

**FACTS ON SIRE EVALUATION PROCEDURES APPLIED FOR
PRODUCTION TRAITS**

COUNTRY: UNITED KINGDOM

Breed(s)	Holstein Friesian, Ayrshire, Dairy Shorthorn, Guernsey, Jersey, Guernsey Island, Jersey Island
Trait(s) evaluated and unit(s) of measurement	Milk (kg), fat and protein (kg, %)
Number of lactations	5
Genetic parameters assumed	h^2 :yield = 0.35, c = 0.16, herd*sire = 0.04, t = 0.55
Criteria for inclusion and extension of records	Lactations not included if < 200 days, records in progress not utilized
Sire categories evaluated	All sires
Environmental effects considered by pre-adjustment	Age within lactation, lactation number, month of calving, calving interval, heterogeneity of variance, % heterosis, % recombination
by evaluation model	Herd*year*season, herd*sire, PE, unknown parents groups
Base for age adjustment (months)	Holsteins: 30 months, Jersey: 28 months, Shorthorn and Guernsey: 32 months and Ayrshire: 33 months
Use of genetic groups and/or relationships	Groups by year of birth and sex of animal, sex of parent and country of origin, all relationship used
Method of evaluation	ST BLUP AM
Expression of proof	PTA
Genetic (reference) base	Stepwise base, average PTA of cows born 1985
Criteria for official publication of sire proofs	REL \geq 50%
Number of evaluations/publications per year	2
Use of production index	Profit index: $(-0.039*PTA \text{ milk}) + (0.94 *PTA \text{ fat kg}) + (2.75 * PTA \text{ protein kg})$
Name, address and faxnumber of organization responsible for sire evaluation and publication	Bull and Cow Evaluation Unit Thames Ditton, Surrey KT7 OEL Great Britain Tel: 081-398 4101 Fax: 081 3989206
Key references on methodology applied	Wiggans, G.R., Misztal, I. and Van Vleck, L.D. 1988. Implementation of an Animal Model for Genetic Evaluation of Dairy Cattle in the United States. Proceedings of the Animal Model Workshop, J.D.Sci. vol 71, Suppl. 2, 54-69.