Neogen US Genomics
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Igenity® Beef Profile

Customer Information

Customer Name: UGA HERD Program
Customer Address: 1282 Highway 53 Spur Sw Calhoun GA 30701-7635 US
Customer Phone: [redacted]
Customer Email: jduggin@uga.edu
End Customer ID: [redacted]

Order Information

Igenity Order ID: [redacted]
Order ID:
Report Date:
Order Date:
Order Completion Date:

Thank you for using Neogen for your genomic testing needs.

Your results are contained in the following pages.
Please be sure to check the "Animals Not Reported" page to see if any action is required of you.
Please don't hesitate to contact us if you have any questions or concerns regarding your order.

Results Authorized By:

Terms and Conditions

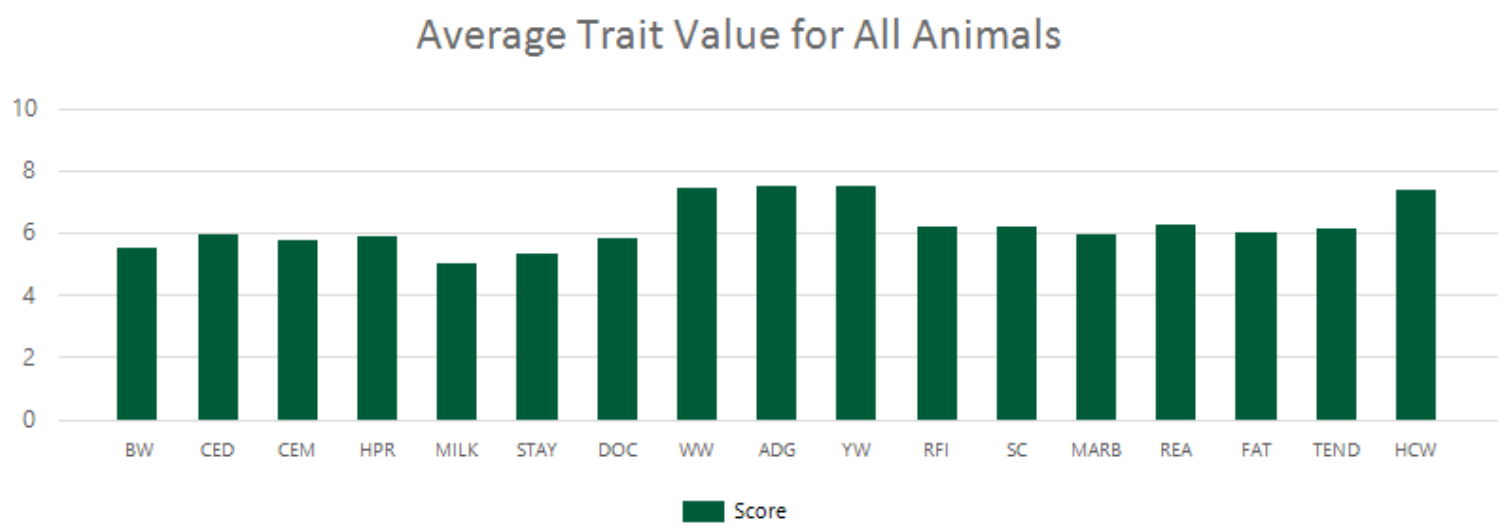
Detailed Report

Animal Information		Decision Indexes			Maternal							Production					Carcass				
Animal ID	Sample Barcode	Igenity Maternal Index	Igenity Production Index	Igenity Terminal Index	BW	CED	CEM	HPR	MILK	STAY	DOC	WW	ADG	YW	RFI	SC	MARB	REA	FAT	TEND	HCW
20	991	5.85	5.9	5.95	5	6	6	5	6	5	4	8	7	7	7	6	7	6	6	9	6
21	992	6.3	6.55	6.65	6	6	7	5	5	6	8	9	9	9	7	7	6	7	6	9	8
22	993	5.65	5.35	5.45	4	7	7	2	7	5	5	7	7	7	6	4	4	6	5	6	6
23	994	6.25	5.95	5.1	2	8	5	4	6	8	7	6	6	6	4	5	4	7	6	9	4
24	995	6.15	5.2	4.9	5	6	6	5	5	6	7	8	7	7	5	7	4	4	6	6	5
25	996	6.8	5.7	5.75	5	8	7	7	7	5	7	8	10	9	5	9	6	6	6	3	6
26	997	6.6	6.1	5.95	5	5	6	6	7	7	5	8	8	8	5	7	6	4	6	3	7
27	998	5.5	6.35	6.15	6	5	5	5	4	7	4	6	5	6	6	6	7	6	7	4	7
28	999	6.55	7	6.2	5	7	7	6	5	8	6	6	6	6	5	7	8	6	7	6	6
29	1000	5.85	6.05	6.2	5	7	6	5	4	6	7	7	6	6	6	6	6	6	5	5	7
30	981	5.3	4.95	5.95	7	4	4	6	5	3	8	8	9	8	4	6	5	4	7	6	7
31	982	5.6	5.6	6.05	9	4	5	7	4	5	3	7	6	6	5	5	6	6	4	5	6
32	983	5.5	6.15	6.55	8	5	4	6	3	6	4	8	8	8	7	7	7	5	6	7	8
33	984	5.25	5.5	6.45	6	4	2	7	5	5	8	7	7	7	5	4	4	6	6	9	8
34	985	6	5.25	5.15	5	5	4	6	7	7	6	6	5	6	4	5	3	6	4	4	5
35	986	5.9	5.95	6.8	10	4	4	8	3	5	5	9	9	9	5	6	6	7	5	4	8
36	987	4.5	5.35	5.9	7	4	4	4	6	4	5	5	6	6	6	4	7	6	6	5	6
37	988	5.4	5.95	6.45	6	5	6	4	7	5	7	6	7	7	6	7	5	8	4	8	7
38	989	5.65	6.1	6.7	7	5	6	5	6	5	6	7	7	7	6	6	5	8	5	7	8
39	990	6.3	6.25	6.15	7	6	7	7	6	6	6	7	7	7	7	7	6	7	6	7	7
40	1001	6	5	5.7	6	7	8	8	7	2	7	5	6	5	3	3	5	4	7	6	6
41	1002	5.05	4.8	5.65	7	5	3	6	3	4	4	8	7	7	6	5	4	6	6	4	7
42	1003	5.45	5.95	6.65	6	6	5	4	5	6	4	5	5	6	3	5	3	9	2	5	7
43	1004	4.4	5.6	6.85	9	1	1	5	6	5	6	7	8	8	7	5	5	7	5	7	9
44	1005	6.35	5.85	6.1	4	5	5	6	5	6	4	9	8	8	4	6	5	6	6	3	7
45	1006	6	5.85	5.25	3	7	7	5	6	7	4	6	5	6	8	5	6	5	6	4	6
46	1007	6.4	6	5.95	5	6	6	6	6	7	5	9	8	9	9	7	5	5	5	7	8

Detailed Report

Animal Information		Decision Indexes			Maternal							Production					Carcass				
Animal ID	Sample Barcode	Igenity Maternal Index	Igenity Production Index	Igenity Terminal Index	BW	CED	CEM	HPR	MILK	STAY	DOC	WW	ADG	YW	RFI	SC	MARB	REA	FAT	TEND	HCW
47	961	6.35	5.55	5	2	8	6	5	9	7	5	6	6	6	7	5	5	5	5	6	5
48	1008	5.95	5.7	5.85	4	4	4	5	6	7	5	8	6	7	5	6	3	7	5	5	7
49	1009	5.05	5.55	6.3	6	4	6	7	3	3	6	7	7	7	7	8	7	7	6	6	7
50	1010	6	6.55	7.05	5	7	8	8	5	4	6	7	8	8	9	7	8	8	7	7	9
51	1011	5.75	6.5	6.95	6	6	6	7	2	5	5	8	7	7	7	4	7	8	8	5	9
52	1012	4.75	5.7	7.25	5	5	3	6	3	3	7	8	8	8	7	4	6	8	7	5	10
53	1013	5.95	6.5	6.1	4	6	7	6	3	7	7	7	7	7	8	5	7	4	8	7	8
54	1014	5.85	6.8	7.9	7	5	5	6	2	5	6	9	10	10	4	10	6	8	6	7	10
55	1015	6.3	7.15	7.15	3	8	8	6	2	6	8	8	9	9	7	10	8	8	8	5	9
56	1016	6.45	6.95	7.05	3	8	8	5	5	6	4	7	9	9	5	5	6	8	6	9	8
57	1017	7.4	6.85	7.3	5	9	8	10	4	5	8	10	10	10	7	8	7	7	8	6	10
66	1026	5.9	6.3	7.25	6	7	5	7	5	4	7	8	9	9	6	6	7	6	7	10	9
72	1029	5.15	5.65	7.4	5	6	5	6	5	1	7	9	10	9	7	7	8	7	8	4	10
75	1032	7.05	6.9	7.35	4	10	8	7	6	5	8	10	10	10	9	9	8	7	7	7	10
79	1036	6.4	6.95	7.75	7	5	6	8	5	5	7	10	10	10	8	8	8	8	6	8	10
88	1041	5.8	5.8	5.5	5	8	8	6	4	5	6	6	7	6	8	5	7	6	7	5	6
89	1051	5.8	6.55	6.85	6	6	6	6	4	6	6	7	8	7	7	6	7	7	5	7	8
90	1052	6.6	6.65	6.85	8	6	7	7	5	6	4	9	9	9	7	9	7	6	5	9	8
91	1053	4.9	6.2	7.45	6	6	5	5	2	3	7	8	9	8	7	5	8	6	8	7	10
95	1058	6.05	5.6	4.45	5	7	7	4	6	8	3	6	6	6	8	8	5	4	7	4	5
96	1059	6	5.2	5.4	4	8	8	6	8	3	7	6	6	6	6	7	7	4	6	7	5

Igenity® Insights



	Maternal							*Production*					*Carcass*				
	BW	**CED**	**CEM**	**HPR**	**MILK**	**STAY**	**DOC**	**WW**	**ADG**	**YW**	**RFI**	**SC**	**MARB**	**REA**	**FAT**	**TEND**	**HCW**
Overall Average	5.5	6.0	5.8	5.9	5.0	5.3	5.9	7.4	7.5	7.5	6.2	6.2	6.0	6.3	6.0	6.1	7.4

Additional Result Tests

Animal Information				Screening	
Animal ID Number	Sample Barcode Number	Gender (M/F)	Breed	Igenity Total Cow Index	Envigor Score
55	1015			5.51	1
28	999			5.72	1
56	1016			5.93	3
79	1036			5.59	1
75	1032			6.14	1
57	1017			6.44	1
54	1014			5.57	4
90	1052			6.36	5
21	992			5.96	4
50	1010			5.55	3
89	1051			5.38	3
51	1011			5.04	1
53	1013			5.21	1
27	998			4.98	2
66	1026			5.17	1
39	990			6.26	6
91	1053			4.32	1
32	983			5.28	4
26	997			6.36	5
38	989			6	8
29	1000			5.42	3
46	1007			6.19	5
23	994			6.36	7
35	986			5.92	6
37	988			5.49	6
42	1003			5.38	5
20	991			5.27	2
44	1005			6.15	5
45	1006			5.85	5

Additional Result Tests

Animal Information				*Screening*	
Animal ID Number	Sample Barcode Number	Gender (M/F)	Breed	Igenity Total Cow Index	Envigor Score
88	1041			5.53	4
25	996			6.38	4
48	1008			5.81	5
52	1012			4.19	1
72	1029			4.53	1
31	982			5.66	6
43	1004			4.79	7
95	1058			6.04	6
47	961			6.15	5
49	1009			4.74	3
33	984			5.21	5
22	993			5.7	6
36	987			4.43	4
34	985			6.15	7
24	995			5.98	5
96	1059			5.55	3
40	1001			5.85	5
30	981			5.11	4
41	1002			5.19	6

Trait Definitions

Igenity Maternal Index (IMI)	This index is highly maternal and designed to select replacement heifers for fertility, longevity and higher weaned calf weight. It is a tool developed for producers who sell calves at weaning or after a short backgrounding period.	**Docility (DOC)**	Genetic potential to be calm or have calm offspring. Higher scores indicate a higher probability of acceptable disposition.
Igenity Production Index (IPI)	The Igenity Production Index is well balanced for maternal, production and carcass progeny traits. It is designed for producers who raise their own heifers and want broad improvement across multiple traits.	**Weaning Weight (WW)**	Difference in average 205-day weight. The higher the number, the greater the weaning weight of calves.
Igenity Terminal Index (ITI)	The Igenity Terminal index is specialized to identify animals with superior carcass performance. It places the highest emphasis on hot carcass weight, followed by marbling and rib eye area. There is, however, a negative emphasis placed on residual feed intake and fat thickness to control feed costs.	**Average Daily Gain (ADG)**	Based on pounds of gain per day. The Igenity score for Average Daily Gain (ADG) identifies genetic potential for post-weaning growth.
Birth Weight (BW)	Higher scores equate to higher birthweight potential. Heavy calves can cause calving difficulty but also have more growth potential. (CED or CEM in selection indexes are preferred over BW alone).	**Yearling Weight (YW)**	Difference in average 365-day weight. The higher the number, the greater the yearling weight.
Calving Ease Direct (CED)	Greater probability a calf will be born unassisted out of a first-calf heifer, including birth weight and shape of the calf. A higher value is greater calving ease.	**Residual Feed Intake (RFI)**	This is an indicator of feed efficiency. It is the difference in animals' daily consumption of feed to achieve the same level of daily gain. Lower RFI indicates greater feed efficiency.
Calving Ease Maternal (CEM)	Includes all genetic factors that impact a first-calf heifer's ability to calve unassisted, such as pelvic area and her genetics for birth weight. Higher value is more calving ease.	**Scrotal Circumference (SC)**	Difference in scrotal size as an indication of fertility in replacement females. A higher score equates to higher scrotal size.
Heifer Pregnancy Rate (HPR)	A heifer's potential to conceive during breeding season, relative to other heifers. A higher value is desired.	**Marbling (MARB)**	USDA marbling score at a similar end-point. The higher the marbling, the higher the USDA quality grade.
MILK	Pounds of calf weaning weight due to dam's milk production. Optimize "milk" to the forage environment.	**Ribeye Area (REA)**	Ribeye area as measured on a carcass. REA estimates muscling in a beef carcass in square inches of ribeye at the 12th rib. Larger REA progeny have more muscle and higher percentage of retail product.
Stayability (STAY)	The chance a heifer will remain in the herd as a productive cow until at least six years of age. A higher value is desired.	**FAT**	Backfat as measured on a carcass. Fat thickness is scored as depth of fat in inches over the ribeye muscle at the 12th rib. Higher fat thickness scores equate to lower lean yield.
Hot Carcass Weight (HCW)	Unchilled weight of a beef carcass. The higher the HCW, the greater the dressing percentage.	**Tenderness (TEND)**	Genetic potential for beef tenderness (Warner-Bratzler Shear Force). A higher 1-10 score is more tender.

Add-On Result Definitions

BreedSeek	BreedSeek identifies breed-specific markers present in individual animals to determine which breeds have the highest representation in that specific animal. BreedSeek reports breed composition for Primary and Secondary breeds of origin and %. BreedSeek accurately reports breed composition for the following breeds: **Angus, Akaushi, Ayrshire, Brahman, Brown Swiss, Charolais, Gelbvieh, Guernsey, Gyr, Jersey, Limousin, Hereford, Holstein, Piedmontese, Nelore, Red Angus, Shorthorn, Simmental, South Devon, and Wagyu** *BreedSeek does not report, Secondary Breed of Origin, Secondary Breed % or Other Breed %, if Primary Breed is or above 90%

Horned Polled (HP)	Polled is a dominant trait. (Results do not reveal the presence or absence of scurs.) **HH = Homozygous Horned** **HP = Heterozygous Horned/Polled** **PP = Homozygous Polled.**	**BCHF EPD**	The estimated genetic risk of Bovine Congestive Heart Failure (BCHF) that an animal may pass on to its offspring is expressed as the percentage of progeny expected to be at risk of developing BCHF, compared to their contemporary group mates. A lower score is more favorable, indicating that the animal is less likely to contribute to BCHF risk in future generations
Coat Color (CC)	Coat color genes determine red or black coat. Black is the dominant trait. Results are reported as: **Yes = Homozygous Black** – all progeny will be black when mated to recessive red carrier animals. **No = Not Homozygous Black** – ½ progeny will be black and ½ will be red when mated to recessive red carrier animals.	**BCHF Accuracy**	Accuracy score reflects the confidence level in the EPD estimate. Ranging from 0 to 1, a higher values indicating greater reliability
Igenity Total Cow Index	As a combination of the IMI and Envigor scores, the ITCI is designed to select females that will not only excel because of increased heterosis and genetic potential, but also pass that same genetic potential on to their progeny.	**BCHF Percentile Rank**	The BCHF Percentile Rank is reported on a 1-100 scale, ranking animals against all cattle tested based on their BCHF EPD results. A lower percentile rank is more favorable.
Envigor Score	While not heritable, an Envigor score is a measure of heterosis in a crossbred animal. Higher value is an indication of increased hybrid vigor, thus increased fertility, longevity, and less susceptibility to health events.		