

Table S1 Number of Brown Swiss bulls for 56 economically important traits and their classification.

Trait type	Trait name	N of Animal	
		Swiss	Austrian-German
Milk production	Milk yield	1874	2497
	Fat yield	1874	2497
	Protein yield	1874	2497
	Fat percentage	1874	2497
	Protein percentage	1874	2497
Body Size	Stature	1875	2389
	Chest width	1873	2279
	Body Depth	1874	2389
	Angularity	1871	2381
	Rump length	1874	2181
	Rump width	1874	2387
	Rump angle	1874	2389
	Thurl position	1872	1443
	Backline	1864	2387
	Overall frame	1867	2182
	Overall rump	1850	1443
	Final conformation Score	1861	1414
Leg conformation	Hock angularity	1866	2389
	Hock development	1862	2387
	Foot angle	1850	2389
	Hoof height	1837	2386
	Overall leg conformation	1854	2382
Mammary gland morphology	Fore udder length	1865	2387
	Rear udder width	1863	2389
	Rear udder height	1865	2389
	Suspension ligament	1861	2389
	Udder depth	1872	2389
	Fore udder attachment	1866	1384
	Udder balance	1865	1341
	Teat length	1872	2389
	Teat thickness	1872	1369
	Teat placement (front)	1872	2156
	Teat placement (rear)	1871	NA
	Teat direction (rear)	1870	2387
	Udder cleanness	NA	2381
	Overall udder score	1861	2384

Table S1 Number of Brown Swiss bulls for 56 economically important traits and their classification (continued).

Trait type	Trait name	N of Animal	
		Swiss	Austrian-German
Fertility	Non-return rate (heifer)	1811	NA
	Non-return rate (cow)	1836	NA
	Interval from first to last insemination (heifer)	1801	NA
	Interval from first to last insemination (cow)	1820	NA
	Days to first service	1809	NA
Calving	Direct / maternal calving ease	1632 / 1532	2530/2526
	Direct / maternal birth weight	1639 / 1747	NA
	Direct / maternal gestation length	1768 / 1776	NA
	Direct live birth	1068	NA
Growth and carcass quality	Daily net gain	1470	2529
	Carcass percentage	NA	2460
	Carcass grading	1450 (CHATX)	2527 (EUROP)
	Daily net gain (calf)	1527	NA
	Carcass grading (calf)	1480 (CHATX)	NA
	Milking speed	1846	2517
	Longevity	1805	2529
	Persistency	1868	2530
	Somatic cell score	1861	2517