

## **THE SWEDISH SPORT HORSE**

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The first Equestrian Olympic Games were organized in Stockholm in 1912. Riding as well as breeding of the Swedish Warmblood (SWB) has a long tradition in Sweden. The army had enormous amounts of horses in those days but the equestrian sport was quite small, as only officers and gentlemen were allowed to participate in official competitions. Sweden was, however, successful also internationally and is still today ranked as the second best nation in the world with respect to the number of Olympic medals won.

The horse industry in Sweden has now fully recovered from the enormous drop in the population after the second world-war. About 550 000 horses in 1945 decreased to 75 000 in early seventies. During these years the role of the horse completely changed from use in agriculture, forestry and army to sport and pleasure. People from all classes of society, especially young girls, became gradually more and more interested in horse activities.

The SWB is today bred to be “a noble correct and durable sport horse, which through its temperament, ride-ability, good movements and/or jumping is expected to be internationally competitive in dressage, show-jumping and three-day-eventing” The milestones in development of this goal during the last 30 years will be presented here.

The SWB has by tradition been a very successful international dressage and three-day-event horse. At present it is strikingly successful in jumping too, owing to an increased interest in breeding jumpers during the last twenty years. A new breeding policy for specialized selection of talent for dressage and jumping is included in this presentation.

### **THE SWEDISH HORSE INDUSTRY**

The number of horses per capita is second only to Iceland, the largest in Europe. About 250 000 horses utilize about 250 000 hectares of land. The development in the equine sector is steadily improving and the horse has in many respects become an important resource in modern society.

Equine activities are of major public interest in Sweden. Out of 9 millions inhabitants, more than 500 000 people are involved in the horse-riding sector and about 3 million people annually visit harness and flat-racing tracks. After soccer football, riding is the largest sport in Sweden.

Socially, the horse is thus of great importance. Riding-schools fill an important role for recreation and to teach young and old people of both sexes to interact with horses. For people suffering from different handicaps, riding has shown to be of great importance. Also internationally, riders and drivers had great success in sport with horses produced in Sweden.

When considering the total turnover of the equine-industry, paramutual betting included, the horse sector is of great economic importance with a major growth potential. As regards breeding, the economy is not so positive despite a distinct improvement of the quality of the horses. A further improvement in quality is extremely important as really good horses are easily sold at very high prices.

By tradition, equine research in Sweden is considered to be of high standard, even if it always has been quite difficult to obtain financial support. The University of Agricultural Sciences in Upsala is the main-center of equine research. Its Hippo Campus is coordinating projects and keeping the industry informed. Cooperation between the industry and the university has recently been formalized, resulting in a new type of equine research financing.

The state supports the horse-industry through a national horse council, (the National Foundation) with income from horse gaming. Most of this money supports university programs in equine studies especially designed for the education of stable managers, riding-instructors and trainers. These courses are located at Flyinge (the former State Stallion Depot and Stud), Strömsholm (the former Army Riding School) and Wången (the former Center of the North Swedish Horse). The National Foundation also supports equine research and equine clinics at most racetracks. Many agricultural and other schools have attractive horse-programs at college level, as well. Plans for European cooperation in equine education among the national riding schools of Strömsholm in Sweden, Warendorf in Germany, Saumur in France, and other centers are in progress.

## **BREEDING DEVELOPMENT**

The light Swedish cavalry horse has been changed into a modern sport horse during the last 30 years, in accordance to the breeding goal presented above. The milestones of the process have been:

### **Private breeding initiative**

In 1972 a group of young scientists, among them the author, within the disciplines of agriculture and veterinary medicine founded a regional breeding club (MÄLARDALENS VARMBLODSKLUBB) and created a new breeding strategy for the SWB. Evaluation of the quality of the horse had until then been based on conformation. A special Riding Horse Quality Test for four-year-old SWB mares, geldings and stallions was developed to evaluate their health, gaits under saddle and jumping. More than 15 000 young horses have since then been quality-tested according to this method. These data are today of a fantastic value for establishing accurate breeding values of stallions and mares using modern statistical methods (BLUP).

### **Frozen semen import**

In 1975 a test with artificial insemination with frozen semen was carried out. Fourteen mares were inseminated with semen from two stallions (Dirk and Wedekind) imported from the German State Stud, Celle. Four foals only were born but a lot of new knowledge was generated for future trials.

### **Stallion performance-tests**

In 1977 the central Swedish Warmblood Association (ASVH), founded in 1928, introduced a new model of short, repeated performance tests of four- and five-year-old stallion prospects. The test-regime was based on experiences from the mentioned quality-tests, which became popular with the breeders and was adopted nationally. However, this stallion-test was very different from the 100–days tests used for testing of stallions in many other countries. The international reactions were therefore quite naturally negative. Today, however, we know that the results obtained by the Swedish short tests are equal to , or better, than those obtained from the long tests. In addition, the owners themselves have full control of who should train and ride their valuable prospects.

### **National championships**

In 1977 national championships for four-year old mares, geldings and stallions were introduced to stimulate early training regimes. So far there had been a tradition to start to ride and train riding-horses not until four- to five-years of age. Equine locomotion coordination is however, developed early. It was concluded, that freedom to move on big pastures is necessary for optimal development of locomotion in foals and yearlings. If the young horses were reared in that way, the training under rider could, preferably, be started at an age of two and a half.

### **Central foal registration**

In 1980 it was decided by ASVH that all foals must be registered centrally to get a breeding-certificate. This was, of course, an important step in improving the accuracy of the SWB stud-book.

### **Open stud-book**

In 1982 ASVH decided to open the stud book to allow crossing with warmblood horses not previously accepted. By tradition, SWB was allowed to get new blood through import of Trakhener and Hanovarian stallions and sometimes mares. In addition, Thoroughbreds and more rarely Arabs had been used for this purpose. This might be one important explanation for the fact that SWB was known to be much more successful in dressage and three-day-eventing than in show- jumping. Now the basis was laid to use Holsteiners, more specialized for jumping, to improve the jumping ability of the Swedish Warmbloods.

### **Swede Horse**

In 1983 a company called SWEDE HORSE was founded for the promotion of the SWB. This company is today owned 50% each by ASVH and the Swedish Equestrian Federation (SvRF) and is the only organization in Sweden for cooperation between breeding and sport. Swede Horse is responsible for the Swedish Breeding and Sport Championships including the very successful Breeder's Trophy (see below!)

### **The first privatized National Stud in the world**

In 1982 the Swedish Parliament decided to privatize and make Flyinge, the national stallion-depot and stud, founded in 1661, into a foundation. The author was appointed CEO. Together with the board appointed by the new owners, which consisted of representatives from the main Swedish organizations for horse breeding and sports, a rapid and successful development plan was

initiated. Sponsored by major institutions and companies, the scene was completely changed. Flyinge became a successful center for breeding, sport and education. Being the first privatized National Stud in the world, it was followed with interest by equestrian interests all over the world. Twenty years later a few more national studs in Europe have been privatized.

### **Scientifically based breeding indexes**

In 1984 scientifically developed BLUP breeding indexes were introduced for stallions to be used for progeny testing of stallions. Sweden was the first nation to use BLUP analyses in horses. Since then all major stud-books have started to use this type of genetic analysis. The indexes were based on performance results of four-year-old mares, stallions and geldings in quality-tests and have been of great importance for the development of the SWB. Now, a university development program is under way in Uppsala to include also other types of results from shows and competitions. Such indexes were presented in Germany in 2002. An international group – INTERSTALLION – consisting of equine breeding specialists elected by WBFSH, ICAR and AEEP are now studying different ways of harmonizing sport horse breeding internationally.

### **The Swedish Horse Board**

In 1986 a Swedish Horse Board (SH) was founded to replace the government in controlling and guiding breeding of all horses in Sweden except race horses. For several reasons, SH has failed to develop an efficient, computerized horse-databank and thus to play any major role in horse breeding, at least for ASVH.

### **Transported semen**

In 1986 Flyinge introduced a new concept for artificial insemination by starting to use transported chilled semen, which revolutionized the traditional breeding by transporting mares and foals to the stallion. Sweden is a relatively large but sparsely populated country. Long transports had therefore previously made it more or less impossible to use anything but regionally stationed stallions. Now, it suddenly became possible for breeders to use top stallions to improve their business. In a very short time the new concept was adopted by a majority of breeders. To-day it is possible to use the best stallions world-wide to improve the various “sport horse breeds”.

### **Breeder’s Trophy**

In 1992 a new type of competition, Breeder’s Trophy, for five- and six- year-old horses with huge prize-money was introduced. The prize-money must be sponsored five years ahead by foal-fees paid by the breeders as well as yearly fees paid by the stallion-owners. This initiative, taken by the stallion-owners, increased tremendously, the interest for breeding among the riders. The prices paid for promising young horses went up and the cooperation between riders and breeders became much improved.

## **New breeding indexes**

In 1998 BLUP breeding-indexes were introduced for mares. The same traits were recorded as for stallions, i.e. conformation, gaits, jumping and total score. Now sub-traits have been added for all horses to give more detailed information: For conformation = type + extremities + gaits (showed in hand), for gaits = walk + trot + canter and for jumping = technique/scope + temperament/general impression.

## **Talent tests**

In 1999 so called talent-tests were introduced. The idea was that it would be possible for the breeders to get an early test of conformation with gaits at hand and free-jumping of their horses. It had been found that too many of the best mares were sold to riders and not covered. To stimulate the owners to test their mares and to have them covered, a special bonus-system was developed for the best 25% of the mares. The owners of these horses were offered considerable reductions of the breeding-fees, financed by ASVH, stallion-owners and sponsoring companies. Also owners of stallions and geldings were interested in the talent-tests to market and sell their horses.

## **Young horse tests**

In 2002 ASVH found it suitable to replace both the quality and the talent-tests with a new program of young-horse tests for three- to five-year-old-horses. It was now up to the horse-owner to determine when his horse would be tested. The rules of this program still need some improvement, but the program has definitively come to stay.

## **Specialized stallion selection**

In 2002 ASVH also introduced new rules for the stallion performance-test. More and more demanding performance is required for success in today's international equestrian sports. ASVH therefore decided to modify the present breeding-program so that selection for jumping- or dressage-talent was separated. The tests, taking 8 days in all, are now also open for three- to five-year-old horses. After the age of five all stallion prospects have to qualify for breeding through good achievements at horse-shows. The stallion-owner himself decides in which discipline he wants to test his stallion. The test is split in two phases. First all horses are judged for health, conformation, gaits under saddle and free jumping. Five-year-old jumping stallions make all the tests under rider. If the owner after this warming-up wants to continue, the test proceeds along different lines. It is demanding, but possible to test both for dressage and jumping ability if the owner wants to do so. The dressage prospects do not have to jump again but are tested twice for gaits. First under the rider selected by the owner and then by two test-riders. The three-year-old jumping horses are judged for canter and jumping during repeated free-jumping attempts. The older stallions are jumped both under their own rider and by two test-riders. For early approval as a three year-old, a stallion must be extremely talented in his discipline. Still the approval is only valid for one year and at four years of age he must undergo another complete test.

## **Quality listing**

ASVH will, according to a board-decision in 2002, start to list stallions and mares of sufficient quality to be recommended for mating within a dressage- or jumping-program. It has also been decided to add a specific quality suffix for marketing purposes, to the name of offspring within each program. It is, however, not yet decided when this policy will start.

## RECENT JUMPING SUCCESS

The National Teams of Sweden have for some years had great success in jumping competitions all over the world. This is of course due to many factors such as experienced and talented riders, an internationally highly respected national team trainer and efficient, dedicated coaching. In addition there is a great program educating and developing a large group of young talented riders. And above all, the spirit among Swedish show-jumpers is at present one of friendliness, and cooperation.

However, the quality of horses is probably responsible for two thirds of the total success at this level of competitions where top riders are in the saddle. In Sweden an aggressive debate between riders and breeders started in the late sixties about the jumping ability of the SWB. The debate went on for years and not much was changed, except that a vast import of foreign medium-quality jumping- horses began.

In 1982 ASVH took a great step towards improved production of good Swedish jumping-horses by opening the studbook. Immediately promising jumping-stallions were imported, some of which were very well bred, introducing jumping-genes of world-class to the breeders. Four of them today dominate as sires of potential jumpers, namely Irco Marco 662, (born in 1971), Cortez 679 (1981), Irco Mena 763 (1982) and Robin Z 723 (1983).

As a result all four Swedish equipages qualified for the finals in the 2000 Olympic Games. Two of the horses were sired by Robin Z 723 and one each by Irco Marco 662 and Cortez 679. No medals were won this time but in 2001 our national jumping- team won a silver-medal in the European Championships. In 2002 the team won a silver-medal in the World Championships. Both times two horses by RobinZ 723 were part of the team.

Such successes are the best possible marketing tool for Swedish jumpers. The interest for specialized jumping-breeding is, of course, increasing. The fact that ASVH has decided to list mares and stallions of high quality for a jumping-program and mark the name of their off-spring by a special suffix is very important. Today too many breeders lose money and the only way to change that is to improve the quality of the breeding-animals and market them in close cooperation with skilled jumping trainers and riders.

The successful development of the SWB as a show-jumper is a good example of what can be achieved when a positive demand from the riders is mixed with creativity and hard work by the breeders.

The work carried out by ASVH and its associated local breeding associations is so far, splendid. Today, however, it is my opinion that the Swedish jumping breeding program could be further accelerated. More momentum and more dedicated initiatives from the Jumping Committee of the Swedish Equestrian Federation would go a long way to further improve the Swedish jumpers. The great challenge for the future is thus to stimulate a new development sufficiently strong and fast to, in ten years from now, produce many more internationally competitive jumpers than is the case today.

The increasing sport success of the Swedish jumping riders surprised the sport journalists worldwide and increased media coverage considerably. This is by far the most efficient way to market Swedish jumpers. However, to utilize the sport successes optimally for sales promotion, there has been a lack of organizational power so far. Hopphästklubben (=The Jumping Horse Club) is therefore a newly founded, independent, club, which will work in close cooperation with breeding and sport organizations. Owners of high quality breeding stallions and mares, as well as specialists (jumping-riders, trainers, veterinarians and other professionals) are welcome as active members. Everyone interested in supporting our national teams by increasing the number talented Swedish bred jumpers are also welcome in the club, as supporting members. The club will mainly operate via Internet and is based at Sparreholm Castle, 150 km south of Stockholm.

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