

# FACTS ON SIRE EVALUATION PROCEDURES APPLIED FOR NON-PRODUCTION TRAITS

## COUNTRY: AUSTRALIA

Trait(s):	<u>REPRODUCTION</u> a) Calving performance <u>MILKABILITY</u> b) Milking speed c) Udder conformation <u>LOCOMOTION</u> d) Feet and legs <u>OTHER</u> e) Survival f) Other body conformation traits g) Temperament h) Likeability
Breed(s):	Holstein-Friesian (a-h) Jersey (b-h) Illawarra (c,d,f)
Trait definition and unit(s) of measurement	a) On 3-point scale from easy to hard b,g,h) Scored from 1 to 5 e) % surviving from one year to next c,d,f) In total there are 30 conformation traits scored on a linear scale with 9 or 18 categories
Method of measuring and collecting data	a) Farmers assessment b,g,h) Scoring by farmers e) From production records c,d,f) Scoring by official classifiers of breed society
Time period for data inclusion	a) Since 1975 b-h) Since 1980
Age groups considered	a) Second calf and older b-d,f-h) Heifers with maximum age at calving 42 months e) All ages
Genetic parameters assumed	$h^2$ : a) 0.05; b) 0.25; c) 0.17 - 0.33; d) 0.10 - 0.20; e) 0.025; f) 0.17 - 0.45; g) 0.16; h) 0.20
Sire categories evaluated	a,b,e,g,h) AI sires c,d,f) AI sires and registered natural service sires
Environmental effects considered by pre-adjustment  by evaluation model	   a,b,g,h) Herd-Year-Season, age at calving e) Herd-Year-Season c,d,f) Herd-Season-Classifer, age at classification, stage of lactation
Base for age adjustment	-
Use of genetic groups and/or relationship	Relationship matrix with sires and maternal grandsire

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Method of evaluation	ST BLUP MGS model
Expression of proof	a) Expected % difficult calvings when mated to average mature cows b,g,h) Expected % of satisfactory daughters when mated to average cows e) EBV (%) c,d,f) EBV in units of SD of proof multiplied by 2.5
Genetic (reference) base	Fixed, average EBV of sires with proofs in 1990
Criteria for official publication of sire proofs	a) 60 effective daughters in 15 herds b,g,h) 25 effective daughters in 15 herd e) 50 effective daughters in 15 herds c,d,f) 15 effective daughters in 5 herds
Number of evaluations/ publications per year	1
Use in total merit index	No official index at present
Name, address and faxnumber of organization responsible for sire evaluation and publication	Australian Dairy Herd Improvement Scheme First floor 1601 Malvern Road Glen Iris Vic 3146, Australia Fax: 61-3-8851526
Key references on methodology applied	-