USING GTS IN SIRE SELECTION

Using GTS in Sire Selection

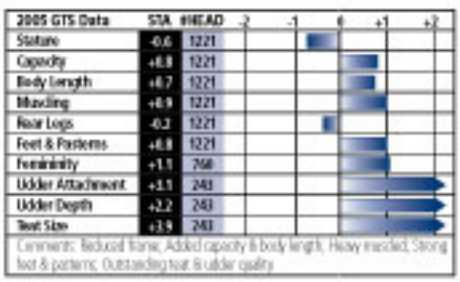
GTS ALLOWS BREEDERS TO MAKE THE MOST INFORMED BREEDING DECISIONS IN THE INDUSTRY.

The ABS GTS (Genetic Type Summary) program accurately and objectively describes physical trait differences for individual sires' progeny. By using the STAs (Standardized Transmitting Abilities) beef breeders can anticipate the type, or physical characteristics, that a bull will transmit to his offspring. STAs for each trait are calculated using herdmate comparisons on large numbers of a sire's progeny using a linear evaluation system.

These linear proofs are computed using statistical procedures similar to those used to calculate EPDs. STAs indicate how bulls compare for each trait included in the evaluation.

STAs also allow breeders to determine where a bull ranks within a given population for each trait. A bull with an STA of 0.0 is average for that trait, compared to all other bulls evaluated. For any given trait, the majority of the STAs on all bulls evaluated will be near 0.0. In fact, approximately 68 percent of the sires' STAs should fall between -1.0 and +1.0 with over 99 percent between -3.0 and +3.0. Keep in mind that the population dealt within these GTS analyses is not the entire breed, but a relatively select group of animals that are predominantly A.I. sired.

This chart illustrates the STA range and the description of the traits relative to the STAs. It also shows the percentage of the bull population that scores in that STA range.



READING THE INFORMATION INDIVIDUAL SIRES

For example, 29AN1413 EXT's STA for muscle is +0.9. This indicates that he sires progeny that are heavier muscled than nearly 84% of the sires evaluated, as can be seen by referring back to the GTS Distribution Range chart.

The number of progeny evaluated is provided in the GTS charts to give breeders an estimate of the reliability of the STAs. The higher the number of progeny evaluated, the greater the reliability of the STAs. For some sires, a Pedigree Estimate (PE) will be given. This indicates that the bull's STAs are based on the STAs of his sire and maternal grandsire, not his progeny.

GENETIC TYPE SUMMARY

An objective linear evaluation of a bull's transmitting ability for various physical traits.

GTS describes differences between bulls' progeny and does not attempt to classify cattle based on an ideal animal.

STA (Standard Transmitting Ability) - A standardized measure of a sire's transmitting ability for a given trait.

STAs indicate how bulls compare, or relate to each other, for each trait included in the evaluation.

Page	Bull Code Number & Name		Stature ST	Femininity FE	Capacity CA	Body Length BL	Muscle MU	Rear Legs RL	Feet/Pasterns FP	Udder Attach UA	Udder Depth UD	Teat Size TS	Body Traits	Femininity	Udder Traits	Herds
													Progeny #s			
ANGUS																
18	29AN1523	NEW DESIGN 878	+0.2	-0.4	+0.1	-0.1	+0.8	-1.2	+0.3	+0.2	+0.6	+0.0	310	158	85	41
24	29AN1530	POWER DESIGN	+0.0	-1.2	+0.9	-0.6	+0.3	-1.9	+0.3	+0.6	+0.7	+0.7	56	13	PE	3
25	29AN1543	STRATEGY	-0.1	+1.5	-0.3	+0.5	-1.3	+1.0	-0.2	+0.9	+0.4	-0.2	72	40	PE	10
20	29AN1551	DESTINATION 928	+0.8	-1.3	-0.8	+1.2	-0.3	-0.1	+0.2	+0.0	+0.0	-0.5	56	49	15	13
20	29AN1556	LEAD ON	+0.0	+0.1	+0.1	+0.2	+1.0	+0.0	+0.7	+0.4	+1.5	+1.0	173	95	38	29
20	29AN1574	OBJECTIVE	-0.3	+1.6	+1.2	-0.8	+0.6	+1.3	+1.3				85	37		9
	29AN1577	EXTRA H6	-1.0	+0.3	+0.3	-0.1	-0.2	-0.3	+0.6	+1.5	+1.2	+2.6	69	36	47	8
22	29AN1589	FORESIGHT	-1.0	-1.0	+1.2	-1.5	+1.1	-1.0	+1.6	+0.7	-0.2	+1.0	132	90	13	9
22	29AN1593	NEW DESIGN 9150	+1.1	+2.7	-2.5	+1.9	-1.4	+2.7	-1.3	+1.7	+1.5	+1.3	81	78	23	7
22	29AN1616	NEW LEVEL	+0.9	+2.3	-0.5	+0.8	+0.0	+2.9	-2.9	+0.8	+0.0	-0.3	144	88	40	19
23	29AN1618	PRIME CUT 0145	-1.2	+1.1	+0.5	-1.9	+0.7	-0.1	-1.0	-0.1	-0.1	+0.7	45	29	11	7
23	29AN1619	MORGANS DIRECTION	-1.4	-0.7	-1.8	-1.1	+1.0	-3.0	-0.3	+0.1	+0.5	+0.8	77	10	PE	5
	29AN1621	COALITION	+0.4	-0.7	+0.7	+0.4	-0.2	+0.6	+0.7	+1.5	+0.6	+1.2	60	10	PE	10
15	29AN1623	ALLIANCE 187	-1.3	+0.0	+2.5	-2.4	+2.3	+0.1	-0.8	+1.8	+0.9	+1.8	87	58	PE	6
18	29AN1624	BANDO 0699	+0.8	+1.1	+0.2	+1.2	+0.8	-1.2	+0.4	+0.3	-0.1	+0.6	20	10	PE	5
03	29AN1627	CONNECTION X15	+0.5	+0.2	-0.6	+0.4	+0.2	-1.7	+2.0	-0.7	+0.2	+0.1	15	15	PE	1
	29AN1629	AUTHORITY	-0.3	-0.4	-0.1	-0.6	-0.3	-0.1	+0.0	+0.2	+0.3	+0.0	PE	PE	PE	
11	29AN1640	IN FOCUS	-1.1	-2.3	+2.6	-1.6	+1.2	-0.8	+1.0	+1.1	+0.6	+0.0	111	94	PE	16
10	29AN1648	INITIATIVE	-0.1	+0.4	+0.3	+0.1	+0.4	-0.7	-0.3				PE	PE	PE	0
14	29AN1677	PROTEGE	-0.5	-0.3	+0.9	-0.8	+0.7	-1.0	+0.5				PE	PE	PE	0
13	29AN1679	NEW DESIGN 458N	-0.3	-0.5	+0.3	-0.4	-0.1	+0.0	-0.1	+0.8	+0.7	+0.3	PE	PE	PE	1
19	237AN1673	BOYD ON TARGET	-0.3	+0.2	+1.3	-0.1	+1.1	+0.4	+0.0	+1.0	+0.7	+0.8	68	38	16	5
25	237AN1680	DIRECTIVE	+0.2	+0.9	+0.3	+0.1	+0.6	-0.1	+0.2	+0.4	+0.1	+0.5	25	25	PE	2
17	237AN1842	CE DELUXE	-0.1	-0.3	+1.0	-0.4	+0.7	-0.2	+0.2	+1.0	+0.5	+0.8	PE	PE	PE	
12	237AN1847	CORONA	-0.4	-1.0	+0.5	-0.7	+0.9	-0.2	+0.3	+0.2	+0.3	+0.0	14	14	PE	2
RED ANGUS																
34	29AR0183	ABOVE & BEYOND	-0.3	+2.3	-0.8	+1.7	-0.3	+0.9	-1.8	-0.1	+0.0	-0.1	55	38	20	2
35	29AR0196	CHEYENNE	-0.3	-0.4	+0.1	+1.3	+0.3	-1.3	+1.4	+0.6	+0.4	+0.0	48	30	PE	5
32	29AR0199	ROMEO	-0.8	-2.7	+1.4	-0.8	-1.2	-0.4	-0.4	-0.8	-0.4	-0.2	74	71	17	5
34	29AR0200	VAQUERO	+0.3	+0.0	-0.1	+0.7	+0.3	-0.2	+0.0				PE	PE	PE	2
32	29AR0201	COMBINATION	+1.3	-0.1	-0.9	+1.6	-0.2	-1.5	+0.0				30	25		3
33	29AR0218	NORSEMAN KING	+0.0	+1.6	-0.4	+0.2	-0.3	-0.5	+0.4				18	18		1

 # Head (Progeny Number) - Provides a measure of accuracy by indicating the number of a bull's progeny that have been evaluated for a given trait.

Stature - Evaluation of progeny frame size, based on hip height. Higher STA indicates taller size.

Capacity - Progeny evaluation combines depth of fore rib along with spring of rib and width of chest floor as well as depth of flank. Higher STA indicates larger capacity.

Body Length - Evaluation of progeny length from withers to pins. Higher STA indicates longer body length.

Muscling - Progeny evaluation combines width of rump and hindquarter, with secondary consideration given to forearm muscling. Higher STA indicates more muscling.

Rear Leg Set - Evaluation of progeny rear leg structure, with STAs near 0 being ideal. Higher STAs tend towards sickle hocked; lower STAs tend towards posty.

Feet and Pasterns - Evaluation of progeny length and strength of pastern and foot angle. Higher STA indicates stronger pastern with more depth of heel.

Femininity - Evaluation of daughters' angularity and their ability to carry condition without becoming coarse and masculine. Higher STA indicates more femininity.

Udder Attachment - Daughter evaluation combines fore udder attachment, rear udder height, rear udder width, and center support. Higher STA indicates stronger attachment.

Udder Depth - Evaluation of daughters' udder depth from top of fore udder to udder floor. Higher STA indicates higher, better supported udders.

Teat Size - Evaluation of daughters' teat size, including length and diameter. Higher STA indicates smaller teat size.