### FACTS ON SIRE EVALUATION PROCEDURES APPLIED FOR NON-PRODUCTION TRAITS

#### COUNTRY: ISRAEL

| Expression of proof | **a**) PD (days,%)
|                     | **b**) PD (%) for sire of cow and sire of calf (Expressed as Calving index)
|                     | **c,d**) PD (%) (Expressed as Mastitis index and Culling index)
| Genetic (reference) base | **a-c**) Fixed, first lactation initiated in 1987
|                     | **d**) Rolling, from 1978 to present
| Criteria for official publication of sire proofs | Rpt ≥ 0.50
| Number of evaluations/publications per year | -
| Use in total merit index | No
| Name, address and fax number of organization responsible for sire evaluation and publication | Evaluation programs:
Animal Genetics and Breeding Unit, Institute of Animal sciences, Volcani Research Center, P.O. Box 6, Bet Dagan 50-250 Israel
Processing and publishing:
Israeli Cattle Breeders' Assoc. Ltd
25 Arlozorov St.
Tel Aviv 62488, Israel

### FACTS ON SIRE EVALUATION PROCEDURES APPLIED FOR NON-PRODUCTION TRAITS

#### COUNTRY: ITALY

| Trait(s): | **a**) Calving performance
|           | **b**) Milking speed
|           | **c**) Udder conformation
|           | **OTHER**) Other body conformation traits
| Breed(s): | **I**) Black and White (a,c,d)
|           | **III**) Italian Brown (b-d)
| Trait definition and unit(s) of measurement | **a**) Four classes calving difficulty combined with perinatal mortality
|           | **b**) Total time for milking (sec) and percentage of milk produced in fore udder
|           | **c,d**) Linear scoring (1 to 50) for up to 16 traits
| Method of measuring and collecting data | **a**) Farmer subjective score
|           | **b**) Determination by special milking equipment
|           | **c,d**) Expert classifiers
| Time period for data inclusion | **a**) Records since 1987
|           | **b**) Records since 1975
|           | **c,d**) Records since 1985
| Age groups considered | **a,b**) All
|           | **c,d**) **I**) First lactation; **III**) Age at calving 18-36 mo.
| Genetic parameters assumed | **a**) h²: 0.10; **b**) 0.20
|           | **c,d**) h²: **I**) 0.15 - 0.38; **II**) 0.07 - 0.24
| Sire categories evaluated | All (AI and NS bulls)
| Environmental effects considered by pre-adjustment | None
| by evaluation model | a) Herd*year, sex of calf*age of dam*season of calving
|                     | b) Herd*milking equipment, parity, stage of lactation, technician, total milk produced.
|                     | c) **I**) Classifier*herd*year*age*stage of lactation; **II**) Age, Stage of lactation, classifier
|                     | d) **III**) Age, Stage of lactation, hours from last milking to inspection, classifier
| Base for age adjustment | -
| Use of genetic groups and/or relationship | **a,b**) None
|           | **c,d**) All relationship among sires and cows, groups of phantom parents
| Method of evaluation | **a,b**) ST BLUP SM
|           | **c,d**) ST BLUP AM
| Expression of proof | EBV, standardized with mean = 0 and SD = 1
### FACTS ON SIRE EVALUATION PROCEDURES APPLIED FOR NON-PRODUCTION TRAITS

**COUNTRY: ITALY**

| Genetic (reference) base | a) Average of all published bulls.  
b) Average of bulls born in 1980  
c,d) II Average of EBV of cows born in 1985; [II] Fixed base, average of cows born in 1983 |
|-------------------------|-----------------------------------------------------------------------------------------------|
| Criteria for official publication of sire proofs | a) Bulls with at least 100 calving in 20 herds  
b) Bulls with at least 5 daughters  
c,d) Bulls with at least 10 daughters in 5 herds |
| Number of evaluations/publications per year | Twice a year |
| Use in total merit index | [II] No; [III] Yes |
| Name, address and fax number of organization responsible for sire evaluation and publication | [II] ANAFI (Associazione Nazionale Allevatori Friulani Italiana) via Bergamo 292,  
26100 Cremona, Italy  
Tel: 39-372-41 25 21  
Fax: 39-372-2 96 70  
[III] Associazione Nazionale Allevatori Bovini Della Razza Bruna  
Loc. Ferlina, 204  
37012 BUSSOLENGO/VR, Italy  
Tel: (045) 6701990  
Fax: (045) 7156655 |
20-21  
evaluation of dairy cattle in the United States. Journal of Dairy Science, 71 (suppl. 2) 54-69 |

### FACTS ON SIRE EVALUATION PROCEDURES APPLIED FOR NON-PRODUCTION TRAITS

**COUNTRY: THE NETHERLANDS**

| Trait(s): | REPRODUCTION  
a) Calving performance  
MILKABILITY  
b) Milking speed  
LOCOMOTION  
c) Udder conformation  
Feet and legs  
OTHER  
e) Other body conformation traits  
f) Temperament |
| Breed(s): | Black and White, Dual Purpose (MRY) |
| Trait definition and unit(s) of measurement | a) Scores for calving difficulty (1 to 4); gestation length in days and birth weight scored in 5 kg. classes  
b) Average speed (kg/min) of milking (sec)  
c-e) In total there are 19 conformation traits scored on a linear scale (1 to 9) or (65-99)  
f) Temperament during milking, scored (1 to 4) |
| Method of measuring and collecting data | a) Calving difficulty and birth weight scored by the farmer, Gestation length computed from insemination date and date of calving  
b,f) Observed by supervisors for daughters of sires that are appointed by AI organizations  
c-e) There are two classification standards, dairy and dual. Herds are visited every 8 months (round) by special classifiers. |
| Time period for data inclusion | a) Since 1986  
b,f) Since 1980  
c-e) Since 1981 |
| Age groups considered | a) Mostly second calvers  
b-f) Heifers |
| Genetic parameters assumed | a) h^2: Calving difficulty=0.11; Gestation length=0.39; Birth weight=0.17  
b,f) h^2: 0.50  
c-e) h^2: 0.30 |
| Sire categories evaluated | a,b,f) AI bulls  
c-e) All bulls |