COUNTRY'S NAME	BELGIUM
Production traits	Milk, fat and protein
Breed	Black and White Holstein, Red and White, East Flemish Red Pied, West Flemish Red, Red Holstein, Jersey, Brown Swiss. All these breeds are evaluated together in the same model
Trait definition and unit of measurement	305-day production for milk, fat and protein (kg) from the official milk recording system (ICAR A4 & AT4, A6)
Criteria for inclusion & extension of records	Sire known 60 d ≤ days in production ≤ 600 d 215 d ≤ days between calving ≤ 650 d 640 d ≤ age at 1st calving ≤ 1500 d 640 d ≤ age at calving ≤ 3000 d Records in progress are included if DIM ≥ 180 Records of culled cows & naturally terminated lactations are included if DIM ≥ 60 Record longer that 305 days are cut at 305 days Extension to 305-day : cumulative production + single regression of remaining yield on last known test-day yield
Time period for data inclusion	Records: Cows born since 1980 Pedigree: All available data
Sire categories	All sires in the relationship
Number of lactations included in the evaluation	First 3 lactations with equal weights
Environmental effects: Pre-adjustment **Base for age pre-adjustment**	All calvings adjusted for: Age at calving, Days open, Heterosis and recombination Age at calving: 24 months Days open: 12 days open classes, reference class = class 6 (91-100 days) Last updated: 1990
Method (model) of genetic evaluation	ST – R – BLUP – AM
Environmental effects in the genetic evaluation model	Fixed: Management group (herd*year*season of calving*parity), Year*month of calving, heterogeneity of variance Random: Cow additive genetic value + Cow permanent effect
Use of genetic groups	Genetic groups are assigned to parents of animals without known sire or dam, or both unknown. Definition : selection path, breed, country of origin and birth year of the animal If the number of animals per group is less than 20, groups with same selection path, breed and country of origin but with different birth-year, are pooled over successive birth years. Maximum 10 birth years are grouped together.
Genetic parameters in the evaluation	h 2 =0.30, t=0,55
System validation	Checks on data, including: Only one record per cow and parity Only dairy breeds Calving date > birth date 60 days ≤ days in production ≤ 600 days Lactation length ≤ 305 days 215 ≤ days between calving ≤ 650 days 1≤ lactation number ≤ 3 One pedigree record per animal Sire identity different from animal identity Dam identity different from animal identity Sire identity different from dam identity Trend validation (Interbull methods I & II), checks on proofs, correlations between subsequent proofs, etc.
Expression of genetic evaluations	EBV
Genetic (reference) base	Average of EBV of cows born in 1995 on the milk and dual purpose standard
Criteria for official publication of evaluations	Sires sampled in Belgium : Rpt ≥ 50% Sires not sampled in Belgium: Interbull proofs are published; Belgian proof replaces Interbull or converted proof if Rpt ≥ 85% and ≥ 20 daughters in ≥15 herds Cows : Rpt ≥40%
Number of evaluations / publications per year	4 evaluations (January, April, July, October); national proofs are released together with and at the same time of the Interbull release
Use in production / total merit index	Inet = -1 * EBVmilk + 55 * EBVfat + 230* EBVprotein
Anticipated changes in the	Incorporation of foreign cow proofs and published Interbull proofs of the sires in the

near future	Belgian cow proofs
Key reference on methodology applied	Stier Index VRV – Vlaamse Rundveeteelt Vereniging Van Thorenburghlaan 14 B-9860 Oosterzele – Belgium fax: 32-9-363 92 06 e-mail: vrv@vrv.be
Key organization: name, address, phone, fax, e-mail, web site	Ministry of Small Enterprises, Traders and Agriculture Directorate of Animal Health & Animal Product Quality Stock Farming & Meat Section WTC 3 - 4th floor Simon Bolivarlaan 30 B-1000 Brussels – BELGIUM Fax: 32-2-208 35 65 E-mail : Stan.Van.den.Maegdenbergh@cmlag.fgov.be Website : http://www.cmlag.fgov.be/

COUNTRY: Belgium

Number of AI bulls (NB) tested, means (X), and standard deviations (SD) of proofs (kg, %) from November 2000 evaluation run, by bulls' year of birth (YB) and breed.

		Milk		Fat		Protein		Fat %		Protein %	
YB	NB	X	SD	X	SD	X	SD	X	SD	X	SD
Breed						Holstein					
1980	13	-1251	439	-39	17	-39	12	0.23	0.18	0.05	0.11
1981	24	-1067	362	-32	19	-33	10	0.23	0.33	0.04	0.14
1982	23	-973	574	-21	18	-29	14	0.37	0.29	0.07	0.16
1983	22	-597	377	-11	16	-20	12	0.24	0.20	0.00	0.11
1984	24	-434	430	-11	16	-18	12	0.13	0.32	-0.06	0.13
1985	25	-227	557	-7	17	-10	15	0.05	0.29	-0.03	0.14
1986	29	-89	601	-4	16	-5	14	0.03	0.34	-0.03	0.13
1987	24	114	561	4	14	0	13	0.01	0.25	-0.05	0.13
1988	25	31	400	5	12	1	10	0.08	0.27	0.00	0.16
1989	31	174	345	3	15	2	10	-0.05	0.23	-0.05	0.11
1990	20	180	397	8	12	5	11	0.02	0.24	-0.02	0.10
1991	33	275	384	3	16	7	9	-0.12	0.22	-0.03	0.10
1992	33	406	397	6	15	11	11	-0.15	0.27	-0.04	0.10
1993	24	379	371	7	17	12	11	-0.12	0.28	-0.01	0.09
1994	34	770	410	16	16	23	12	-0.21	0.28	-0.03	0.11
1995	18	800	431	24	16	23	14	-0.12	0.16	-0.05	0.06
1996	24	1033	103	25	3	25	3	-0.23	0.09	-0.12	0.05
Breed						Dual purpose					
1980	43	-1019	466	-47	18	-34	12	-0.08	0.26	0.03	0.15
1981	65	-1018	498	-46	25	-34	15	-0.07	0.34	0.03	0.15
1982	46	-882	475	-41	21	-30	16	-0.08	0.26	-0.01	0.14
1983	58	-870	423	-37	18	-28	12	0.00	0.30	0.04	0.18
1984	64	-747	696	-34	29	-25	20	-0.05	0.31	0.03	0.15
1985	47	-580	666	-28	28	-20	19	-0.07	0.28	0.00	0.13
1986	53	-709	653	-33	27	-25	19	-0.05	0.37	0.00	0.14
1987	45	-515	665	-18	27	-17	18	0.09	0.33	0.02	0.16
1988	53	-316	815	-15	30	-11	21	-0.01	0.36	0.01	0.18
1989	36	-361	697	-19	33	-14	21	-0.07	0.31	-0.02	0.14
1990	36	-86	704	-10	29	-5	20	-0.12	0.35	-0.02	0.14
1991	54	-170	635	-9	28	-5	20	-0.02	0.30	0.02	0.13
1992	39	-203	678	-10	28	-5	19	-0.02	0.31	0.04	0.14
1993	23	203	532	9	18	8	13	0.05	0.41	0.03	0.14
1994	43	583	514	25	18	21	14	0.02	0.32	0.03	0.14
1995	57	761	455	36	11	28	11	0.08	0.27	0.04	0.13

COUNTRY: Belgium

Average of adjusted production records (kg, %) included in the November 2000 evaluation run, by daughters' year of birth (YB), number of cows (NC) and breed.

		Milk		Fat		Protein		Fat %		Protein %	
YB	NC	X	SD	X	SD	X	SD	X	SD	X	SD
Breed						Holstein					
1980	9628	4284	799	168	32	142	26	3.93		3.31	
1981	10768	4423	818	175	34	147	26	3.95		3.31	
1982	12238	4573	833	182	35	152	27	3.99		3.32	
1983	14001	4834	859	194	36	160	28	4.02		3.31	
1984	13758	4962	915	202	38	164	29	4.06		3.30	
1985	14068	5111	959	210	40	169	31	4.11		3.30	
1986	14657	5268	970	219	40	175	31	4.15		3.32	
1987	14654	5392	976	227	41	181	32	4.20		3.36	
1988	15450	5504	1047	232	44	186	34	4.21		3.37	
1989	25011	5538	1047	234	44	185	34	4.22		3.34	
1990	27188	5653	1072	238	44	189	35	4.21		3.33	
1991	27350	5827	1117	243	45	194	36	4.17		3.33	
1992	28745	5972	1154	246	46	199	38	4.12		3.32	
1993	29804	6054	1173	249	47	201	38	4.11		3.32	
1994	31887	6140	1190	251	47	203	39	4.08		3.31	
1995	34962	6285	1233	255	48	207	41	4.06		3.30	
1996	34948	6407	1275	258	50	211	42	4.02		3.29	
1997	29406	6644	1313	266	52	218	44	4.00		3.29	
1998	1521	6600	1378	258	53	215	44	3.91		3.25	
Breed						Dual purpose					
1980	19910	3687	655	140	27	123	22	3.80		3.34	
1981	21393	3772	673	144	28	126	23	3.83		3.35	
1982	21479	3897	698	151	29	131	24	3.86		3.35	
1983	22303	4074	722	159	31	137	25	3.91		3.36	
1984	21444	4150	749	162	32	139	25	3.91		3.35	
1985	20161	4242	784	167	34	142	27	3.94		3.35	
1986	20305	4341	824	174	36	146	28	4.00		3.37	
1987	21076	4424	890	180	39	150	30	4.06		3.39	
1988	21195	4425	933	182	41	151	32	4.11		3.42	
1989	24574	4499	1003	187	44	154	34	4.15		3.42	
1990	25034	4597	1007	192	44	157	34	4.19		3.42	
1991	24550	4746	1030	199	46	163	36	4.18		3.43	
1992	24106	4838	1055	202	46	165	36	4.17		3.42	
1993	24164	4936	1063	206	46	168	36	4.17		3.41	
1994	23645	5060	1089	212	48	173	38	4.19		3.41	
1995	24179	5207	1116	219	49	177	38	4.21		3.40	
1996	21614	5377	1161	227	50	181	40	4.22		3.37	
1997	16401	5641	1216	236	52	189	42	4.19		3.36	
1998	816	5491	1168	229	48	184	39	4.17		3.34	