34	.32	Top 20%
9	UP RIVER	$ 17.58	Top 3%	+.04	.45		-.69	.35	Top 4%
10	RESERVE	$ 17.17	Top 3%	-.05	.51		-1.25	.48	Top 1%
11	PAYWEIGHT 1682	$ 16.16	Top 4%	+.01	.67		-.77	.43	Top 3%
12	SUBSTANTIAL	$ 15.20	Top 5%	+.05	.64	Top 25%	-.45	.49	Top 10%
13	WIND BREAK	$ 14.74	Top 5%	+.01	.63		-.72	.49	Top 4%
14	BRILLIANCE	$ 14.20	Top 10%	+.02	.76		-.60	.61	Top 5%
15	**ROCKMOUNT (New)**	$ 14.14	Top 10%	+.01	.49		-.72	.36	Top 4%
16	**PROFICIENT (New)**	$ 13.67	Top 10%	+.07	.46	Top 20%	-.28	.32	Top 25%
17	FRONTMAN	$ 12.36	Top 10%	-.03	.65		-.84	.47	Top 2%
18	NEW LEVEL	$ 11.22	Top 15%	+.09	.78	Top 10%	+.04	.61	
19	DESTINATION 630	$ 11.13	Top 15%	+.01	.56		-.56	.45	Top 10%
20	PROTOCOL	$ 11.01	Top 15%	+.14	.37	Top 3%	+.35	.32	
21	RESOLUTE	$ 10.62	Top 15%	+.05	.63	Top 30%	-.23	.46	Top 35%
22	FUTURE FORCE	$ 10.39	Top 15%	+.05	.40	Top 30%	-.19	.36	
23	FINAL PRODUCT	$ 10.07	Top 15%	+.08	.68	Top 15%	+.04	.48	
24	COMPLEMENT	$ 9.08	Top 20%	+.10	.78	Top 10%	+.19	.59	
25	**HOMESTEAD (New)**	$ 8.66	Top 20%	+.09	.49	Top 15%	+.13	.34	
	FUTURE FOCUS (Ref)	$ 8.62	Top 25%	+.04	.76	Top 35%	-.18	.62	
	IN FOCUS (Ref)	$ 8.35	Top 25%	+.06	.79	Top 25%	-.03	.54	
26	BLUESTEM	$ 8.24	Top 25%	-.00	.60		-.48	.42	Top 10%
27	SPECIAL FOCUS	$ 7.94	Top 25%	-.00	.62		-.43	.42	Top 15%
28	2U66	$ 7.42	Top 30%	-.01	.59		-.50	.51	Top 10%
29	RAINMAKER P175	$ 7.29	Top 30%	+.07	.68	Top 20%	+.12	.47	
30	HIGH NOON	$ 6.58	Top 35%	+.04	.75	Top 35%	-.09	.55	

COWS

Do they eat the same?

- USDA Clay Center data says no
  - Some cows eat twice as much as others – and still weight the same.
- University of Lethbridge data says no
  - Top 1/3 eat 10% more than the bottom 1/3.
- Data says:
  - Big eaters eat as much as **3 tons more dry matter per cow per year.**
- What does that cost? $150 - $300 / cow?

Partnering with a leading US feedlot to develop profitable terminal genetics



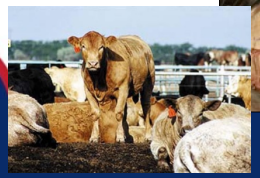
Longstanding ABS beef genetics customer

R&D partnership to discover value of terminal genetics in customer system

Proprietary profit-focused index being finalised

<2015 | 2016 | 2017 | 2018 | 2019+

Starting to collect data on total profitability from birth to harvest



Develop a scalable commercial supply and value share model

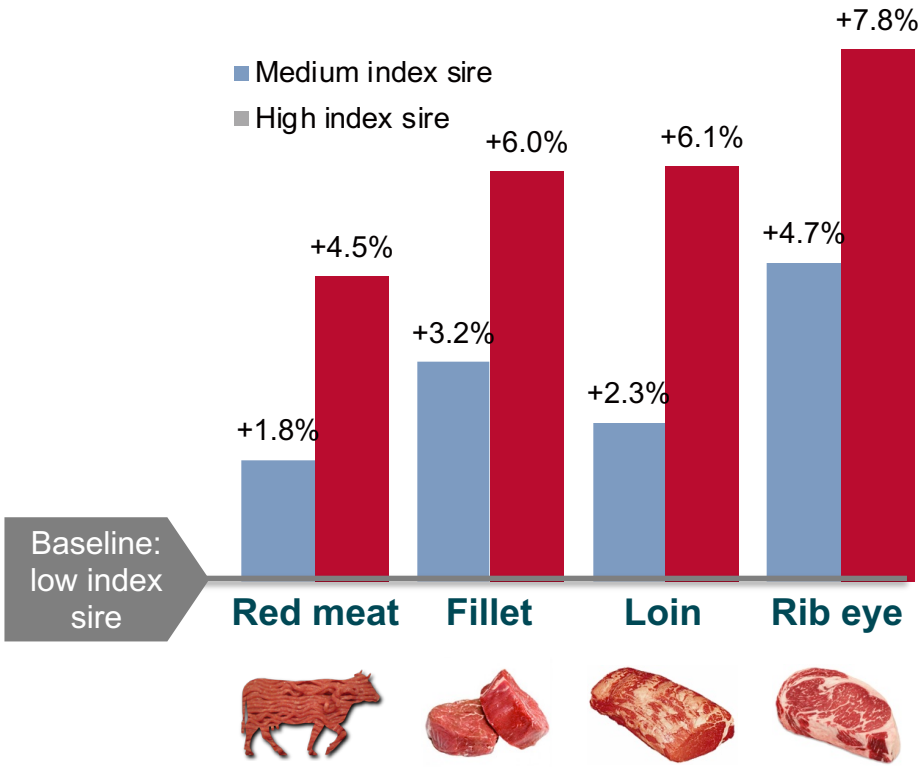
US Terminal Index validation results

	Steers		Heifers	
	Sire 1	Sire 2	Sire 1	Sire 2
Index	**High**	**Average**	**High**	**Average**
Number Progeny	56	50	44	40
Hot Carcass Weight (lb)	934	902	812	785
Yield Grade	3.2	3.4	2.5	3.0
Marbling Score (QG)	572 (CH°)	494 (CH^{-})	495 (CH^{-})	451 (CH^{-})
Feed Conversion	5.5	6.0	4.7	5.4
Carcass Value	$1,675	$1,577	$1,486	$1,395
Production Costs	$506	$527	$345	$387
Marginal Value (Breakeven)	$1,170	$1,050	$1,140	$1,008
Sire Advantage	**$120/hd**	**--**	**$132/hd**	**--**

Delivering more profitable beef genetics to a leading European beef processor

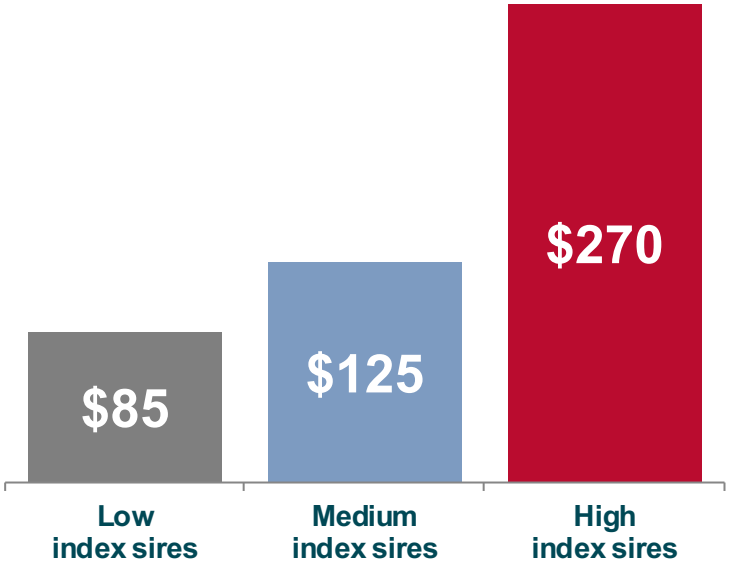
Demonstrating which genetics produce more profitable carcasses

Carcass yield compared with low indexing sire



Delivering incremental profit

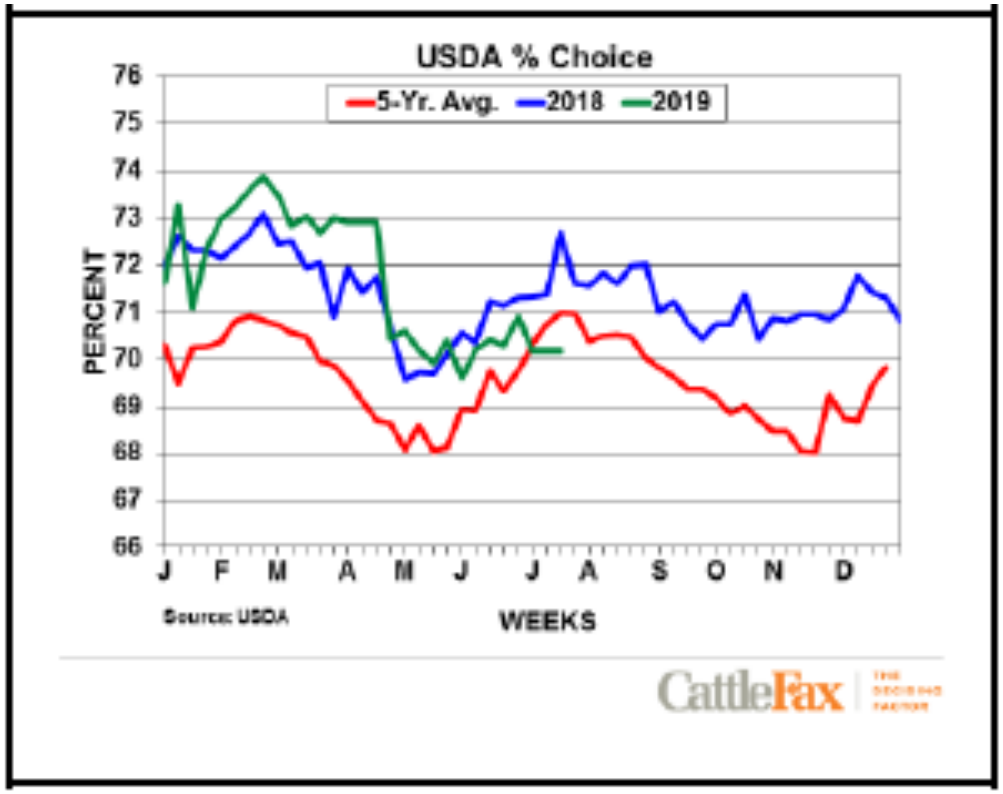
Profit per head of cattle realised <u>by our customer</u>



Source: Actual data from leading UK customer

Close the loop and capture value

- Connections will lead to more transparency
- Document health, nutrition and genetics
- Validation of genetics
  - Reduce the risk
  - Know how to manage
- Predict the outcome
  - Angus Sire Link and similar programs
  - Validation programs like we are working on with Cactus Feeders

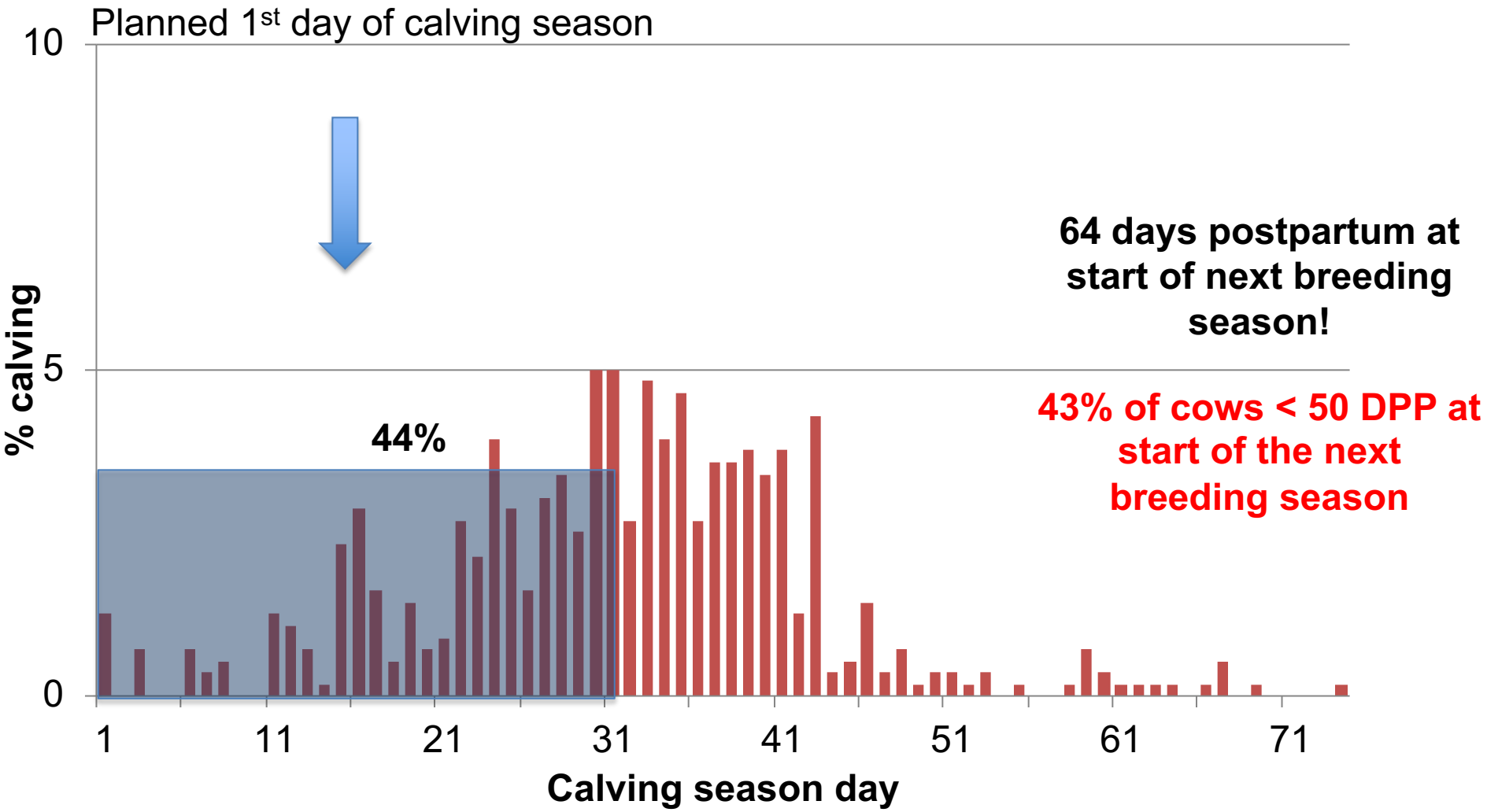


The percentage of cattle grading Choice through the first half of the year averaged 71.8 percent, .4 percent above the first half of 2018 average of 71.4 percent, and well above the five-year average of 69.6 percent. Improving herd genetics contributed to the historically high percentage of the cattle grading Choice.

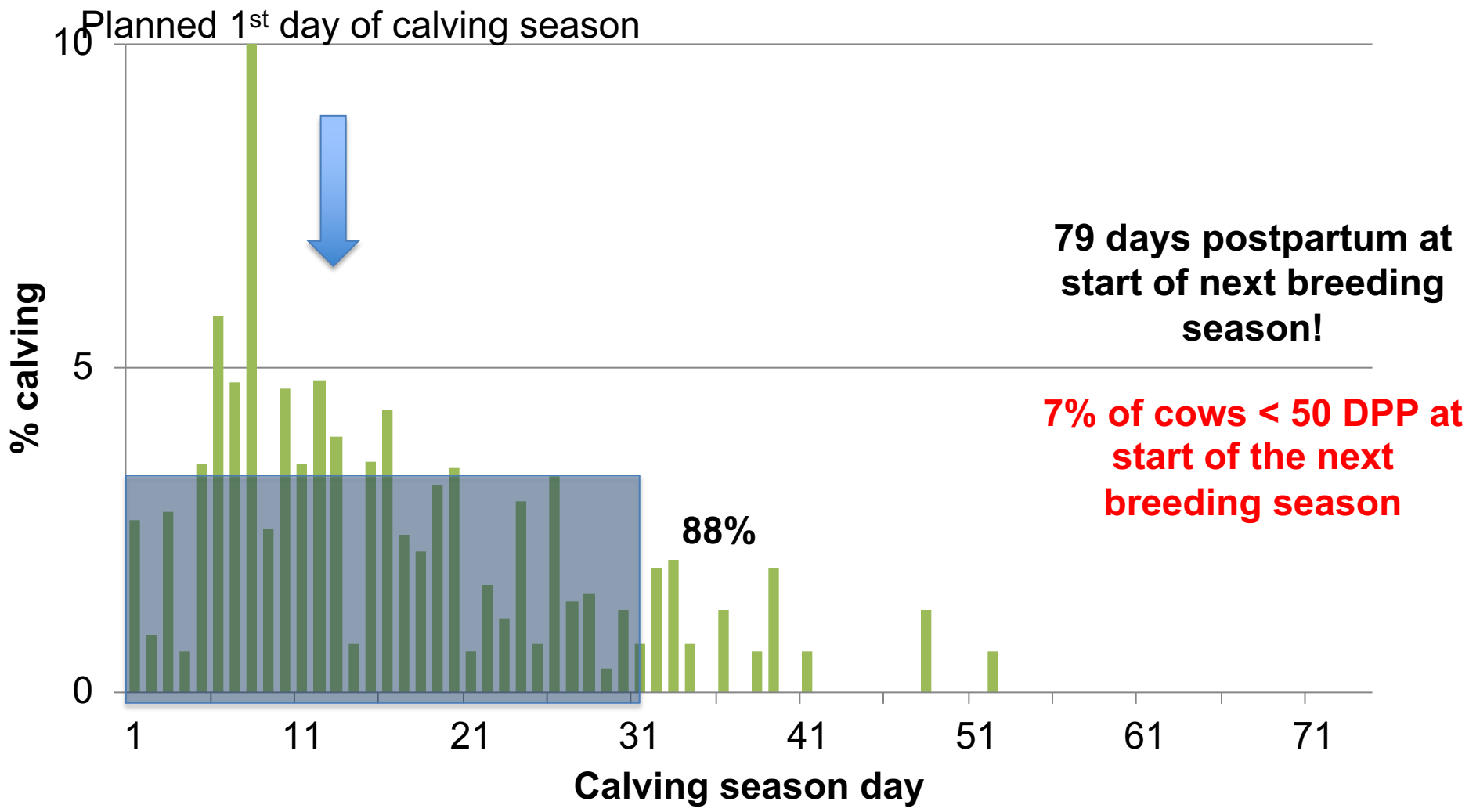
ECONOMICS OF IMPLEMENTING TAI PROGRAM

Pregnancy has 4 times greater economic impact than any other production trait!

Calving distribution after Exposure to Bulls



Calving distribution after Exposure to AI and ES



123 years ago . . .

The work of breeding good animals is a work for a long time, requiring pluck, patience, a high degree of intelligence, and a close practical judgment.

Money will buy such animals, but it will not breed them successfully even after it has bought them. That is the work of brains.

W. D. Hoard

Founder, 1885