



1998 BLUP Indexes based on Swedish Quality Testing.

by Bo Crabo

Dr. Jan Philipsson, professor of Animal Breeding and formerly president of the Swedish Warmblood Association, has recently released the updated BLUP-indexes for Swedish Warmblood stallions in Sweden. A selection of these indexes are presented in the following.

BLUP (Best Linear Unbiased Prediction) is one of the latest and most accurate methods of calculating how well a sire transmits his traits to the offspring. Initiated by Dr. Philipsson for horses, BLUP indexes are calculated by various warmblood registries in quite different ways; each breed has its own formula and database.

BLUP-indexes are not "holy numbers" and it is necessary to understand what traits are included and how those traits were obtained for the Swedish BLUP. In the indexes presented here, 4-year old stallions and geldings, and 4 and 5 year-old mares (5 years if they had a foal as 4-year-olds), essentially went through a stallion-type performance test consisting of evaluation in hand (Conformation index), free-jumping and jumping under saddle (Jumping index), and gaits under saddle (Gaits index). To date, more than 13,000 horses have been tested to provide the data which allows us to compare the progeny of different stallions >adjusted= for the quality of the dam of each offspring. The BLUP indexes are recalculated every year as new data becomes available.

For each BLUP index, the number 100 is given to the average stallion, and 68% of all the stallions will have scores between 90 and 110. Only the top 5% of stallions will have scores over 120. There is a total index, also. The accuracy of an individual stallion's index depends on the number of his offspring tested, and the accuracy is indicated by an >average error= statistic [R(TI)].

Subscores are new for this year.

The conformation index is subdivided in

- (1) type and body conformation
- (2) legs
- (3) gaits in hand.

The jumping index is subdivided in

- (1) technique
- (2) temperament = willingness to jump.

The gaits index is subdivided in

- (1) the walk
- (2) the trot
- (3) the canter
- (4) temperament = rideability.

Dr. Philipsson points out in his comments that the high conformation index of for example Amiral, is due to his offspring's very good legs (130) and gaits (164) rather than type (107). Master has had sufficient number of offspring to make the list in 1998 and they show, not unexpectedly, very good gaits.

It is perhaps worth mentioning that the Swedish BLUP indexes based on Quality testing is different from BLUPs based on show results. Most notably, Gaspari offspring has not done as well in the Quality tests as they have in the upper division shows. Some forms of stamina and ability to do advanced performance cannot be measured easily in young horses.

The Swedish BLUP indexes are not at all comparable to the German BLUP indexes. Some years ago the Germans used an index that included and gave too much emphasis on the stallion's own show performance. A stallion as Karin Rehbein's Donnerhall then ended up over 200! Presently, the German indexes are corrected for the rider's skill. The top numbers then are given to horses that fit middle of the run riders. So, use each type of BLUP index with caution and for what they are and they will prove to be very useful to the breeders.

Unfortunately, there are no useful data collected in North America that can be used for progeny evaluation. SWANA along with other registries in the Federation of North American Sports Horse Registries are trying to push AHSA to begin collecting show results which would be the necessary beginning.

The 1998 BLUP indexes are shown for 11 stallions. These stallions were selected because they are or have recently been available to North American breeders via frozen semen. There are currently more than 215 stallions in Sweden with sufficient offspring to have BLUP indexes.

Name - Year of Birth	Foals tested	BLUP Indexes based on 1998 results									R(TI)	
		Conformation			Jumping		Gaits					Total
		Type	Legs	Gaits in Hand	Technique	Temperament	Walk	Trot	Canter	Rideability		
<u>Amiral 764</u> - 85	204	159			96		190				149	0.98
		107	130	164	92	100	183	160	156	194		
<u>Artist 765</u> - 85	42	124			147		105				126	0.90
		112	115	126	138	154	138	101	80	102		
<u>Bellini 817</u> - 87	69	143			116		133				131	0.93
		125	113	140	123	108	116	132	122	142		
<u>Chapman</u> <u>757</u> - 82	189	135			98		165				133	0.97
		114	114	135	100	96	140	161	143	166		
<u>Electro</u> <u>778</u> - 86	72	111			174		101				129	0.93
		121	125	102	169	177	78	102	119	105		
<u>Gauguin de</u> <u>Lully 813</u> - 75	64	129			90		132				117	0.92
		90	139	142	80	99	130	121	123	130		
<u>Irco Mena</u> <u>763</u> - 82	56	90			159		92				114	0.92
		96	119	94	162	156	91	82	114	83		

<u>Maraton</u> <u>600 - 76</u>	336	126			120		130				126	0.99
		98	125	130	119	119	128	118	119	131		
<u>Master</u> <u>850 - 88</u>	24	159			94		172				142	0.85
		122	115	163	98	92	163	161	147	185		
<u>Robin Z</u> <u>723 - 83</u>	220	106			182		119				136	0.98
		102	100	106	183	179	119	105	122	115		
<u>Strauss</u> <u>689 - 81</u>	28	128			129		129				129	0.88
		130	112	124	125	132	150	117	100	130		



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