

Genetic parameters of Hungarian Sport Horse. Mare performance tests

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Abstract :

Results were evaluated of the performance tests of Hungarian Sport Horse mares from the period of 1993-2009, covering scores of 593 three-year-old and 299 four-year-old mares, 109 of which were tested at both ages. Seventeen traits were scored, covering ten conformation, three free jumping performance and four movement analysis traits. Breeding value estimation was based on BLUP animal model. Test year, age and owner were included in the model as fixed effects. Variance components were estimated with VCE-6 software package. Heritabilities ranged from 0.32 (frame) to 0.50 (saddle region) for conformation traits, from 0.39 (jumping style) to 0.49 (jumping ability and jumping skill) for free jumping traits and from 0.20 (walk) to 0.48 (canter) for movement traits. Conformation overall impression showed close genetic correlations (0.66-0.97) with scores of other conformation traits. Genetic correlations among free jumping traits varied from 0.82 and 0.98. Genetic correlation for movement analysis traits ranged from 0.32 to 0.75. Genetic correlations among free jumping and movement analysis traits were positive, though standard errors were high in most cases.

Key Word :

genetic parameters, horse breeding, mares'performance, sport horse

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