

AI Sire Procurement

Profit From Genetic Progress



Industry Background

2018 US AI Industry Stats

National Association of Animal Breeders

Breed	US Semen Sales	Export Sales	Custom Frozen	Total
Angus	2,400,214	3,329,223	1,088,935	6,818,372
Simmental	570,054	65,444	426,924	1,062,422
Limousin	501,706	19,022	737,037	1,257,765
Red Angus	142,192	284,788	205,249	426,980
Polled Hereford	81,883	66,926	85,149	233,958
Charolais	78,353	28,179	58,538	165,070
Gelbvieh	37,364		72,821	110,185
Wagyu	27,788	8,702	128,365	164,855
Hereford	25,229	2,076	56,210	83,515
Shorthorn	2,817		39,051	41,868

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ABS Background

Key tenets through ABS history

- Focus on economically relevant traits
- Performance testing and validation
- Belief in the value of Crossbreeding
- Investing in Technology

Our Business

- 70% Angus
- 15% Simmental
- 5% Red Angus
- 4% Hereford
- 4% Club Calf

Our Business

- 71% Calving Ease
- 50% Growth
- 63% Maternal
- 34% Carcass & Beef Value
- 41% Phenotype

Our Business

- 60% Commercial***
- 35% Seedstock
- 5% Club Calf / Show Ring

***All of our growth is coming from this segment

Commercial Business

- Key Points

- Moderate AI usage on heifers
- Low AI usage on cows
- Require full service Timed AI programs
- Rely almost exclusively on proven & semi-proven sires
- Economics primarily drive decisions versus emotion

Commercial Business

- Needs

- Convenience & full service programs
- High pregnancy rates and live calves
- Problem free, maternally oriented replacements
- Growth – pounds to sell at weaning
- Post weaning growth and carcass merit if retaining ownership or selling into a value added chain

Commercial Business

- Genetic Attributes

- Calving Ease
- Maternal Traits
- Functional Phenotype
- Docility
- Growth and carcass merit

ABS Sire Selection

<input type="checkbox"/>	NAAB	Name	Calving	CED	BW	WW	YW	SC	DOC	HPG	Milk	CW	Marb	REA	\$M	\$W	\$B	Total	Maternal	Feed
	Reg #	Sire	Ease	Acc	Acc	Acc	Acc	Acc	Acc	Acc	Acc	Acc	Acc	Acc				Profit	Profit	Eff.
		MGS		%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
<input type="checkbox"/>	29AN2043	BLACK MAGIC ♀	★★	-.4	+5.9	+103	+189	+2.21	+27	+9.2	+28	+88	+98	+1.21	+40.00	+83.00	+238.00			
<input type="checkbox"/>	17803074	SILVEIRAS CONVERSION 8064 BYERGO PICASSO		.52 95	.87 95	.82 1	.70 1	.64 1	.59 10	.18 70	.41 25	.49 1	.43 10	.44 1	90	4	1			
<input type="checkbox"/>	29AN2032	RAMESES ♀	★★				+167	+1.37	+12	+6.6	+28	+79	+98	+1.25	+43.00	+89.00	+217.00			
<input type="checkbox"/>	18746724	QUAKER HILL RAMPAGE 0A36 A A R TEN X 7008 S A		.83 70	.45 1	.47 1	.37 15	.25 95	.48 10	.40 10	.40 10	.40 10	.40 10	.40 10	90	2	1			
<input type="checkbox"/>	29AN2023	MAGNITUDE ♀	★★★	-.0.9	+84	+57	+159	+37	+3	+3	+72	+73	+93		100	+105.00	+180.00			
<input type="checkbox"/>	18543414	K C F BENNETT SOUTHSIDE PLATTEMERE WEIGH UP K360		.87 15	.82 1	.9 1	.64 1	.5 1	.50 1	.43 1	.50 1	.43 1	.43 1	.43 1		1	3			
<input type="checkbox"/>	29AN2059	AUTHORIZE		+.0.4			+141	+6	+9	+54	+75				100	+93.00	+144.00			
<input type="checkbox"/>	18899092	KOUPAL ADVANCE 28 ELLINGSON IDENTITY 9104		10	30	2	2	55	85	60	10	15	40	15	45	1	25			
<input type="checkbox"/>	29AN1891	RAMPAGE ♀	★★★	+9	+2.5	+82	+139	+1.08	-2	+13.2	+20	+65	+48	+1.48	+53.00	+83.00	+168.00	+100.96	+337.41	+22.11
<input type="checkbox"/>	16925771	MCC DAYBREAK IDEAL 4355 OF 0T26 2440		.91 30	.97 80	.97 2	.95 3	.95 30	.91 95	.67 20	.86 80	.80 3	.78 50	.74 1	70	4	10	1	2	1
<input type="checkbox"/>	29AN2093	PATRIARCH		+13	-1.4	+73	+137	+0.85	+20	+15.5	+32	+53	+81	+92	+70.00	+85.00	+154.00			
<input type="checkbox"/>	18981191	S S NIAGARA Z29 CONNELLY THUNDER		.37 10	.52 10	.48 5	.42 2	.47 45	.34 35	.25 10	.31 10	.41 20	.38 20	.38 10	30	3	15			
<input type="checkbox"/>	29AN2077	INERTIA ♀		+8	+1.4	+76	+136	+0.78	+32	+9.3	+36	+64	+1.40	+89	+53.00	+90.00	+208.00			
<input type="checkbox"/>	18638043	G A R MOMENTUM G A R PROPHET		.43 35	.72 55	.41 4	.36 3	.39 50	.36 2	.25 70	.30 3	.39 4	.36 1	.36 10	70	2	1			
<input type="checkbox"/>	237AN2949	COWBOY UP	★★	+9	+2.6	+75	+136	+1.53	+11	+8.6	+11	+51	+11	+41	+25.00	+51.00	+123.00			
<input type="checkbox"/>	18286467	HA OUTSIDE 3008 SITZ UPWARD 307R		.82 30	.97 80	.96 5	.94 3	.94 10	.87 70	.61 75	.64 95	.63 20	.59 95	.56 65	95	60	50			
<input type="checkbox"/>	237AN2869	ENHANCE	★★★	+14	-0.2	+67	+135	+1.95	+37	+9.8	+31	+67	+1.20	+78	+72.00	+75.00	+225.00			
<input type="checkbox"/>	18170041	SYDGEN EXCEED 3223 SYDGEN LIBERTY GA 8627		.84 4	.94 20	.91 15	.83 4	.82 3	.78 1	.49 60	.40 15	.52 3	.47 3	.47 15	20	10	1			
<input type="checkbox"/>	29AN2025	STELLAR ♀	★★★	+9	0.0	+77	+134	+0.71	+18	+15.5	+26	+43	+45	+54	+96.00	+85.00	+120.00			
<input type="checkbox"/>	18397542	MOHNEN SUBSTANTIAL 272 CONNELLY FINAL PRODUCT		.64 30	.82 25	.77 3	.61 4	.62 55	.36 40	.39 10	.33 40	.49 35	.38 55	.39 45	1	3	55			

Data

Phenotype



Profit From Genetic Progress



Data vs Phenotype

It's No Longer a debate

- Today in most breeds a large measure of both are possible and required to have broad market appeal and deliver value to producers

Data vs Phenotype

It's No Longer a debate

- For ABS there are critical data and phenotype faults that exclude bulls from consideration

EPDs and Indexes are key

- Backed by complete performance data
 - BW, WW, YW, scan data, intake data
 - Ideally from large contemporary groups
 - Maternal & fertility traits will be critical
 - Genomically Enhanced EPDs are almost mandatory today

Genomics

- Don't tell the whole story and are not a replacement for progeny testing
- They do provide a significant accuracy advantage on young sires to better identify candidates for AI usage and progeny testing

EPDs and Indexes are key

- We value balanced, multi-trait EPD profiles versus single trait extremes
- Selecting for top end index values that balance performance and output with input requirements and overall profitability

The speed and volume of data has changed dramatically



Phenotype

- Soundness and foot quality
- Added capacity and fleshing ability
- Teat and udder quality
- Moderate framed
- Hair coat – ability to slick off

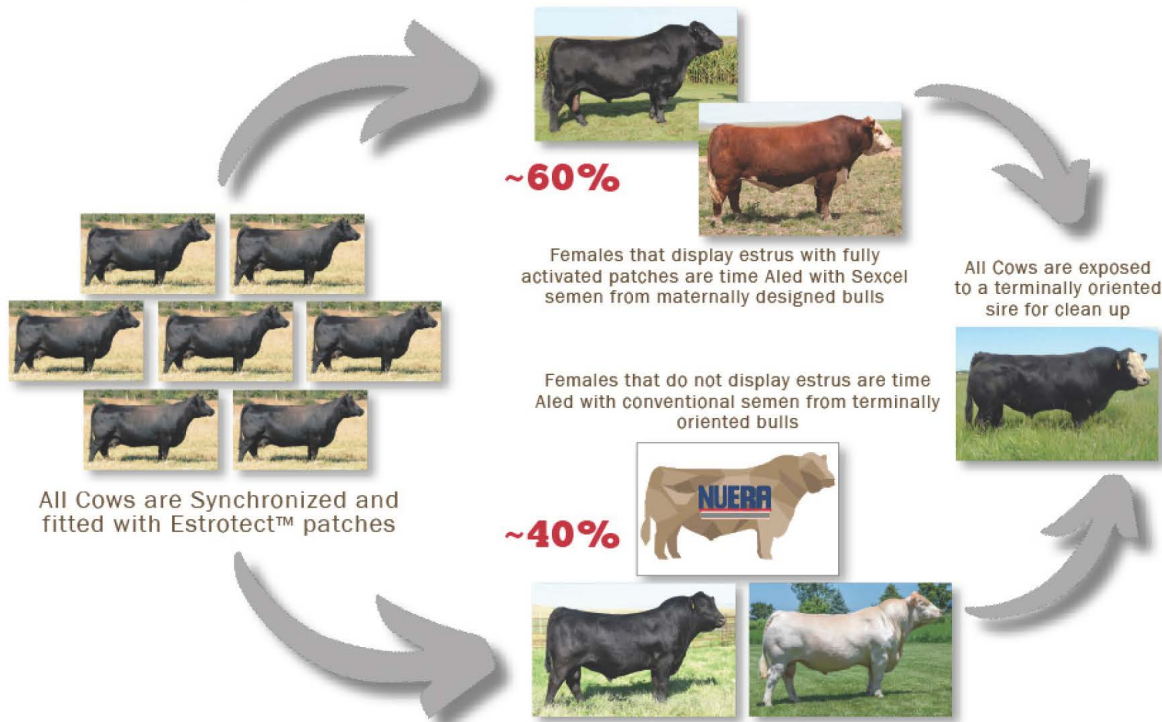
Other Considerations

- Health status
- Semen quality
- Photo quality

The Future Provides Opportunity

ALL BULLS AREN'T CREATED EQUAL

Make Matings with Intent



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Our Shorthorn wish list

- Double Digit CED with $< +1.0$ BW EPD
- $>+100$ YW EPD
- Top 10% \$CEZ and \$BMI
- Proven sire with progeny data
- Red, homozygous polled & defect free
- 5.5 – 6.5 frame score and slick haired