

FACTS ON SIRE EVALUATION PROCEDURES APPLIED FOR PRODUCTION TRAITS

COUNTRY: IRELAND	
Breed(s)	Holstein Friesian
Trait(s) evaluated and unit(s) of measurement	Milk (kg), fat and protein (kg,%)
Number of lactations	1
Genetic parameters assumed	$h^2 = 0.25$
Criteria for inclusion and extension of records	Sire and maternal grandsire have to be same breed. Normal lactation 150-305 days. Records from culled cows and records in progress are excluded. Age at calving between 18-38 months
Sire categories evaluated	Almost all are AI sires
Environmental effects considered by pre-adjustment	Date of calving, age at calving and breed cross of dam
by evaluation model	Herd*year*season, group of sire
Base for age adjustment (months)	24 months
Use of genetic groups and/or relationships	Sire groups by year / relationship matrix used with sire and maternal grandsire
Method of evaluation	ST BLUP SM ¹
Expression of proof	PD (kg, %)
Genetic (reference) base	Fixed base, average of bulls which had their first daughters recorded in 1981 or 1982
Criteria for official publication of sire proofs	25 effective daughters, Rpt ≥ 0.63
Number of evaluations/publications per year	1
Use of production index	RB-index: $100 + (0.47*PD \text{ fat kg}) + (1.39*PD \text{ protein kg}) + 0.0139*(4213 + PD \text{ milk}) *(PD \text{ protein } \%)$
Name, address and faxnumber of organization responsible for sire evaluation and publication	Department of Agriculture and Food Kildare Street Dublin 2, Ireland Fax: (01) 616263
Key references on methodology applied	National Breeding programme for dairy cattle - Report spring 1992. Department of Agriculture and Food, Kildare Street, Dublin 2, Ireland

¹ Application of an Animal Model and a new base will be effective January 1993

COUNTRY: IRELAND											
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											
		Milk		Fat		Protein		Fat %		Protein %	
YB	NB	X	SD	X	SD	X	SD	X	SD	X	SD
Breed:		Holstein Friesian									
1975	30	60	116	1.9	4.8	1.5	3.5	-0.01	0.06	-0.01	0.03
1976	35	-10	134	-0.5	5.4	-0.4	4.0	-0.00	0.06	-0.00	0.04
1977	52	4	107	0.2	4.6	0.2	3.3	0.00	0.06	0.00	0.04
1978	35	56	133	3.2	4.4	2.0	3.9	0.03	0.08	0.00	0.04
1979	24	80	86	5.6	3.6	3.3	2.9	0.06	0.07	0.02	0.03
1980	40	72	121	3.6	5.0	2.4	3.7	0.02	0.07	0.00	0.05
1981	37	86	106	5.9	4.0	3.1	3.2	0.07	0.08	0.01	0.04
1982	43	64	127	4.3	4.4	2.3	3.4	0.05	0.07	0.01	0.04
1983	39	76	196	5.5	6.4	2.6	5.3	0.07	0.07	0.00	0.05
1984	46	232	156	9.8	5.3	7.1	4.5	0.03	0.07	-0.01	0.05
1985	37	191	140	9.4	6.0	6.1	4.6	0.06	0.09	-0.01	0.04
1986	28	169	171	9.1	5.3	5.1	4.7	0.07	0.11	-0.01	0.05

COUNTRY: IRELAND					
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:	Friesian/Holstein				
1980	3210	117	105	3.65	3.26
1981	3005	109	99	3.64	3.29
1982	3589	128	119	3.58	3.31
1983	3899	139	129	3.57	3.31
1984	3980	141	130	3.54	3.28
1985	3980	143	130	3.59	3.27
1986	4076	148	133	3.63	3.27
1987	4111	150	133	3.65	3.24
1988	4241	156	137	3.68	3.23
1989	4326	159	140	3.68	3.24
1990	4388	163	143	3.72	3.26
1991	4142	155	135	3.74	3.26