FACTS ON SIRE EVALUATION PROCEDURES APPLIED FOR NON-PRODUCTION TRAITS

COUNTRY: DENMARK	
Trait(s):	REPRODUCTION a) Female fertility b) Calving performance c) Stillbirths HEALTH d) Clinical Mastitis e) Somatic cell count MILKABILITY f) Milking speed g) Udder conformation LOCOMOTION h) Feet and legs OTHER i) Temperament j) Other body conformation traits
Breed(s):	Danish Black and White, Danish Jersey, Danish Red, Danish Red and White
Trait definition and unit(s) of measurement	a) 56-day non-return rate of daughters b) "Birth index" The direct effect of bull, based on ease of calving and size and vitality of the calf. c) "Calving index" The ability of the daughters to give birth to live born calves d,e) Mastitis and somatic cell counts as correlated traits f-j) Linearly scored udder and teat (7), feet and legs (5) and other (7) conformation traits
Method of measuring and collecting data	a) Data collected by the AI-technicians b,c) Via the official milk recording system d) Veterinarians invoicing systems and the recording system e) Milk recording system f-j) Classification of daughter groups by classifiers
Time period for data inclusion	a-c) Last four years d,e) Since 1990 f-j) Since 1989
Age groups considered	a,c) 1st lactation b) All ages d) -10 to 180 days after calving (1st lactation) e) 10 to 80 days after calving (1st lactation) f-j) 1st and 2nd lactation cows
Genetic parameters assumed	a,c) $h^2 = 0.025$ b) Heritabilities and correlations within breed and parity for the three traits d,e) h^2: mastitis= 0.04; Somatic cell count= 0.11; r_g= 0.63 f-j) h^2: 0.05 - 0.75

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COUNTRY: DENMARK	
Sire categories evaluated	**a-c)** All AI sires **d,e)** All sires **f-j)** All but only 1st batch of daughters

Environmental effects considered
  by pre-adjustment
 	
  by evaluation model
	a) Parity, season, AI-society
	
	b) Age of cow, sex of calf, year, season, herd, breed
	d,e) Herd, Year-Season, Calving age
	f-j) Season-Year, age at calving, months from calving, classifier, breed

Base for age adjustment	Jersey 26 months, Other breeds 28 months
Use of genetic groups and/or relationship	**a,c)** No **b)** Groups of proven and young sires **d,e)** Relationship among bulls **f-j)** Sire, maternal grand sire.
Method of evaluation	**a,c)** CC **b)** ST BLUP SM **d,e)** MT BLUP SM **f-j)** BLUP AM
Expression of proof	**a-e)** RBV **f-j)** EBV, standardized with mean = 0 and SD = 1
Genetic (reference) base	Rolling average of bulls tested within the last year
Criteria for official publication of sire proofs	**a)** 50 daughters **b)** 50 % repeatability **c)** 30 daughters with 1st calving **d,e)** 40 % repeatability **f-j)** 15 daughters classified or progeny information equivalent to that
Number of evaluations/ publications per year	**d,e)** 2 **f-j)** 6
Use in total merit index	**a,c-f)** Included in total merit index **b)** Not included in total merit index
Name, address and faxnumber of organization responsible for sire evaluation and publication	National Committee on Danish Cattle Husbandry Udkaersvej 15, Skejby DK-8200 Aarhus N DENMARK Tel: +45 86 10 90 88 Fax: +45 86 10 97 00
Key references on methodology applied	Principles of Danish Cattle breeding. National Committee on Danish Cattle Husbandry Udkaersvej 15, Skejby DK-8200 Aarhus, 30 pp.