

## SWEDISH WARMBLOOD ASSOCIATION (SWB)

Postal address: ASVH  
Stambokskontoret  
24032 Flyinge  
Sweden

Telephone: + 46 46 646 50

Facsimile: + 46 46 527 24

E-mail: [info@asvh.se](mailto:info@asvh.se)

Webpage: <http://www.asvh.se/>

Latest update: November 3rd, 2003

### 1. BREEDING POPULATION

### 2. BREEDING OBJECTIVE

### 3. TESTING PROCEDURES AND DATA RECORDING

Stallion testing procedures  
Young horse testing procedures  
Competition results

### 4. GENETIC EVALUATION

Show-jumping  
Dressage  
Conformation

## 1. BREEDING POPULATION

Breed(s)	Swedish Warmblood
Total number of breeding stallions used for mating	211 (2002)
Total number of mares covered	4940 (2002)
Number of mares covered by AI	3804 (2002)
Number of foals registered	3190 (2002)
Format of ID numbers of horses	Breed code - birth year – sequence no: cc-yy-nnnn
Does the studbook use the unique equine lifenumber (UELN)? (yes/no)	yes, since 2001 Country code-breed-IDnumber (with an extra 0 in the middle): CCCBBBNNNN0NNNN

## 2. BREEDING OBJECTIVE

Breeding objective (in no more than 50 words)	A noble, correct and durable sporthorse which through its temperament, rideability, good movements and/or jumping ability is expected to be internationally competitive in dressage, show jumping or eventing
Traits of importance (in order of importance) - high: - medium: - low:	Dressage, show jumping, behaviour, health, conformation and gaits Eventing ability, driving, fertility
Specific breeding policies	Eventing horses are mainly produced by using thoroughbred stallions with warmblood mares.

## 3. TESTING PROCEDURES AND DATA RECORDING

### *Stallion testing procedures*

Discipline	show jumping and dressage
Name of test	<b>Stallion Performance Test</b>
Is this test a licensing test? (Y/N)	Y
Annual number of tested horses	~ 40
Number of test locations	1
Average age of tested horses (years)	4-5
Length of test	8 days
Name of recorded variables	Veterinary examination – exclusion for defects Conformation Gaits under rider (walk, trot, canter, temperament and potential for dressage) Test riders dressage Free jumping (3- and 4 year-olds) - technique and capacity - temperament and potential for show jumping jumping under rider (4- and 5 year-olds) - technique and capacity - temperament and potential for show jumping Test riders jumping
Scale of recorded traits	1-10
Remarks	Tested stallions are approved according to a minimum index level for either dressage or jumping. Stallions may also be approved according to competition results at 5 years of age and later.

### Young horse testing procedures

Discipline	Dressage and show jumping
Name of test	<b>Three year-old test</b>
Is this test a licensing test? (Y/N)	N
Sex of horses	Mares, geldings, stallions
Annual number of tested horses	About 900
Number of test locations	About 20
Average age of tested horses (years)	3
Length of test	1 day
Name of recorded variables	Conformation & gaits Free jumping - technique and capacity - temperament and potential for show jumping
Scale of recorded traits	1-10
Remarks	To achieve a diploma degree, it is required that the horse performs a rideability test

Discipline	Dressage and show jumping
Name of test	<b>Riding horse quality test</b>
Is this test a licensing test? (Y/N)	N
Sex of horses	Mares, geldings, stallions
Annual number of tested horses	About 600
Number of test locations	About 15
Average age of tested horses (years)	4 (the test is also open for 5 year-old mares who had foal at the age of 4)
Length of test	1 day
Name of recorded variables (scale traits)	Conformation Gaits under rider - walk - trot - canter - temperament and potential Jumping (optional free or under rider) - technique and capacity - temperament and potential Withers height Health (medical) Health (orthopedic)
Scale of recorded traits	1-10 (except withers height)

*Competition results*

Type of competition (including discipline and levels)	Show jumping, Breeders Trophy, for 5- and 6-year olds in separate classes. 1.10-1.20 for 5-year olds 1.20-1.30 for 6-year olds
Sex of horses	Mares, geldings, stallions
Number of horses in competition (per year)	About 280
Number of competition events (per year)	
Number of starts	About 170 (5-year old horses) About 110 (6-year old horses)
Name of recorded traits	No. of placings and final rank
Scale of recorded traits	

Type of competition (including discipline and levels)	Dressage, Breeders Trophy, for 5- and 6-year olds in separate classes. Level L for 5-year olds Level L - M for 6-year olds
Sex of horses	Mares, geldings, stallions
Number of horses in competition (per year)	About 120 (5-year old horses) About 70 (6-year old horses)
Number of competition events (per year)	
Number of starts	About 200
Name of recorded traits	Percentage of max. score
Scale of recorded traits	1-100 %

## 4. GENETIC EVALUATION

### *conformation*

Traits	Type Head, neck and body Extremities
Origin of data	Riding Horse Quality Test (RHQT)
Method of evaluation	BLUP Multi-trait Animal model
Effects considered by statistical model	Year and place of evaluation (fixed) Sex (fixed) Age (fixed) Animal (random)
Heritabilities	Type: 0.40 Head, neck and body: 0.40 Extremities: 0.10
Genetic correlation	$r_g$ with dressage: 0.50 $r_g$ with jumping: 0.10
Publication scale (mean and s.d.)	Breeding values are standardised on a scale with mean 100 and standard deviation of 20.
Definition of base population	Average breeding value for stallions born 1972-1981 who had at least 15 tested progeny.
What breeding values are published?	B.V. for stallions that had at least 15 tested progeny. B.V. for mares that have been tested in the RHQT and/or have at least one tested progeny.
Where are breeding values published?	<a href="http://www.asvh.se">www.asvh.se</a>
Key references	<p>Arnasson, Th., Philipsson, G. and Philipsson, J. <i>Rapport om BLUP-avelsvärdering baserad på kvalitetsbedömningsresultat för fyraåriga ridhästar 1973-2000.</i></p> <p>Gerber Olsson, E., Arnasson, Th., Philipsson, J. 1997. <i>Procedures for genetic evaluation of conformation and performance of riding horses in Sweden.</i> 48<sup>th</sup> Ann. Meet. EAAP, Vienna, Austria, August. 9pp.</p> <p>Gerber Olsson, E., Arnasson, Th., Nasholm, A., Philipsson, J. 2000. Genetic parameters for traits at performance test of stallions and correlations with traits at progeny tests in Swedish warmblood horses. <i>Livest. Prod. Sci.</i> 65:81-89</p>

*show-jumping*

Traits	Jumping technique and capacity Temperament and potential for show jumping
Origin of data	Riding Horse Quality Test (RHQT)
Method of evaluation	BLUP Multi-trait Animal model
Effects considered by statistical model	Year and place of evaluation (fixed) Sex (fixed) Age (fixed) Animal (random)
Heritabilities	Jumping technique and ability: 0.2 Temperament and potential for show jumping: 0.15
Genetic correlation	$r_g$ with conformation: 0.10 $r_g$ with dressage: 0.18
Repeatabilities	
Publication scale (mean and s.d.)	Breeding values are standardised on a scale with mean 100 and standard deviation of 20
Definition of base population	Average breeding value for stallions born 1972-1981 who had at least 15 tested progeny.
What breeding values are published?	B.V. for stallions that had at least 15 tested progeny B.V. for mares that have been tested in the RHQT and/or have at least one tested progeny
Where are breeding values published?	<a href="http://www.asvh.se">www.asvh.se</a>
Key reference	Arnasson, Th., Philipsson, G. and Philipsson, J. <i>Rapport om BLUP-avelsvärdering baserad på kvalitetsbedömningsresultat för fyraåriga ridhästar 1973-2000.</i>  Gerber Olsson, E., Arnasson, Th., Philipsson, J. 1997. <i>Procedures for genetic evaluation of conformation and performance of riding horses in Sweden.</i> 48 <sup>th</sup> Ann. Meet. EAAP, Vienna, Austria, August. 9pp.  Gerber Olsson, E., Arnasson, Th., Nasholm, A., Philipsson, J. 2000. Genetic parameters for traits at performance test of stallions and correlations with traits at progeny tests in Swedish warmblood horses. <i>Livest. Prod. Sci.</i> 65:81-89

dressage

Traits	Gaits (walk, trot, canter) Temperament and potential for dressage
Origin of data	Riding Horse Quality Test (RHQT)
Method of evaluation	BLUP Multi-trait Animal model
Effects considered by statistical model	Year and place of evaluation (fixed) Sex (fixed) Age (fixed) Animal (random)
Heritabilities	Gaits: 0.35 Temperament and potential: 0.30
Genetic correlation	$r_g$ with conformation: 0.50 $r_g$ with jumping: 0.18
Repeatabilities	
Publication scale (mean and s.d.)	Breeding values are standardised on a scale with mean 100 and standard deviation of 20
Definition of base population	Average breeding value for stallions born 1972-1981 who had at least 15 tested progeny.
What breeding values are published?	B.v. for stallions that had at least 15 tested progeny B.v. for mares that have been tested in the RHQT and/or have at least one tested progeny
Where are breeding values published?	<a href="http://www.asvh.se">www.asvh.se</a>
Key reference	Arnasson, Th., Philipsson, G. and Philipsson, J. <i>Rapport om BLUP-avelsvärdering baserad på kvalitetsbedömningsresultat för fyraåriga ridhästar 1973-2000.</i>  Gerber Olsson, E., Arnasson, Th., Philipsson, J. 1997. <i>Procedures for genetic evaluation of conformation and performance of riding horses in Sweden.</i> 48 <sup>th</sup> Ann. Meet. EAAP, Vienna, Austria, August. 9pp.  Gerber Olsson, E., Arnasson, Th., Nasholm, A., Philipsson, J. 2000. genetic parameters for traits at performance test of stallions and correlations with traits at progeny tests in Swedish warmblood horses. <i>Livest. Prod. Sci.</i> 65:81-89