# FACTS ON SIRE EVALUATION PROCEDURES APPLIED FOR PRODUCTION TRAITS

## COUNTRY: AUSTRALIA

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|---|---|
| Breed(s) | Holstein-Friesian, Jersey, Australian Friesian Sahiwal, Simmental, Illawarra, Ayrshire, Dairy Shorthorn and other red breeds. |
| Trait(s) evaluated and unit(s) of measurement | Milk(l), fat and protein (kg, %) |
| Number of lactations | All |
| Genetic parameters assumed | $h^2$:yield = 0.25, t = 0.50<br>$h^2$:fat % = 0.45, $h^2$:protein = 0.60 |
| Criteria for inclusion and extension of records | Age at calving > 18 months. Use is made of test day information up to 300 days for all lactations, both complete and in progress. A penalty is applied to lactations completed before 210 days. |
| Sire categories evaluated | All sires. |
| Environmental effects considered<br>  by pre-adjustment<br><br>  by evaluation model | Test day yields are corrected for age and stage of lactation.<br><br>Herd-year-season (2 seasons), age groups 2,3,4,5 and 5 years, crossbred vs purebred |
| Base for age adjustment (months) | 84 |
| Use of genetic groups and/or relationships | No groups. Relationship matrix with all relatives except that maternal grand-sire is used instead of dam if dam is in different herd. |
| Method of evaluation | ST BLUP AM. |
| Expression of proof | Breeding value in units of measurement. |
| Genetic (reference) base | Fixed, average BV of AI sires weighted by numbers of daughters on file up to 1981/82. |
| Criteria for official publication of sire proofs | 25 effective daughters in 15 herds for Friesian and Jersey, 10 in 3 herds for other breeds. |
| Number of evaluations/ publications per year | 1 |
| Use of production 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<br>Glen Iris Vic 3146 Australia.<br>Fax: 61-3-8851526 |
| Key references on methodology applied | Jones, L.P. 1985. Proc 5th Conf. Aust. Assoc. Anim. Breed. Genetics: 242<br>Jones, L.P. 1991. Proc 9th Conf. Aust. Assoc. Anim. Breed. Genetics: 9 |

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

| YB | NB | Milk X | Milk SD | Fat X | Fat SD | Protein X | Protein SD | Fat % X | Fat % SD | Protein % X | Protein % SD |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Breed:** | | Holstein | | | | | | | | | |
| 1975 | 74 | -32 | | 4.0 | | 3.0 | | | | | |
| 1976 | 78 | 142 | | 8.0 | | 5.0 | | | | | |
| 1977 | 71 | 83 | | 5.0 | | 4.0 | | | | | |
| 1978 | 93 | 122 | | 6.0 | | 4.0 | | | | | |
| 1979 | 113 | 93 | | 11.0 | | 6.0 | | | | | |
| 1980 | 115 | 111 | | 8.0 | | 4.0 | | | | | |
| 1981 | 136 | 203 | | 11.0 | | 6.0 | | | | | |
| 1982 | 127 | 175 | | 13.0 | | 6.0 | | | | | |
| 1983 | 137 | 208 | | 15.0 | | 7.0 | | | | | |
| 1984 | 193 | 443 | | 22.0 | | 13.0 | | | | | |
| 1985 | 181 | 512 | | 26.0 | | 14.0 | | | | | |
| 1986 | 108 | 519 | | 25.0 | | 15.0 | | | | | |
| **Breed:** | | Jersey | | | | | | | | | |
| 1975 | 20 | -5 | | 1.0 | | 1.0 | | | | | |
| 1976 | 28 | 42 | | 3.0 | | 1.0 | | | | | |
| 1977 | 15 | 177 | | 9.0 | | 5.0 | | | | | |
| 1978 | 39 | 90 | | 6.0 | | 3.0 | | | | | |
| 1979 | 22 | 68 | | 5.0 | | 3.0 | | | | | |
| 1980 | 33 | -8 | | 1.0 | | 1.0 | | | | | |
| 1981 | 32 | 103 | | 7.0 | | 4.0 | | | | | |
| 1982 | 25 | 200 | | 13.0 | | 7.0 | | | | | |
| 1983 | 40 | 362 | | 17.0 | | 12.0 | | | | | |
| 1984 | 36 | 431 | | 20.0 | | 13.0 | | | | | |
| 1985 | 15 | 417 | | 20.0 | | 12.0 | | | | | |
| 1986 | 7 | 705 | | 27.0 | | 7.0 | | | | | |

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