Country Israel

Trait category:	*Individual trait(s):*
Reproduction-calving	**Dystocia (direct, maternal)**
	Calf mortality (direct, maternal)
Reproduction-fertility	**Number of inseminations (female)**
	Percentage conception (male)
Health	**Somatic cell count**
Conformation	**Udder**
	Locomotion
	Other

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Reproduction calving traits	Dystocia (direct, maternal) Calf mortality (direct, maternal)
Breed(s)	Israeli Holsteins
Trait definition and unit(s) of measuring	Dystocia is the percentage of difficult calvings scored in 2 categories; easy (0), difficult (1) Calf mortality is the percentage calves born dead or dead within 24 hours after birth
Method of measuring and collecting data	Scored by farmer and collected by veterinarian
Time period for data inclusion	Since 1985
Age groups	1st parity
Genetic parameters	Computed by REML for each evaluation $h^2_{dystocia}$ = 0.05 to 0.10 $h^2_{calf\ mortality}$ = 0.03 to 0.06
Sire categories	AI-local bulls, local beef bulls mated to dairy cows, imported semen of AI-bulls
Environmental effects **pre-adjustment** **evaluation model**	None Age, month, herd x year x season, sex
Base for age adjustment	None
Use of genetic groups and/or relationships	Groups, no relationships
Method (model) of genetic evaluation	ST BLUP Sire-MGS model
System validation	Genetic and phenotypic trends estimated
Expression of proof	Transmitting ability on trait scale, higher values indicate more dystocia and more dead calves, respectively
Genetic (reference) base	Cows born in 1990
Criteria for official publication of sire proofs	REL > 0.5
Number of evaluations/ publications per year	Two; April, October
Use in total merit index	No
Key reference on methodology applied	Weller, J.I. & D. Gianola, 1989. J of Dairy Sci. 72: 2633

Reproduction fertility traits	a) b)	Number of inseminations (female) Percentage conception (male)
Breed(s)	a,b)	Israeli Holsteins
Trait definition and unit(s) of measuring	a)	100 / (number of inseminations to conception), with maximum 6 inseminations per lactation
	b)	Percentage conception per insemination, with maximum 6 inseminations per lactation
Method of measuring and collecting data	a,b)	Veterinarian checks for pregnancy if no heat detection after 60 days of insemination
Time period for data inclusion	a,b)	Last three years
Age groups considered	a,b)	1st to 5th lactation
Genetic parameters	a)	$h^2_{\text{number of inseminations (female)}} = 0.025$
	b)	$h^2_{\text{percentage conception (male)}} = 0.02$
Sire categories	a,b)	AI-local bulls, local beef bulls mated to dairy cows, imported semen of AI-bulls
Environmental effects		
pre-adjustment	a)	Month, parity
	b)	None
evaluation model	a)	Herd x year x season, permanent environment, parity
	b)	Herd, month, parity, days in milk, inseminator, region, stud, dystocia for previous calving
Base for age adjustment	a)	Mean of 4th and 5th parity
	b)	No
Use of genetic groups and/or relationships	a)	All genetic groups, also phantoms
	b)	None
Method (model) of genetic evaluation	a)	ST BLUP AM, virgin heifers evaluated separately
	b)	ST BLUP Sire-MGS model, virgin heifers evaluated separately
System validation	a,b)	Genetic and phenotypic trends estimated
Expression of proof	a,b)	EBV, on same scale as recorded
Genetic (reference) base	a,b)	Cows born in 1990
Criteria for official publication of sire proofs	a,b)	REL > 0.5
Number of evaluations/ publications per year	a,b)	Two; April, October
Use in total merit index	a,b)	No
Key reference on methodology applied	a)	Weller, J.I., 1998. J. Dairy Sci. 72: 2644
	b)	Weller, J.I. & M. Ron, 1992. J. of Dairy Sci. 75: 2541

Health traits	Somatic cell count
Breed(s)	Israeli Holsteins
Trait definition and unit(s) of measuring	Lactation mean of log 2 transformed somatic cell count (in 1000/ml)
Method of measuring and collecting data	Collected by milk recording system
Time period for data inclusion	Since 1985
Age groups considered	1st to 5th lactation
Genetic parameters	$h^2_{\text{somatic cell count}} = 0.10$
Sire categories	AI-local bulls, local beef bulls mated to dairy cows, imported semen of AI-bulls
Environmental effects	
pre-adjustment	Month, parity
evaluation model	Herd x year x season, permanent environment, parity
Base for age adjustment	4th and 5th parity
Use of genetic groups and/or relationships	None
Method (model) of genetic evaluation	ST BLUP AM for repeated records
System validation	Genetic and phenotypic trends estimated
Expression of proof	EBV, on same scale as recorded
Genetic (reference) base	Cows born in 1990
Criteria for official publication of sire proofs	REL > 0.5
Number of evaluations/ publications per year	Two; April, October
Use in total merit index	No
Key reference on methodology applied	Weller, J.I. & E. Ezra, 1995. Heker Umas 17: 5 (in Hebrew)

Conformation traits	Udder Locomotion Other
Breed(s)	Israeli Holsteins
Trait definition and unit(s) of measuring	Individual traits are scored on a linear 1-9 point scale, following recommendation of the European and World-wide group for harmonization of linear type classification Quality traits are scored on a scale from 50 to 100
Method of measuring and collecting data	Scored by classifier
Time period for data inclusion	Since 1990
Age groups considered	1st lactation
Genetic parameters	Computed by REML for each evaluation $h^2_{\text{udder traits}}$ = 0.20 to 0.40 $h^2_{\text{locomotion traits}}$ = 0.05 to 0.10 $h^2_{\text{other traits}}$ = 0.20 to 0.40
Sire categories	AI-local bulls, local beef bulls mated to dairy cows, imported semen of AI-bulls
Environmental effects pre-adjustment evaluation model	Age, days in milk, month of calving Herd x year x season
Base for age adjustment	24 months
Use of genetic groups and/or relationships	None
Method (model) of genetic evaluation	MT BLUP SM
System validation	Genetic and phenotypic trends estimated
Expression of proof	RBV with SD_g = 6
Genetic (reference) base	Cows born in 1990
Criteria for official publication of sire proofs	REL > 0.5
Number of evaluations/ publications per year	Two; April, October
Use in total merit index	No
Key reference on methodology applied	Weller, J.I. & M. Ron, 1992. J. of Dairy Sci. 75: 2541 Weller, J.I. & D. Gianola, 1984. J of Dairy Sci. 72: 2633