

Sire Proof Interpretation Table for Linear Type Traits - August 2022 -

Linear type traits play an important role in the genetic improvement of your herd. Bull proofs for these traits should therefore be considered during selection. To aid in the understanding of sire proofs for type traits and their relationship with the expected average daughter classification scores in first lactation, Lactanet created interpretation tables for all seven breeds. The updated tables for August 2022 tables can be found below.

Key Points to Remember:

- Genetic evaluations for type traits typically range from -15 to +15
- Type traits with an intermediate optimum are published with a letter code
- “Average for Proof=0” column is the calculated average linear score of daughters in first lactation for a sire with a proof of zero (the average bull for the breed)
- “Per 5-pt Proof Increase” column represents how much of an increase in daughter performance is expected on average when comparing daughters of two sires whose proofs differ by 5 points
- For traits with an actual measurement recorded during classification the interpretation in terms of the measure is below its linear trait and denoted by the units of measure following the trait name
- For proofs published with a letter code, a ‘proof increase’ is representative of movement in the direction of the descriptor of the higher linear score
- Knowledge of both where the breed population and the potential female mate stands is important for selecting the direction for selection for intermediate optimum traits and effectively using genetic evaluations for type traits in a breeding program
- Table values are averages and actual individual daughter scores in a herd may differ due many genetic and non-genetic factors

For more information on type trait evaluations and the interpretation tables, see our previous article [“Interpreting Sire Proofs for Linear Type Traits.”](#)

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**Sire Proof Interpretation Table for Linear Type Traits
- August 2022 -**

MAMMARY SYSTEM						
Linear Trait	Holstein		Jersey		Ayrshire	
	Average for Proof=0	Per 5-pt Proof Increase	Average for Proof=0	Per 5-pt Proof Increase	Average for Proof=0	Per 5-pt Proof Increase
Udder Floor	5.77	0.17	5.41	0.17	5.32	0.17
Udder Depth	5.48	0.46	4.96	0.45	5.01	0.40
Udder Depth (cm)	11.56	0.82	9.45	0.93	10.32	0.78
Udder Texture	5.75	0.30	5.65	0.33	5.23	0.34
Median Suspensory	6.45	0.25	5.86	0.30	5.79	0.35
Fore Attachment	5.15	0.46	5.46	0.50	5.09	0.40
Front Teat Placement	5.17	0.21	5.10	0.17	5.13	0.19
Rear Attachment Height	6.28	0.32	6.37	0.35	6.12	0.48
Rear Attachment Height (cm)	18.99	-0.63	17.36	-0.53	18.66	-0.69
Rear Attachment Width	6.01	0.26	6.25	0.32	5.74	0.36
Rear Attachment Width (cm)	15.32	0.44	14.84	0.49	13.61	0.55
Rear Teat Placement	6.44	0.21	5.96	0.21	6.23	0.27
Teat Length	4.35	0.33	5.52	0.24	4.74	0.34
Teat Length (cm)	4.08	0.21	4.27	0.17	4.02	0.15

FEET AND LEGS						
Linear Trait	Holstein		Jersey		Ayrshire	
	Average for Proof=0	Per 5-pt Proof Increase	Average for Proof=0	Per 5-pt Proof Increase	Average for Proof=0	Per 5-pt Proof Increase
Foot Angle	5.87	0.15	5.66	0.22	5.75	0.25
Heel Depth	5.53	0.12	5.50	0.22	5.18	0.21
Bone Quality	6.15	0.31	6.90	0.21	6.06	0.40
Rear Legs Side View	4.92	0.23	5.12	0.21	5.24	0.22
Rear Legs Rear View	5.41	0.22	6.13	0.31	5.37	0.31
Front Legs View	5.13	0.16	5.19	0.16	5.22	0.12
Locomotion	5.40	0.15			5.43	0.38

DAIRY STRENGTH						
Linear Trait	Holstein		Jersey		Ayrshire	
	Average for Proof=0	Per 5-pt Proof Increase	Average for Proof=0	Per 5-pt Proof Increase	Average for Proof=0	Per 5-pt Proof Increase
Stature	6.76	0.44	6.62	0.34	6.75	0.45
Stature (cm)	151.12	1.28	128.90	0.86	140.96	1.14
Height at Front End	4.99	0.20	5.42	0.20	4.96	0.17
Chest Width	5.01	0.21	4.94	0.22	4.94	0.17
Body Depth	6.02	0.29	6.15	0.21	5.75	0.22
Dairy Capacity	5.22	0.22	5.78	0.12	5.16	0.20

RUMP						
Linear Trait	Holstein		Jersey		Ayrshire	
	Average for Proof=0	Per 5-pt Proof Increase	Average for Proof=0	Per 5-pt Proof Increase	Average for Proof=0	Per 5-pt Proof Increase
Loin Strength	6.03	0.27	6.15	0.43	6.30	0.19
Rump Angle	4.66	0.36	5.18	0.37	5.26	0.32
Rump Angle (cm)	-4.07	-0.63	-4.15	-0.46	-5.12	-0.52
Pin Width	5.75	0.32	5.83	0.29	5.83	0.44
Pin Width (cm)	19.68	0.43	27.14	0.47	18.31	0.43
Thurl Placement	5.04	0.25	5.55	0.18	5.56	0.18

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MAMMARY SYSTEM								
Linear Trait	Brown Swiss		Guernsey		Canadienne		Milking Shorthorn	
	Average for Proof=0	Per 5-pt Proof Increase	Average for Proof=0	Per 5-pt Proof Increase	Average for Proof=0	Per 5-pt Proof Increase	Average for Proof=0	Per 5-pt Proof Increase
Udder Floor	5.34	0.17	5.53	0.24	4.72	0.35	5.27	0.10
Udder Depth	5.59	0.14	5.69	0.40	4.58	0.47	5.45	0.29
Udder Depth (cm)	10.85	0.74	10.31	1.15	8.50	0.91	10.29	1.21
Udder Texture	6.15	0.09	6.00	0.12	5.62	0.30	6.01	0.24
Median Suspensory	6.08	0.08	6.12	0.17	5.41	0.26	6.00	0.19
Fore Attachment	5.74	0.28	5.50	0.30	4.87	0.27	5.52	0.23
Front Teat Placement	5.32	0.21	4.81	0.25	4.57	0.24	4.65	0.31
Rear Attachment Height	5.77	0.25	6.42	0.42	5.59	0.48	5.86	0.28
Rear Attachment Height (cm)	21.61	-0.77	20.33	-0.83	20.99	-1.02	20.46	-0.79
Rear Attachment Width	5.61	0.30	5.18	0.28	5.01	0.68	5.40	0.42
Rear Attachment Width (cm)	14.11	0.54	12.70	0.64	12.24	1.00	13.08	0.62
Rear Teat Placement	5.99	0.26	5.91	0.20	5.41	0.17	5.84	0.24
Teat Length	4.66	0.21	4.88	0.34	5.76	0.27	4.58	0.32
Teat Length (cm)	4.09	0.23	4.23	0.24	4.49	0.28	4.26	0.20

FEET AND LEGS								
Linear Trait	Brown Swiss		Guernsey		Canadienne		Milking Shorthorn	
	Average for Proof=0	Per 5-pt Proof Increase	Average for Proof=0	Per 5-pt Proof Increase	Average for Proof=0	Per 5-pt Proof Increase	Average for Proof=0	Per 5-pt Proof Increase
Foot Angle	6.25	0.10	5.55	0.19	5.52	0.10	5.61	0.09
Heel Depth	6.15	0.06	5.46	0.16	5.25	0.10	5.62	0.15
Bone Quality	6.12	0.18	6.57	0.30	6.43	0.20	6.17	0.16
Rear Legs Side View	4.94	0.16	5.64	0.15	5.44	0.23	5.57	0.28
Rear Legs Rear View	6.05	0.23	5.63	0.25	5.48	0.35	5.50	0.34
Front Legs View	5.58	0.18	5.63	0.26	5.44	0.12	5.80	0.24
Locomotion	5.88	0.21	5.62	0.44	5.88	0.07	5.44	0.46

DAIRY STRENGTH								
Linear Trait	Brown Swiss		Guernsey		Canadienne		Milking Shorthorn	
	Average for Proof=0	Per 5-pt Proof Increase	Average for Proof=0	Per 5-pt Proof Increase	Average for Proof=0	Per 5-pt Proof Increase	Average for Proof=0	Per 5-pt Proof Increase
Stature	6.48	0.32	6.67	0.46	5.52	0.72	6.97	0.45
Stature (cm)	148.67	1.12	143.99	0.97	131.61	1.69	139.91	1.28
Height at Front End	4.54	0.22	5.12	0.16	5.15	0.19	5.16	0.20
Chest Width	5.84	0.08	5.75	0.25	5.61	0.21	5.77	0.10
Body Depth	5.62	0.20	6.19	0.21	5.49	0.22	5.63	0.28
Dairy Capacity	5.39	0.20	5.86	0.12	5.01	0.28	5.46	0.20

RUMP								
Linear Trait	Brown Swiss		Guernsey		Canadienne		Milking Shorthorn	
	Average for Proof=0	Per 5-pt Proof Increase	Average for Proof=0	Per 5-pt Proof Increase	Average for Proof=0	Per 5-pt Proof Increase	Average for Proof=0	Per 5-pt Proof Increase
Loin Strength	6.04	0.28	6.23	0.21	5.78	0.21	6.09	0.25
Rump Angle	5.31	0.24	5.52	0.33	4.92	0.27	5.36	0.34
Rump Angle (cm)	-5.67	-0.47	-4.49	-0.76	-5.14	-0.49	-4.89	-0.63
Pin Width	6.08	0.22	6.35	0.33	6.27	0.36	6.63	0.29
Pin Width (cm)	18.18	0.50	17.08	0.53	16.77	0.66	17.33	0.37
Thurl Placement	5.47	0.19	5.38	0.20	5.84	0.18	5.42	0.14