COUNTRY'S NAME	ISRAEL
Production traits	**Milk, fat, and protein**
Breed	Israeli-Holstein
Trait definition and unit of measurement	Direct: Milk yield (Kg), fat and protein (%). Indirect: Fat and protein %. Mature equivalent 305 day Kg milk, fat, and protein production. 305 day milk production is computed from daily milk production recorded monthly by milk inspectors at Kibbutz herds. Fat % and protein % are assayed by milk-o-scan on samples sent to a central laboratory once monthly. Samples from all three daily milkings are combined by milk inspectors in proportion to milk production at each milking. At family farms milk recording is done by the farmer, and alternate AM and PM milk samples are sent for analysis.
Criteria for inclusion & extension of records	Records are deleted if: sire, birthday or freshening day are unknown, or parity > 5, or days dry > 150, or kg milk > 20,000, or kg milk < 2000, or kg fat > 650, or kg protein > 600, or kg protein < 10, or age at first calving < 640 days, or age at fifth calving > 2555 days. Records with >34 days in milk and at least two monthly tests are included. All records are extended if days in milk < 275 and days pregnant < 186.
Time period for data inclusion	First calving since Jan. 1, 1985 (plus 2-3 generations for pedigree)
Sire categories	All bulls are AI sires.
Number of lactations included in the evaluation	Lactations 1 through 5 are included. All are weighted equally
Environmental effects: Pre-adjustment **Base for age pre-adjustment**	Parity, calving age (parity 1-3), calving month, and days open (current). Separate adjustment factors are computed for herds with 2X (family farms) and 3X milkings (Kibbutz herds). Adjustment factors were updated in January 1999. Base for adjustment is April calving of fourth and fifth parity cows with 90 days open.
Method (model) of genetic evaluation	ST – ML – BLUP – AM (See Appendix I)
Environmental effects in the genetic evaluation model	Herd-year-season, and parity by herd type by year group. Both effects are fixed class effects.
Use of genetic groups	Grouping of phantom parents based on sex and birth year. A separate group is defined for parents of non-Holstein bulls.
Genetic parameters in the evaluation	$h^2 = 0.25$, PE = 0.25 of the phenotypic variance for milk, fat, and protein (See Appendix I)
System validation	Genetic trends are computed after each evaluation. Comparison of first-parity and all-parity trends. Comparison of first crop and second crop bull evaluations. Comparison of parent and progeny evaluations.
Expression of genetic evaluations	Kg PD for milk, fat, and protein, PD % for fat and protein percent.
Genetic (reference) base **Next base change**	Fixed base, mean PD of all recorded cows born in 1990 = 0. Next base change in 2000.
Criteria for official publication of evaluations	Reliability > 0.5
Number of evaluations / publications per year	Two evaluations per year in April, and October.
Use in production / total merit index	PD96 = -0.274*(PD milk) + 6.41*(PD fat) +34.85*(PD protein) - 300*(PD SCS)
Anticipated changes in the near future	Inclusion of herdlife in the breeding index? Date unknown
Key reference on methodology applied	Weller, J. I., Israel, C., and Ezra, E. (1994) A simple procedure for obtaining approximate interim cow solutions from an animal model. *J. Dairy Sci.* **77**; 1126-1131.
Key organization: name, address, phone, fax, e-mail, web site	Joel Ira Weller Institute of Animal Sciences, A. R. O., The Volcani Center, P. O. Box 6, Bet Dagan 50250 ISRAEL E-mail: weller@agri.huji.ac.il

Phone : 972-8-9484430
Fax : 972-8-9470587
http://www.agri.huji.ac.il/~weller

Appendix I

Trait	h^2	Model
Milk, fat, protein	0.25	iam (with lactation number)
SCC	0.15	-"-
Herd life	0.10	-"-
Dystosyia, calf mortality	0.05	linear model with sire mgs effects in the model
Fertility	0.03	iam
Type		sire model 17 traits.
Selection Index		pd96 = -0.274*m + 6.41*f + 34.85*p - 300*scc

COUNTRY: Israel

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

		Milk		Fat		Protein		Fat %		Protein %	
YB	NB	X	SD	X	SD	X	SD	X	SD	X	SD
Breed					Israeli-Holstein						
1985	39	-224.771		0.0422		-3.9561		0.07456		0.030943	
1986	31	-124.495		0.5616		-1.4980		0.04750		0.024300	
1987	38	-126.467		0.1374		1.2297		0.04259		0.053658	
1988	49	-55.563		3.6033		1.7966		0.05523		0.036362	
1989	33	5.420		5.2219		2.1923		0.05416		0.022257	
1990	32	-35.770		4.0949		1.8151		0.05600		0.031383	
1991	41	124.575		8.5172		8.6139		0.04908		0.051296	
1992	42	-106.666		8.1044		6.0166		0.11948		0.096589	
1993	53	-154.223		5.7367		4.2691		0.11047		0.094281	
1994	47	-8.334		8.0830		8.0523		0.08686		0.085905	

COUNTRY: Israel

Average of adjusted production records (kg, %) included in the most recent evaluation run, by daughters' year of calving (YC), number of cows (NC) and breed.

		Milk		Fat		Protein		Fat %		Protein %	
YC	NC	X	SD	X	SD	X	SD	X	SD	X	SD
Breed					Israeli-Holstein						
1988		9203		296		283		3.23		3.09	
1989		9231		298		282		3.24		3.06	
1990		9496		292		284		3.09		3.00	
1991		9704		291		286		3.01		2.96	
1992		10,011		307		299		3.08		3.00	
1993		10,131		313		300		3.11		2.97	
1994		10,195		320		303		3.15		2.99	
1995		10,665		340		318		3.20		2.99	
1996		10,665		346		321		3.26		3.02	
1997		10,891		361		333		3.33		3.07	
1998		10,901		358		335		3.30		3.08	