

2018 ASA/UNIVERSITY OF ILLINOIS SIRE TEST

PERFORMANCE REVIEW

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The National Sire Test (NST) program has been a valuable tool for testing the ability of Shorthorn genetics to perform in a real-world setting. The second year of the NST and our partnership with the University of Illinois provided us with more data on a genetically diverse bunch of Shorthorn sires. Once again, we were able to collect a full set of data on Shorthorn-influenced cattle from birth to rail. The NST provides breeders the opportunity to compare the genetics in their breeding program in an unbiased, real-world setting while gaining more progeny data on their sires to help build a more accurate EPD profile. From a big picture standpoint, the NST gives ASA more information on the breed to show to the industry that our cattle have the capability to be used as a profitable piece of their breeding program.

Timeline and Management

For the second round of the NST, the U of I cows were bred in mid-December 2017. Like the previous year, these females were SimAngus based mature cows that are housed at the U of I Dixon Springs research farm in the southern region of Illinois. With 10 Shorthorn sires bred to 20 cows each, we were able to utilize 200 cows for this second cycle. The calving season began on August 30, 2018 and went through October 2. From a 52% AI conception rate, 94 calves were born. As these calves were raised up to weaning, they were asked to grow solely on mother's milk, and the cows had to raise these calves on minimal supplementation.

Weaning day came about 3 weeks later for the 2018 crop than their previous year counterparts, with March 7, 2019 being this year's recorded weaning date. The calves ranged from 156 to 189 days of age at weaning, up 23 to 30 days over the 2017 crop. Once again, the calves were preconditioned at Dixon Springs before being sent off to college to complete the feedlot portion of the NST on the U of I Beef Farm just off campus. They enrolled in the feedyard on May 8, and graduated 216 days later on December 10. The feedlot at U of I is a fully under roof facility, with slatted floors for waste management and rubber matting covering the floor to provide extra comfort to the cattle. The NST calves are grouped by sex and entry weight into feeding pens of 12-15 head. Each pen is equipped with a GrowSafe feed bunk to collect daily individual intake data on the calves. All cattle were implanted at the beginning of the feeding period, as well as re-implanted near the midway point of the test. The feedyard ration was approximately 0.65 Mcal/lb from an energy standpoint, and the ration consisted of approximately 30% dry rolled corn, 20% wet distiller's grains, 20% high moisture corn, 20% silage, and 10% corn-based supplement. The NST calves went to the Tyson plant at Joslin, IL for harvest on December 12. Initially, the cattle were expected to go to harvest a little earlier. However, the fat cattle market situation at the time led to holding onto these cattle a little longer, trying to catch a better market and more revenue per head.

The Data

On the next page, you will find a table comparing the data for the NST heifers and steers separately. With each bull not having equal numbers of male and female progeny, it's not a

fair comparison to lump all offspring together. Like always, I prefer to let you as breeders draw your own conclusions from the data rather than tell you what should be important. Nobody knows your operation better than you and what you want to emphasize in your breeding program. From studying the data in general terms, there are a few "big picture" points I would like to touch on.

For the second year in a row, calving ease was a major strength of the NST sires. The cattle posted a 99% unassisted calving record this year. While the U of I herd at Dixon Springs is pretty hands-off when it comes to assisting their mature cows, it's nice that these cows could have Shorthorn calves on their own with industry acceptable birth weights.

The NST cattle met industry standards for carcass merit once again. The entire crop averaged a 13.6 sq. inch ribeye area, with an average marbling score of 519. For those of you who are less familiar with the marbling score system, a score of 400 is needed for a carcass to be considered to grade USDA Choice. Scores above 500 reach the upper 2/3 of the Choice grade, which is often talked about being the "new goal" in beef quality grading. In this year's NST crop, 97% graded Choice or higher, with 47 head having marbling scores great enough to qualify as upper 2/3 Choice or better. In fact, 11 head graded USDA Prime. While there are some strong marbling genetics in the cow base, it is nice to see Shorthorn sires complement those black hided cows and still produce carcasses that garner a premium on the rail. From a Yield Grade (YG) perspective, only 12 head were YG4 or higher. Cattle that reach YG4 or 5 are the ones that take discounts on the carcasses, and the percentage of NST cattle to do that was small.

When studying the Dry Matter Intake (DMI) and feed to gain (F:G) data of the 2018 NST, the picture doesn't look as pretty as the previous class. For both steers and heifers, DMI was increased and F:G was lower than 2017. However, if you look at the small differences in the test, I think it starts to make sense. The calves in this round of the trial were on feed for an additional 4 weeks compared to the first set of NST calves. The 2018 calves stayed on feed later in their life cycle, when cattle naturally start to become less efficient in their growth. While there probably are still some differences in feed conversion between bloodlines in the two years' sire groups, I believe the timeline and the natural growth curve also played a role in the changes in these data points.


What Did We Learn?

Much like last year's review of the first NST calf crop, I think I am asking a question with several answers, none of which can be considered "wrong". From a breeder perspective, you might have seen something in the data to identify your next AI sire. From an industry view, we once again had cattle perform well enough to meet standards, showing that Shorthorn genetics can do things well to be commercially productive. From my chair at the association, I learned that we have breeders that are really interested in the information that the NST provides us. Inquiries and discussions with breeders who have participated in the program, as well as those who are interested in studying the data, give me optimism that we can work together to attempt to grow Shorthorn commercial acceptance. It takes buy-in from

all sides to make that happen, and having breeder interest is crucial.

With two full sets of NST data in the books and one more calf crop going through the program, I feel like we are starting to get a clearer picture of where the breed stands in crucial areas needed to gain commercial acceptance. With a sire evaluation program like the NST, it's important to gather information to compare and back up the genetics with relevant data. The University of Illinois has been a great partner in accomplishing that goal. The unbiased data collection and results give our breed some information to validate our cattle's commercial

acceptability. The calving ease, carcass, and feed efficiency components are helping us do that.

I want to thank the ASA Board of Directors, past and present, for seeing the need for this type of program and supporting it, as well as the breeders who have nominated their bulls to collect this information. We have one more year of data to collect with the U of I, and I'm looking forward to see how that information helps us keep building our Shorthorn resume' for the American cattle industry. 

Heifers

	Reg	#Prog	BW	CE	205WW	Temper	YW	Frame	%Choice	REA	YG	Marb	HCW	Fat	DMI	F:G	TestADG
Ash Valley Answer 5720	AR4225554	5	83	1.0	453	1.6	1000	5.4	100	13.3	3.09	435	791	0.49	20.51	6.46	3.23
Ash Valley Count 5792	4228061	7	77	1.0	450	1.3	985	5.2	100	12.8	3.64	537	813	0.65	21.69	6.56	3.34
Crooked Post Stockman 4Z	4196667	9	79	1.0	484	1.1	7059	5.7	100	13.0	3.57	565	813	0.64	20.93	6.63	3.22
Leveldale Ringo 337A	4206214	8	79	1.0	508	1.0	1031	5.2	100	13.0	3.50	544	811	0.59	21.53	7.13	3.13
Muridale Thermal Energy 15A	4218103	4	77	1.0	472	1.0	1024	6.0	100	14.3	3.55	465	884	0.67	21.43	5.70	3.79
Saskvalley Ramrod 155R	4161930	4	89	1.0	521	1.3	1108	6.0	100	13.9	3.16	581	791	0.6	20.99	7.39	2.86
SULL Red Reward 9321	AR48841	6	73	1.0	427	1.0	950	5.1	100	14.7	3.38	545	909	0.62	22.54	5.49	4.13
SULL RGLC Legacy 525	4223162	1	90	1.0	579	1.0	940	5.7	100	13.8	3.82	517	824	0.75	22.54	7.68	2.94
Waukaru Gold Band 5061	4221508	8	69	1.0	459	1.8	928	5.0	100	13.3	3.07	553	779	0.51	19.73	6.34	3.17
Waukaru Gold Card 1010	4175359	6	73	1.0	465	1.3	1027	6.3	100	13.5	3.08	503	801	0.54	21.05	7.04	3.00
All Heifers		58	77	1.0	470	1.3	1012	5.5	100	13.4	3.36	538	817	0.59	21.13	6.59	3.28

Steers

	Reg	#Prog	BW	CE	205WW	Temper	YW	Frame	%Choice	REA	YG	Marb	HCW	Fat	DMI	F:G	TestADG
Ash Valley Answer 5720	AR4225554	7	83	1.0	496	1.2	1122	5.8	100	13.2	3.12	475	781	0.54	20.40	7.36	2.80
Ash Valley Count 5792	4228061	3	81	1.0	525	1.0	1091	4.9	67	14.3	3.11	395	877	0.52	21.73	6.19	3.54
Crooked Post Stockman 4Z	4196667	3	87	1.0	480	1.3	1058	5.4	100	13.8	3.54	497	816	0.72	19.50	6.30	3.16
Leveldale Ringo 337A	4206214	3	101	1.0	576	1.3	1182	4.9	100	14.4	3.18	425	907	0.49	23.41	7.45	3.40
Muridale Thermal Energy 15A	4218103	2	78	1.0	548	2.0	1097	5.4	100	13.2	3.19	554	820	0.47	22.39	7.05	3.18
Saskvalley Ramrod 155R	4161930	5	92	1.0	525	1.0	1077	4.5	80	13.1	3.23	514	791	0.58	20.17	7.26	2.85
SULL Red Reward 9321	AR48841	3	89	1.0	529	1.0	1078	4.6	100	12.8	3.68	503	778	0.7	19.70	7.26	2.72
SULL RGLC Legacy 525	4223162	2	75	1.0	543	1.5	1087	4.8	100	12.6	3.69	586	776	0.66	21.14	7.22	3.01
Waukaru Gold Band 5061	4221508	3	93	1.0	512	1.5	1132	5.1	100	14.9	3.23	496	875	0.7	23.17	6.48	3.65
Waukaru Gold Card 1010	4175359	5	88	1.2	503	1.4	1090	5.7	100	14.5	3.05	510	831	0.56	21.49	6.40	3.40
All Steers		36	87	1.0	518	1.2	1100	5.2	94	13.7	3.26	485	821	0.59	21.06	6.91	3.12

EPDs as of 1/28/2020

	CED	BW	WW	YW	Milk	TM	CEM	Stay	YG	CW	REA	MB	FT	\$CEZ	\$BMI	\$F
Ash Valley Answer 5720	15	-2.1	51	79	13	38	14	16	-0.28	1	0.2	0.60	-0.07	50.28	141.95	61.14
Ash Valley Count 5792	13	-1.5	43	59	26	48	8	18	-0.39	-29	-0.11	0.10	-0.11	45.32	139.9	50.22
Crooked Post Stockman 4Z	11	1.2	70	107	24	59	9	14	-0.40	10	0.37	-0.25	-0.11	29.36	149.07	59.91
Leveldale Ringo 337A	13	0.4	54	82	23	49	8	16	-0.40	-14	-0.02	-0.14	-0.12	42.04	135.29	53.13
Muridale Thermal Energy 15A	13	1.3	96	94	20	52	9	22	-0.21	-3	0.04	0.35	-0.06	38.91	144.78	63.27
Saskvalley Ramrod 155R	3	4.6	77	114	6	44	5	17	-0.31	7	0.12	-0.28	-0.10	1.55	116.78	61.67
SULL Red Reward 9321	15	-2.4	46	63	19	42	4	6	-0.46	-26	0.07	-0.15	-0.12	51.54	131.11	48.96
SULL RGLC Legacy 525	7	1.1	60	88	15	45	0	7	-0.45	-16	0.22	-0.14	-0.11	21.35	119.54	55.73
Waukaru Gold Band 5061	21	-2.2	54	83	27	54	18	18	-0.30	15	0.28	0.31	-0.10	69.29	171.43	59.73
Waukaru Gold Card 1010	17	-0.2	64	107	24	56	10	16	-0.42	13	0.36	-0.11	-0.13	50.09	150.31	60.22