

FACTS ON SIRE EVALUATION PROCEDURES APPLIED FOR PRODUCTION TRAITS

COUNTRY: ITALY	
Breed(s)	[I] Italian Friesian; [II] Italian Brown
Trait(s) evaluated and unit(s) of measurement	Milk (kg), fat and protein (kg, %)
Number of lactations	All
Genetic parameters assumed	h^2 :yield = 0.25, t=0.50
Criteria for inclusion and extension of records	[I] Records in progress extended after 60 days to 305 days for first calvers only. Closed lactations (200 days) are not extended [II] Records in progress extended after 100 days for first calvers only. Closed lactations (240 days) are included for cows born after 1972
Sire categories evaluated	All sires
Environmental effects considered by pre-adjustment by evaluation model	[I] Age at calving, season, lactation length, numbers of milking; [II] Age at calving, season, lactation length, DO, geographical belt [III] Herd*year*season of variable length and PE [IV] Herd*year*season and PE
Base for age adjustment (months)	ME (84 months)
Use of genetic groups and/or relationships	Relationship matrix used, phantom parents depending on genetic path, origin and birth year of progeny.
Method of evaluation	ST BLUP repeatability AM
Expression of proof	EBV (kg, %)
Genetic (reference) base	Stepwise, average EBV cows born in 1985
Criteria for official publication of sire proofs	[I] 20 daughters in 20 herds [II] 15 daughters in 5 herds
Number of evaluations/publications per year	2/2
Use of production index	[I] ILQ = $4.5 * ((-0.173 * \text{milk}) + (11.3 * \text{protein (kg)}) + \text{fat (kg)})$ [II] ITE = $1.0 * \text{fat(kg)} + 3.0 * \text{protein(kg)} + 0.1 * \text{fat(\%)} + 0.4 * \text{protein(\%)} + 1.0 * \text{type}$

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Name, address and faxnumber of organization responsible for sire evaluation and publication	<p>[I] ANAFI (Associazione Nazionale Allevatori Frisona Italiana) via Bergamo 292, 26100 Cremona, Italy Tel: 39-372-41 25 21 Fax: 39-372- 2 96 70</p> <p>[II] Associazione Nazionale Allevatori Bovini Della Razza Bruna Loc. Ferlina, 204 37012 BUSSOLENGO/VR, Italy Tel: (045) 6701990 Fax: (045) 7156655</p>
Key references on methodology applied	<p>Wiggans, G.R., Misztal, I. & Van Vleck, L.D. 1988. Implementation of an animal model for genetic evaluation of dairy cattle in the United States. <i>Journal of Dairy Science</i>, 71 (suppl. 2) 54-69</p> <p>Jansen, G.B. 1989. Application of an animal model for genetic evaluation of the Italian Friesian breed. Mimeo.</p>

COUNTRY: ITALY

Number of AI bulls (NB) tested, means (X) and standard deviations (SD) of proofs (kg) from most recent run, by bull's year of birth (YB) and breed

YB	NB	Milk		Fat		Protein		Fat %		Protein %		
		X	SD	X	SD	X	SD	X	SD	X	SD	
Breed:		Black and White										
1975	35	4	476	1.0	16.0	0.0	15.0	0.02	0.18	-0.01	0.09	
1976	37	-9	498	2.0	18.0	1.0	15.0	0.04	0.20	0.01	0.09	
1977	65	68	564	5.0	20.0	4.0	17.0	0.05	0.21	0.02	0.09	
1978	56	19	576	6.0	22.0	3.0	18.0	0.08	0.22	0.03	0.09	
1979	55	28	601	6.0	21.0	3.0	17.0	0.08	0.21	0.02	0.09	
1980	41	421	624	19.0	21.0	17.0	18.0	0.06	0.18	0.05	0.09	
1981	34	448	509	27.0	22.0	19.0	17.0	0.15	0.23	0.06	0.09	
1982	61	548	591	22.0	23.0	19.0	18.0	0.04	0.18	0.03	0.08	
1983	74	923	422	30.0	16.0	28.0	13.0	-0.02	0.16	-0.01	0.08	
1984	90	901	510	32.0	20.0	30.0	16.0	0.01	0.19	0.02	0.09	
1985	94	1026	514	40.0	17.0	36.0	15.0	0.05	0.16	0.05	0.08	
1986	157	1333	387	48.0	14.0	46.0	11.0	0.02	0.15	0.05	0.08	
Breed:		Italian Brown										
1975	31	56	321	1.8	14.2	2.8	9.8	-0.01	0.12	0.02	0.06	
1976	36	93	354	5.4	14.7	4.6	12.1	0.03	0.13	0.03	0.08	
1977	40	74	311	5.3	12.6	4.7	10.6	0.04	0.13	0.04	0.07	

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		Milk		Fat		Protein		Fat %		Protein %	
YB	NB	X	SD	X	SD	X	SD	X	SD	X	SD
1978	33	117	305	7.6	12.5	6.2	10.7	0.06	0.13	0.04	0.08
1979	37	94	305	5.7	12.6	5.0	9.8	0.04	0.12	0.03	0.09
1980	36	52	348	2.0	15.4	2.3	12.0	0.00	0.13	0.01	0.09
1981	36	50	418	0.6	15.5	2.3	13.4	-0.03	0.11	0.01	0.08
1982	42	92	303	2.4	12.0	5.0	10.0	-0.02	0.13	0.03	0.08
1983	35	228	306	6.1	14.5	8.1	11.3	-0.05	0.14	0.01	0.09
1984	31	177	345	5.8	14.6	6.3	10.8	-0.02	0.18	0.01	0.10
1985	34	364	353	17.4	14.5	14.1	10.7	0.06	0.16	0.04	0.08
1986	7	581	370	19.0	12.4	17.9	12.7	-0.04	0.11	-0.02	0.03

COUNTRY: ITALY

Average of adjusted production records (kg) included in the most recent evaluation run, by daughters' year of calving (YC) and breed

YC	Milk	Fat	Protein	Fat %	Protein %
Breed: Black and White					
1980	5901	216	183	3.66	3.11
1981	5975	215	185	3.60	3.09
1982	6131	217	190	3.54	3.11
1983	6197	220	193	3.55	3.11
1984	6288	221	196	3.51	3.11
1985	6498	227	202	3.50	3.11
1986	6736	235	208	3.49	3.08
1987	6981	245	214	3.51	3.07
1988	7148	251	217	3.51	3.04
1989	7448	259	224	3.47	3.01
1990	7596	265	229	3.48	3.02
1991	7810	276	240	3.54	3.07