

FACTS ON APPLIED SIRE-EVALUATION PROCEDURES FOR DAIRY PRODUCTION TRAITS

COUNTRY	AUSTRALIA
Breed(s)	Friesian, Jersey, Ayrshire, Illawarra, Dairy Shorthorn, Guernsey
Traits evaluated and units of measurement	Milk (l), fat and protein (kg, %)
Number of lactations	All
Genetic parameters applied	h^2 :milk, fat, protein yield = 0.25 Repeatability = 0.50
Inclusion and extension of records	Normally terminated lact. of 120-300 days included without extension Rec. of >120 days from culled cows included without extension Rec. in progress included using comparison with test day information Age at calving >18months
Sire categories evaluated	All sires
Effects considered by preadjustments	Age at calving, month of calving
by model of evaluation	Herd-year-season, additive genetic merit (sire, cow), non-additive gen. merit plus permanent environment effect (cow)
Base of age adjustment	7 years of age
Use of genetic groups/relationships/pedigree	No groups. Rel.ship matrix used/all relationships linking males are used. Direct links between females used only if in the same herd
Method of evaluation used	Single trait BLUP
Expression of genetic merit	BV (l, kg)
Genetic base, kind/definition	Fixed, average BV of sires of all cows in file up to 1981/82
Minimum requirements for official publication of sire proofs	20 eff. daughters in ≥ 5 herds (Friesian, Jersey) 10 eff. daughters in ≥ 3 herds (other breeds)
Use of selection index or total merit index	No total merit index used
Name and address of organization responsible for sire evaluations and publishing of results	Australian Dairy Herd Improvement Scheme First Floor, 1601 Malvern Road Glen Iris Victoria 3146 Australia

Key references on methodology applied JONES, L.P. 1985. Breeding Values: Their calculation and significance. Proc. 5th Conf. Aust. Assoc. Anim. Breed. Genetics.

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App. 1

Number of bulls tested, means of genetic merit (BV) by year of birth

Year of birth	No. of bulls	Breeding values	
		Milk \bar{x}	Fat \bar{x}
Breed: Friesian			
1969	74	-122	-7
70	64	-130	-4
71	65	-47	-2
72	70	-125	-6
73	84	-83	2
74	65	-141	0
75	67	-58	2
76	71	74	5
77	61	-20	0
78	81	39	2
79	91	-62	4
80	106	21	2
Breed: Jersey			
1969	28	-94	-6
70	14	52	-1
71	25	-8	0
72	23	12	1
73	36	-18	-3
74	23	-37	-1
75	20	-50	-1
76	27	-24	-1
77	13	43	2
78	32	12	-1
79	20	-35	-3
80	27	-83	-7