

Introduction

The latest routine international evaluation for udder traits took place as scheduled at the Interbull Centre. Data from thirty-three (33) countries were included in this evaluation.

International genetic evaluations for udder health traits of bulls from Australia, Austria-Germany, Belgium, Canada, Croatia, Czech Republic, Denmark-Finland-Sweden, Estonia, France, Hungary, Ireland, Israel, Italy, Japan, Netherlands, New Zealand, Norway, South Africa, Slovak Republic, Spain, Switzerland, the United Kingdom, the United States of America, Poland, Lithuania, Latvia, Croatia, Slovenia, Portugal and Uruguay were computed. Brown Swiss, Holstein, Red Dairy Cattle, Guernsey, Jersey and Simmental breed data were included in this evaluation.

Countries sending real MAS data (other countries participate to the MAS evaluation using SCS data as predictor):

HOL : DFS, NLD, FRA, CAN, ITA, CHE, USA
RDC : DFS, NLD, CAN
BSW : NLD, FRA, CHE
JER : DFS, NLD, CAN
SIM : NLD, CHE
GUE : No evaluation for MAS yet

Changes in national procedures

Changes in the national genetic evaluation of udder health traits are as follows:

DFS (ALL)	Decrease in information for Swedish bulls. Sweden has stated to check if the herds participate in disease recording or not
ITA (SIM)	Base change
ITA (HOL)	Base change, editing and pedigree checks
ITA (BSW)	Base change
BEL (HOL)	Up to 21 bulls missing in current data most of them are Montbeliard bulls erroneously added before due to a bug in one of the programs preparing the file to be submitted. which has now been fixed.
FRA (ALL)	Base change
CAN (ALL)	Base change
SVN (ALL)	Base change
EST (ALL)	Correction in type of proof
AUS (ALL)	New database and procedures for data extraction. Mix99 software will be used for all traits. EBV expression is on the observable scale for a trait into consideration, (kg, days, log(scc), type scores, etc). Drop in reliabilities. The genetic parameters for all traits remain the same.
CHE (HOL,BSW,SIM)	Participating with real MAS data coming from a new genetic evaluation based on producer recorder diagnosis data and milk recording data.
USA (HOL)	First time with real MAS data
NZL (ALL)	NZL has continuous DNA parentage testing so daughters, herds, EDC will always change. Small decrease in Reliability as consequence.

INTERBULL CHANGES COMPARED TO THE DECEMBER ROUTINE RUN

Subsetting:

As decided by the ITC in Orlando, new subsetting was introduced in the september test run. Sub-setting is necessary for operational purposes and restrictions of time scales. To minimize the effect of subsetting, larger subsets with 10-12 countries and with 4 link providing countries have been applied.

Window:

According to the decision taken by ITC in Orlando, the following changes have been introduced in regards to the windows used for post processing:

The upper bounds have been set to 0.99 as these were judged to have very little effect on evaluations. The lower values have been set to about the 25% percentile value. The largest changes are for the lower values for conformation traits, with the lowest window being 40% for OFL otherwise it is about 50% for all other confirmation traits. It is anticipated that these low values may not have large impact on evaluations since there were very few countries combinations whose estimated correlations fell between the old limit of 0.30 and these new limits. DATA AND METHOD OF ANALYSIS

Data were national genetic evaluations of AI sampled bulls with at least 10 daughters or 10 EDC (for clinical mastitis and maternal calving traits at least 50 daughters or 50 EDC, and for direct calving traits at least 50 calvings or 50 EDC) in at least 10 herds. Table 1 presents the amount of data included in this Interbull evaluation for all breeds.

National proofs were first de-regressed within country and then analysed jointly with a linear model including the effects of evaluation country, genetic group of bull and bull merit. Heritability estimates used in both the de-regression and international evaluation were as in each country's national evaluation.

Table 2 presents the date of evaluation as supplied by each country

Estimated genetic parameters and sire standard deviations are shown in APPENDIX I and the corresponding number of common bulls are listed in APPENDIX II.

SCIENTIFIC LITERATURE

The international genetic evaluation procedure is based on international work described in the following scientific publications:

International genetic evaluation computation:
Schaeffer. 1994. J. Dairy Sci. 77:2671-2678
Klei, 1998. Interbull Bulletin 17:3-7

Verification and Genetic trend validation:
Klei et al., 2002. Interbull Bulletin 29:178-182.
Boichard et al., 1995. J. Dairy Sci. 78:431-437

Weighting factors:
Fikse and Banos, 2001. J. Dairy Sci. 84:1759-1767

De-regression:
Sigurdsson and G. Banos. 1995. Acta Agric. Scand. 45:207-219
Jairath et al. 1998. J. Dairy Sci. Vol. 81:550-562

Genetic parameter estimation:
Klei and Weigel, 1998, Interbull Bulletin 17:8-14
Sullivan, 1999. Interbull Bulletin 22:146-148

Post-processing of estimated genetic correlations:
Mark et al., 2003, Interbull Bulletin 30:126-135
Jorjani et al., 2003. J. Dairy Sci. 86:677-679
<https://wiki.interbull.org/public/rG%20procedure?action=print>

Time edits
Weigel and Banos. 1997. J. Dairy Sci. 80:3425-3430

International reliability estimation
Harris and Johnson. 1998. Interbull Bulletin 17:31-36

 Dates for the next routine evaluation can be found on
<http://www.interbull.org/ib/servicecalendar>.

NEXT TEST INTERNATIONAL EVALUATION

 Dates for the next test run can be found on
<http://www.interbull.org/ib/servicecalendar>.
 PUBLICATION OF INTERBULL TEST RUN

Test evaluation results are meant for review purposes only and should not be published.

^LTable 1. National evaluation data considered in the Interbull evaluation for udder health (April Routine Evaluation 2019).
 Number of records for milk somatic cells by breed

Country	BSW	GUE	HOL	JER	RDC	SIM
AUS		133	7981	1600	721	
BEL			1988			
CAN	227	99	12457	738	806	
CHE	2933		3377	85		3227
CZE			3906			
DEA	5576					22285
DEU			27627		429	
DFS			13135	2131	7804	
ESP			3791			
EST			1129		425	
FRA	385		17054			458
FRM						4296
GBR	113	279	6641	688	505	83
HUN			2803			173
IRL			2473			
ISR			1421			
ITA	1905		9651			1493
JPN			6024			
KOR			1278			
LTU			807		435	
LVA			527		564	
NLD	194		15596	159	85	401
NOR					4158	
NZL	50	57	7676	4523	1307	
POL			10440			
PRT			2412			
SVK			1101			563
SVN	368		542			607
URY			1736			
USA	1067	697	38142	4526	674	58
ZAF			1183	577	123	
HRV			774			852
MEX						
CAM					38	
=====						
No. Records	12818	1265	203672	15027	18074	34496
Pub. Proofs	10415	983	154669	12366	17290	30897

^LAPPENDIX I. Sire standard deviations in diagonal and genetic correlations below diagonal

 BSW scs

	CAN	FRA	NLD	USA	CHE	DEA	NZL	ITA	GBR	SVN
CAN	6.08									
FRA	0.91	1.02								
NLD	0.89	0.92	3.69							
USA	0.89	0.91	0.88	0.21						
CHE	0.92	0.94	0.94	0.88	10.59					
DEA	0.92	0.96	0.92	0.88	0.97	11.92				
NZL	0.87	0.87	0.87	0.86	0.87	0.88	0.37			
ITA	0.89	0.90	0.89	0.89	0.95	0.91	0.87	16.77		
GBR	0.90	0.96	0.95	0.91	0.94	0.95	0.89	0.89	12.70	
SVN	0.89	0.89	0.89	0.89	0.89	0.89	0.88	0.89	0.89	10.48

BSW mas

	CAN	FRA	NLD	USA	CHE	DEA	NZL	ITA	GBR	SVN
CAN	6.07									
FRA	0.92	1.07								
NLD	0.89	0.88	3.80							
USA	0.88	0.88	0.88	0.21						
CHE	0.92	0.90	0.91	0.90	12.45					
DEA	0.93	0.87	0.89	0.88	0.91	11.92				
NZL	0.90	0.89	0.89	0.87	0.91	0.87	0.37			
ITA	0.89	0.88	0.89	0.88	0.90	0.91	0.87	16.77		
GBR	0.89	0.89	0.88	0.89	0.92	0.90	0.89	0.89	2.86	
SVN	0.89	0.89	0.89	0.89	0.90	0.89	0.88	0.89	0.89	10.48

GUE scs

	CAN	GBR	USA	AUS	NZL
CAN	5.96				
GBR	0.89	13.63			
USA	0.89	0.90	0.25		
AUS	0.88	0.92	0.86	0.27	
NZL	0.87	0.89	0.86	0.95	0.63

HOL scs

	CAN	CHE	DEU	DFS	EST	FRA	GBR	NLD	USA	ISR	ITA	AUS	HUN	BEL	JPN	ESP	ZAF	NZL	IRL	CZE	SVK	POL	LTU	LVA	PRT	KOR	SVN	HRV	URY
CAN	5.78																												
CHE	0.89	10.98																											
DEU	0.93	0.94	12.67																										
DFS	0.92	0.93	0.96	11.85																									
EST	0.88	0.89	0.94	0.92	13.45																								
FRA	0.94	0.93	0.95	0.97	0.91	1.19																							
GBR	0.94	0.94	0.95	0.94	0.90	0.96	12.77																						
NLD	0.91	0.94	0.95	0.94	0.91	0.94	0.96	4.20																					
USA	0.94	0.88	0.89	0.88	0.90	0.90	0.90	0.88	0.21																				
ISR	0.85	0.85	0.85	0.84	0.86	0.85	0.84	0.83	0.88	0.24																			
ITA	0.90	0.89	0.94	0.92	0.93	0.93	0.90	0.88	0.89	0.85	5.81																		
AUS	0.86	0.91	0.88	0.88	0.86	0.89	0.93	0.91	0.86	0.84	0.86	0.29																	
HUN	0.88	0.90	0.92	0.90	0.91	0.91	0.89	0.88	0.92	0.88	0.93	0.86	1.43																
BEL	0.91	0.93	0.96	0.96	0.95	0.95	0.94	0.94	0.89	0.84	0.94	0.86	0.92	0.52															
JPN	0.88	0.88	0.88	0.89	0.87	0.90	0.88	0.88	0.88	0.83	0.88	0.86	0.88	0.88	0.42														
ESP	0.92	0.91	0.95	0.94	0.94	0.96	0.93	0.91	0.91	0.88	0.95	0.86	0.93	0.96	0.88	11.54													
ZAF	0.90	0.89	0.92	0.90	0.89	0.93	0.92	0.89	0.89	0.87	0.92	0.88	0.91	0.91	0.88	0.95	26.47												
NZL	0.86	0.86	0.86	0.86	0.86	0.86	0.89	0.86	0.86	0.83	0.85	0.96	0.86	0.86	0.86	0.86	0.86	0.40											
IRL	0.88	0.93	0.93	0.93	0.90	0.93	0.95	0.93	0.86	0.83	0.88	0.95	0.86	0.93	0.86	0.92	0.91	0.92	0.11										
CZE	0.88	0.88	0.90	0.88	0.88	0.89	0.88	0.88	0.88	0.84	0.90	0.86	0.89	0.89	0.88	0.91	0.88	0.86	0.86	17.38									
SVK	0.88	0.89	0.91	0.89	0.88	0.90	0.88	0.88	0.88	0.84	0.90	0.86	0.95	0.91	0.88	0.91	0.88	0.86	0.86	0.88	0.42								
POL	0.89	0.92	0.95	0.95	0.94	0.93	0.91	0.91	0.88	0.85	0.94	0.86	0.94	0.96	0.88	0.95	0.90	0.86	0.89	0.90	0.91	10.02							
LTU	0.88	0.88	0.90	0.88	0.92	0.88	0.88	0.88	0.88	0.85	0.88	0.86	0.88	0.92	0.88	0.90	0.88	0.86	0.86	0.88	0.89	0.90	0.36						
LVA	0.88	0.89	0.94	0.92	0.94	0.90	0.90	0.89	0.88	0.82	0.92	0.87	0.88	0.94	0.88	0.89	0.88	0.86	0.90	0.88	0.87	0.93	0.92	0.48					
PRT	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.84	0.88	0.86	0.88	0.88	0.88	0.88	0.88	0.86	0.86	0.88	0.88	0.88	0.88	0.88	0.46				

RDC	scs													
	CAN	DFS	GBR	NOR	USA	DEU	AUS	EST	ZAF	NZL	LTU	LVA	NLD	CAM
CAN	5.60													
DFS	0.94	12.85												
GBR	0.93	0.92	11.38											
NOR	0.92	0.91	0.89	13.69										
USA	0.92	0.88	0.89	0.89	0.23									
DEU	0.93	0.95	0.95	0.90	0.89	13.62								
AUS	0.88	0.91	0.92	0.92	0.86	0.90	0.30							
EST	0.89	0.94	0.91	0.90	0.91	0.95	0.90	12.02						
ZAF	0.89	0.90	0.90	0.93	0.89	0.92	0.88	0.90	25.13					
NZL	0.88	0.88	0.89	0.90	0.86	0.87	0.95	0.88	0.87	0.41				
LTU	0.90	0.90	0.89	0.90	0.89	0.89	0.87	0.91	0.91	0.87	0.34			
LVA	0.90	0.89	0.90	0.90	0.89	0.93	0.89	0.96	0.89	0.88	0.90	0.44		
NLD	0.91	0.95	0.96	0.90	0.88	0.95	0.92	0.92	0.89	0.87	0.89	0.90	3.84	
CAM	0.94	0.94	0.94	0.93	0.90	0.94	0.93	0.94	0.93	0.91	0.93	0.93	0.94	5.63

RDC	mas													
	CAN	DFS	GBR	NOR	USA	DEU	AUS	EST	ZAF	NZL	LTU	LVA	NLD	CAM
CAN	7.66													
DFS	0.91	13.82												
GBR	0.88	0.88	1.96											
NOR	0.92	0.88	0.89	13.69										
USA	0.88	0.88	0.88	0.89	0.23									
DEU	0.88	0.87	0.89	0.90	0.88	13.62								
AUS	0.90	0.89	0.89	0.92	0.87	0.90	0.30							
EST	0.87	0.87	0.89	0.90	0.89	0.93	0.87	12.02						
ZAF	0.89	0.88	0.89	0.93	0.89	0.92	0.88	0.90	25.26					
NZL	0.88	0.88	0.89	0.90	0.86	0.87	0.95	0.87	0.87	0.41				
LTU	0.88	0.87	0.89	0.90	0.89	0.90	0.87	0.92	0.90	0.87	0.34			
LVA	0.88	0.86	0.89	0.90	0.89	0.94	0.89	0.95	0.88	0.88	0.91	0.44		
NLD	0.88	0.88	0.88	0.89	0.89	0.93	0.90	0.91	0.90	0.89	0.89	0.90	4.19	
CAM	0.93	0.93	0.93	0.93	0.90	0.94	0.93	0.94	0.93	0.92	0.93	0.94	0.94	5.63

SIM	scs											
	FRM	FRA	ITA	NLD	CHE	DEA	HUN	SVK	SVN	GBR	HRV	USA
FRM	1.09											
FRA	0.93	1.02										
ITA	0.94	0.90	13.54									
NLD	0.91	0.93	0.88	3.84								
CHE	0.93	0.93	0.90	0.93	10.47							
DEA	0.91	0.93	0.88	0.90	0.89	12.16						
HUN	0.93	0.91	0.93	0.88	0.90	0.94	16.24					
SVK	0.89	0.89	0.89	0.91	0.90	0.88	0.94	0.38				
SVN	0.90	0.89	0.89	0.89	0.90	0.88	0.90	0.89	8.89			
GBR	0.91	0.96	0.89	0.95	0.91	0.93	0.89	0.89	0.88	11.75		
HRV	0.93	0.88	0.88	0.88	0.89	0.88	0.89	0.89	0.89	0.88	9.87	
USA	0.89	0.90	0.89	0.88	0.89	0.90	0.92	0.89	0.89	0.90	0.88	0.22

SIM	mas											
	FRM	FRA	ITA	NLD	CHE	DEA	HUN	SVK	SVN	GBR	HRV	USA
FRM	1.08											
FRA	0.92	1.00										
ITA	0.95	0.88	13.54									
NLD	0.88	0.88	0.88	3.80								
CHE	0.93	0.92	0.91	0.93	11.61							
DEA	0.91	0.92	0.88	0.88	0.89	12.16						

HUN	0.93	0.88	0.91	0.91	0.92	0.93	16.24					
SVK	0.89	0.89	0.89	0.89	0.92	0.88	0.94	0.38				
SVN	0.90	0.89	0.89	0.88	0.90	0.88	0.90	0.89	8.89			
GBR	0.90	0.88	0.88	0.89	0.91	0.90	0.88	0.89	0.88	2.69		
HRV	0.92	0.88	0.88	0.88	0.90	0.88	0.89	0.89	0.89	0.88	9.87	
USA	0.89	0.88	0.89	0.89	0.89	0.90	0.90	0.89	0.89	0.89	0.88	0.22

^LAPPENDIX II. Number of common bulls

BSW

common bulls below diagonal										
common three quarter sib group above diagonal										
	CAN	FRA	NLD	USA	CHE	DEA	NZL	ITA	GBR	SVN
CAN	0	79	51	163	124	129	22	116	57	32
FRA	70	0	82	119	158	206	21	182	50	54
NLD	48	67	0	77	94	146	23	123	38	43
USA	151	80	67	0	312	308	28	218	77	41
CHE	99	116	87	291	0	569	24	426	63	77
DEA	108	154	140	272	471	0	32	606	65	101
NZL	20	17	16	25	19	27	0	26	17	9
ITA	97	144	103	151	369	508	19	0	65	95
GBR	54	41	30	72	49	45	15	47	0	20
SVN	28	53	44	33	73	94	8	94	16	0

BSW

common bulls below diagonal										
common three quarter sib group above diagonal										
	CAN	FRA	NLD	USA	CHE	DEA	NZL	ITA	GBR	SVN
CAN	0	73	49	163	32	129	22	116	28	32
FRA	65	0	66	103	40	190	18	169	26	52
NLD	44	56	0	70	23	129	23	110	19	39
USA	151	71	60	0	36	307	28	216	35	41
CHE	26	32	22	25	0	106	6	88	9	33
DEA	108	143	121	272	101	0	32	602	31	101
NZL	20	15	16	25	6	27	0	26	10	9
ITA	97	137	91	151	82	506	19	0	32	95
GBR	26	21	15	33	5	23	8	25	0	12
SVN	28	51	40	33	32	94	8	94	10	0

GUE

common bulls below diagonal					
common three quarter sib group above diagonal					
	CAN	GBR	USA	AUS	NZL
CAN	0	29	69	46	14
GBR	24	0	86	37	13
USA	60	88	0	61	29
AUS	44	31	57	0	26
NZL	11	11	29	26	0

GUE

HOL

common bulls below diagonal																													
common three quarter sib group above diagonal																													
	CAN	CHE	DEU	DFS	EST	FRA	GBR	NLD	USA	ISR	ITA	AUS	HUN	BEL	JPN	ESP	ZAF	NZL	IRL	CZE	SVK	POL	LTU	LVA	PRT	KOR	SVN	HRV	URY
CAN	0	840	2386	1359	234	1423	1490	1442	3187	116	1640	1337	972	765	1308	1234	492	714	461	1008	418	1293	238	207	1014	627	193	294	732
CHE	700	0	1133	686	151	643	650	861	956	58	694	582	424	571	452	540	260	383	333	485	225	642	117	138	496	239	132	199	299


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common bulls below diagonal
common three quarter sib group above diagonal
  CAN  DFS  GBR  NLD  USA  AUS  ZAF  NZL  CHE
-----
CAN   0   78  143   35  403  246  145  163   36
DFS   62    0  137   95  151  122  124  118   53
GBR  146  124    0   74  214  194  154  196   65
NLD   30   92   68    0   79   65   68   70   38
USA  420  120  233   84    0  468  270  339   61
AUS  253   86  201   57  506    0  216  413   50
ZAF  140  100  154   63  283  206    0  187   53
NZL  171   89  201   62  408  456  196    0   49
CHE   29   48   62   32   61   41   47   40    0
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JER

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common bulls below diagonal
common three quarter sib group above diagonal
  CAN  DFS  GBR  NLD  USA  AUS  ZAF  NZL  CHE
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CAN   0   32   64   14  148  102   63   69   22
DFS   26    0   88   80  137  108  113  109   52
GBR   61   80    0   53  157  138  114  133   61
NLD    8   73   48    0   73   64   67   65   36
USA  137   97  167   78    0  468  270  339   61
AUS   92   70  139   56  506    0  216  412   50
ZAF   55   87  115   62  283  206    0  187   53
NZL   65   77  136   57  408  455  196    0   49
CHE   18   47   55   30   61   41   47   40    0
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RDC

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common bulls below diagonal
common three quarter sib group above diagonal
  CAN  DFS  GBR  NOR  USA  DEU  AUS  EST  ZAF  NZL  LTU  LVA  NLD  CAM
-----
CAN   0  149   76    5  190   15   99    2   69   80   17    7    6    0
DFS  150    0   95  122  174   69  175   92   50  158  103   91   52    0
GBR   76   88    0   44  100   19   77    7   36   71   25   11   30    0
NOR    5   95   46    0   68   20   63   17    0   39   25   17   40    0
USA  177  170   95   70    0   29  125  18   58  109  35  15  39  21
DEU   14   58   18   19   29    0   43   25    2   22  38  29  17    0
AUS   99  149   74   53  127   42    0   25  33  135  43  28  28  10
EST    2   81    6   17   17   24   23    0    0    7  25  36  13    0
ZAF   71   47   32    0   52    2   33    0    0   32    5    1    3    0
NZL   77  153   67   38  109   21  136    6  28    0  26  13  19  10
LTU   16   98   24   22   30   35   42   25    5  24    0  36  16    0
LVA    7   59   11   15   11   23   25   28    1  10  32    0    9    0
NLD    6   51   29   40   38   17   26   12    3  18  14    8    0    0
CAM    0    0    0    0   21    0  10    0    0  10    0    0    0    0
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RDC

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common bulls below diagonal
common three quarter sib group above diagonal
  CAN  DFS  GBR  NOR  USA  DEU  AUS  EST  ZAF  NZL  LTU  LVA  NLD  CAM
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CAN   0   67   24    3   68    8   32    0   35   30   13    4    3    0
DFS   67    0   67  124  167   69  194   92   45  156  102   92   46    0
GBR   24   62    0   41   68   16   49    5  23   50   20    9   22    0
NOR    3   96   43    0   68   20   63   17    0   39   25   17   33    0
USA   67  162   67   70    0   29  123  18   53  106  35  15  35  21
DEU    8   58   16   19   29    0   43   25    2   22  38  29  16    0
AUS   33  169   47   53  126   42    0   25  30  134  43  28  26  10
EST    0   81    5   17   17   24   23    0    0    7  25  36  12    0
ZAF   36   45   22    0   51    2   33    0    0   30    5    1    2    0
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NZL	30	148	48	38	109	21	135	6	28	0	26	13	16	10
LTU	12	97	19	22	30	35	42	25	5	24	0	36	15	0
LVA	4	59	9	15	11	23	25	28	1	10	32	0	8	0
NLD	3	44	22	33	35	16	24	11	2	15	13	7	0	0
CAM	0	0	0	0	21	0	10	0	0	10	0	0	0	0

SIM

common bulls below diagonal

common three quarter sib group above diagonal

	FRM	FRA	ITA	NLD	CHE	DEA	HUN	SVK	SVN	GBR	HRV	USA
FRM	0	3	159	115	188	232	2	57	17	65	2	41
FRA	1	0	139	63	12	254	5	54	53	0	90	1
ITA	192	124	0	191	85	801	15	137	102	44	229	23
NLD	141	61	186	0	84	292	7	63	49	48	106	18
CHE	239	9	87	88	0	303	2	31	5	51	2	21
DEA	270	213	705	305	268	0	32	367	180	47	548	22
HUN	0	4	12	7	1	21	0	9	8	0	16	0
SVK	57	45	115	54	26	374	8	0	44	11	94	5
SVN	17	50	96	47	5	166	7	43	0	0	75	0
GBR	83	0	48	48	58	50	0	6	0	0	0	19
HRV	1	82	214	100	2	571	14	74	63	0	0	2
USA	56	1	29	20	20	27	0	5	0	27	2	0

SIM

common bulls below diagonal

common three quarter sib group above diagonal

	FRM	FRA	ITA	NLD	CHE	DEA	HUN	SVK	SVN	GBR	HRV	USA
FRM	0	2	154	104	0	212	2	57	17	24	2	34
FRA	1	0	86	31	1	159	3	39	34	0	58	1
ITA	188	75	0	179	0	800	15	137	102	18	229	23
NLD	126	30	174	0	0	262	7	62	46	17	96	18
CHE	0	1	0	0	0	32	0	0	0	0	0	0
DEA	257	122	705	275	28	0	32	367	180	18	548	22
HUN	0	2	12	7	0	21	0	9	8	0	16	0
SVK	57	31	115	53	0	374	8	0	44	5	94	5
SVN	17	29	96	44	0	166	7	43	0	0	75	0
GBR	32	0	22	20	0	24	0	5	0	0	0	16
HRV	1	51	214	91	0	571	14	74	63	0	0	2
USA	49	1	29	20	0	27	0	5	0	21	2	0