

FACTS ON SIRE EVALUATION PROCEDURES APPLIED FOR NON-PRODUCTION TRAITS

COUNTRY: CANADA

Trait(s):	<u>REPRODUCTION</u> a) Calving performance (direct and maternal) <u>MILKABILITY</u> b) Milking speed c) Udder conformation <u>LOCOMOTION</u> d) Feet and legs <u>OTHER</u> e) Other body conformation traits
Breed(s):	Holstein, Ayrshire, Brown Swiss, Guernsey, Jersey
Trait definition and unit(s) of measurement	a,b) Traits are subjectively scored from 1 to 5 c-e) There are in total 27 conformation traits, scored on a linear scale in 9 or 18 categories
Method of measuring and collecting data	a,b) Scores are assigned by herdowners during the first six months of lactation c-e) Herds are visited in a 9 to 10-mo cycle by special classifiers (round of classification)
Time period for data inclusion	a,b) All available data c-e) Data since 1982
Age groups considered	a,c-e) All ages b) First lactation only
Genetic parameters assumed	a) h^2 : direct = 0.11; maternal = 0.12. $r_g = -0.27$ b) $h^2 = 0.21$; c-e) $h^2 : 0.10 - 0.42$
Sire categories evaluated	All
Environmental effects considered by pre-adjustment	None
by evaluation model	a) Sex of calf, parity (first or later) b) Herd*year, calving season, age at calving, stage of lactation c-e) Herd*round*classifier, age at calving, stage of lactation at classification
Base for age adjustment	-
Use of genetic groups and/or relationship	Full relationship and phantom parent groups
Method of evaluation	BLUP AM
Expression of proof	a,b) ETA's (linear scale 1-9) c-e) ETA's, standardized to mean=0 and SD=5
Genetic (reference) base	All cows
Criteria for official publication of sire proofs	10 or more daughters with minimum of 55 % REL
Number of evaluations/publications per year	a,b) 1 c-e) 2

FACTS ON SIRE EVALUATION PROCEDURES APPLIED FOR NON-PRODUCTION TRAITS

COUNTRY: CANADA

Use in total merit index	Still in research
Name, address and faxnumber of organization responsible for sire evaluation and publication	<p>a,b) Genetic Evaluation Division, Agriculture Canada Sir John Carlings Building, Ottawa, Ontario Canada K1A 0C5</p> <p>c-e) CGIL Department of Animal Breeding and Genetics University of Guelph Guelph, Ontario, Canada N1G 2W1 Fax: 519 767 0573</p>
Key references on methodology applied	<p>b) Banos, G. & Burnside, E.B. 1992. Genetic evaluation of Canadian dairy bulls for milking speed with an animal model. Can. J. Anim. Sci. 72: 169-172</p> <p>c-e) Meyer, K. & Burnside, E.B. 1988. Joint sire and cow evaluation for conformation traits using an individual animal model. J. Dairy Sci. 71, 1034-1049.</p>