

Country

Spain

Trait category:

Conformation

Individual trait(s):

Udder

Locomotion

Other

Calculation & publication:

Confederacion de Asociaciones de Frisona Española (CONAFE)

Ctra de Andalucía, Km.23,600

28340 Valdemoro (Madrid), Spain

Telephone +34 1 896 22 62

Facsimile +34 1 895 14 71

E-mail jpena@ibm.net

Assessment:

Area Mejora Animal CIT-INIA

Apartado 8111

28080 Madrid, Spain

Facsimile +34 1 357 22 93

E-mail MJC@cit.inia.es

SPAIN

Conformation traits	Udder: mammary system, fore udder, rear udder Locomotion: feet & legs Other: size, final score, corporal capacity, dairy character, rump
Breed(s)	Holstein Friesian
Trait definition and unit(s) of measuring	Size is scored on a linear 1-9 point scale. Final score is scored on a 65-90 point scale. Remaining traits are scored in 18 categories, which are transformed to a continuous scale by Snell Transformation
Method of measuring and collecting data	Scored by classifier, herds are visited in a 9-10 month period
Time period for data inclusion	Since 1984
Age groups	All ages, but mostly 1 st calvers
Genetic parameters	$h^2_{\text{udder traits}} = 0.24 \text{ to } 0.27$ $h^2_{\text{locomotion traits}} = 0.10$ $h^2_{\text{other traits}} = 0.20 \text{ to } 0.36$
Sire categories	AI-sires and registered NS-sires
Environmental effects pre-adjustment evaluation model	None Herd x visit x classifier, lactation number x age (76 categories), stage of lactation (11 classes)
Base for age adjustment	None
Use of genetic groups and/or relationships	Full relationship matrix
Method (model) of genetic evaluation	ST BLUP AM
System validation	Classifiers are monitored to promote consistency between them
Expression of proof	Standardized breeding values so that 95% of bull proofs are between -15 and +15, higher values are more desirable
Genetic (reference) base	Fixed base of the cows born in 1990
Criteria for official publication of sire proofs	≥ 20 daughters in 10 herds
Number of evaluations/publications per year	Two; January, July
Use in total merit index	ICO: $4 \times \text{kg fat} + 2 \times \text{kg protein} + 280 \times \% \text{ protein} +$ $4 \times \text{feet \& legs} + 16 \times \text{mammary system} + 16 \times \text{final score}$
Key reference on methodology applied	Pena, J., R. Alenda, M.J. Carabaño & J.J. Jurado, 1992. Evaluación genética nacional del vacuno frisón español. Bovinotecnia 7: 187