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(HOLST)**

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Latest update: November, 10th 2003

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1. BREEDING POPULATION

Breed(s)	Holsteiner	
Total number of breeding stallions used for mating	221 247	(1998) (2003)
Total number of mares covered	6,546 6,092	(1998) (2002)
Number of mares covered by AI	4,621	(1998)
Number of foals registered	3,153 3,650	(1998) (2003)
Format of ID numbers of horses	21	
Does the studbook use the unique equine life-number (UELN)? (yes/no)	no	

2. BREEDING OBJECTIVE

Breeding objective (riding horses) (in no more than 50 words)	An athletic long-shaped and expressive riding horse with the ability for sport performance at national and international level, especially in show jumping. Desired is a powerful elastic and good jumping, showing good control and intelligence. The movements have to show the typical knee action of the Holstein horse.
Traits of importance - high: - medium: - low:	show-jumping, health conformation, gaits, eventing, fertility driving, dressage
Specific breeding policies	special breeding programme for show jumping

3. TESTING PROCEDURES AND DATA RECORDING

Stallion testing procedure

Disciplines	dressage and show jumping
Name of test	station performance test
Is this test a licensing test? (yes/no)	yes. At least 80 index points are required or sub-index with at least 100 points.
Annual number of tested horses	18
Number of test locations	9
Average age of tested horses (years)	3-4
Length of test	100 days
Name of recorded variables	<ul style="list-style-type: none"> - character - temperament - willingness to work - conformation - free jumping - parcours jumping - jumping ability - riding ability - walk - trot - gallop
Scale of recorded traits	1 to 10 points with increments of 1.

Young horse testing procedures

Disciplines	dressage and show jumping
Name of test	field performance test for mares
Is this test a licensing test? (yes/no)	no
Sex of horses	mares
Annual number of tested horses	392
Number of test locations	8
Average age of tested horses (years)	3
Length of test	1 day
Name of recorded variables	<ul style="list-style-type: none"> - free jumping - trot - gallop - walk - riding ability
Scale of recorded traits	1 to 10 points with increments of 1.

Disciplines	dressage and show jumping
Name of test	station performance test for mares
Is this test a licensing test? (yes/no)	yes
Sex of horses	mares
Annual number of tested horses	95
Number of test locations	2
Average age of tested horses (years)	3-4
Length of test	14 days
Name of recorded variables	<ul style="list-style-type: none"> - character - temperament - willingness to work - conformation - free jumping - parcours jumping - jumping ability - riding ability - walk - trot - gallop
Scale of recorded traits	1 to 10 points with increments of 1.

Conformation scoring systems

Discipline	conformation
Name of test	studbook inspection
Is this test a licensing test? (yes/no)	<p>yes.</p> <p>until year of birth 1994:</p> <p>Main Studbook (H): at least 160 cm, in each of the 7 criteria at least a score of 5, in type at least a score of 6, the sum of scores must be at least 42 points, at least 4 generations of Holstein descendants</p> <p>Studbook (S): at least 158 cm, in each of the 7 criteria at least a score of 4, the sum of scores must be at least 35 points, at least 4 generations of Holstein descendants</p> <p>Pre-Studbook (V): in each of the 7 criteria at least a score of 4, in type at least a score of 5, at least 3 generations of Holstein descendants</p> <p>since year of birth 1995:</p> <p>Holsteiner mares are approved in the 'Zuchtbuch', with is a differentiation based on a bonus system</p> <p>Bonus I (low level, Bezirksprämie): at least 160 cm, in type at least a score of 7, the sum of scores must be at least 52 points, at least 5 generations of Holstein descendants</p> <p>Bonus II (medium level, Verbandsprämie): at least 160 cm, in type at least a score of 8, the sum of scores must be at least 47 points, at least 5 generations of Holstein descendants</p> <p>Bonus III (highest level, Staatsprämie): such as bonus II, but in addition a successful mare performance test (at least an average score of 7 points)</p>
Sex of horses	mares
Annual number of tested horses	1055 (1999)
Number of test locations	
Average age of tested horses (years)	3 (798), 4 and older (257)
Length of test	
Name of recorded variables (scale traits)	<p>until year of birth 1994:</p> <p>type</p> <p>saddle part, back, croup / topline</p> <p>chest / deepness</p> <p>correctness of fore legs</p> <p>correctness of hind legs</p> <p>correctness of gaits</p> <p>push and impulsion</p>

	since year of birth 1995: type saddle part, back, croup / topline correctness of forelegs correctness of hind legs walk trot gallop
Scale of recorded traits	scores on a range 1 to 10 with increments of 1.

4. GENETIC EVALUATION

Studbook entry traits on conformation, gaits and jumping

Traits	conformation traits														
Origin of data	results at studbook entrance of mares and studbook entry														
Method of evaluation	multivariate BLUP animal model														
Effects considered by statistical model	<ul style="list-style-type: none"> - year of scoring - season of scoring - district of owner - class of age of the mare 														
Heritabilities	<table style="width: 100%; border-collapse: collapse;"> <tr><td>type</td><td style="text-align: right;">0.41</td></tr> <tr><td>topline</td><td style="text-align: right;">0.23</td></tr> <tr><td>fore legs</td><td style="text-align: right;">0.12</td></tr> <tr><td>hindlegs</td><td style="text-align: right;">0.11</td></tr> <tr><td>fore legs</td><td style="text-align: right;">0.16</td></tr> <tr><td>correctness of natural gaits</td><td style="text-align: right;">0.19</td></tr> <tr><td>push and impulsion</td><td style="text-align: right;">0.25</td></tr> </table>	type	0.41	topline	0.23	fore legs	0.12	hindlegs	0.11	fore legs	0.16	correctness of natural gaits	0.19	push and impulsion	0.25
type	0.41														
topline	0.23														
fore legs	0.12														
hindlegs	0.11														
fore legs	0.16														
correctness of natural gaits	0.19														
push and impulsion	0.25														
Publication scale (mean and s.d.)	100 ± 20														
Definition of base population															
What breeding values are published?	Breeding values of stallions are published when they have at least 10 daughters are approved in the breeding studbook														
Where are breeding values published?	Internet Website of Chamber of Agriculture: www.lwk-sh.de/start_i.php3 Follow: Fachinfo, Tierproduktion, Zuchtwerte Hengste. Breeding values are listed in zuchtwerte.pdf.														
Key reference	Nissen, T. and S. Reinicke: 3. Pferde-Workshop, Uelzen 2002														

Traits	mare performance
Origin of data	results of mare performance test
Method of evaluation	multivariate BLUP animal model
Effects considered by statistical model	- year of testing - place of testing - stage of testing
Heritabilities	trot 0.31 canter 0.29 walk 0.31 riding ability 0.32 free jumping 0.41
Publication scale (mean and s.d.)	100 ± 20
Definition of base population	
What breeding values are published?	Breeding values of stallions are published when they have at least 5 daughters are tested in the mare performance test
Where are breeding values published?	certificate to the owner at the end of each year
Key reference	Nissen, T. and S. Reinicke: 3. Pferde-Workshop, Uelzen 2002