The IV International Conference 2012 ”Turkmen Horse Breeding in the Art World”

**Systematic selection of Akhal-Tekes for sport.**

by Jessica Eile Keith

A history of Turkmen selection for elegance and performance

The Akhal-Teke is a light horse breed of medium size that has been mainly used as a riding horse. It has primarely been selected for elegance and performance ability[[1]](#footnote-1). Until the end of the 19th century the Akhal-Tekes were used for raids and campaigns and during the same century a large amount of Akhal-Tekes were used as improvers at Russian state studfarms. Since the foundation of the Transcaspian studfarm in 1886 a Russian studbook has been maintained for the breed. The main breeding goal under Russian management was to increase size of the horses as well as the population and to improve performance ability. One method to achieve these goals was to cross English Thoroughbred stallions to Akhal-Teke mares, start studfarms that would focus on breeding Akhal-Tekes as well improve on feeding and training. The Akhal-Tekes were tested for speed and soundness on the racetrack at so called hippodromes. The English Thoroughbred sires did not have the expected effect on improving the breed and the use of such stallions was discontinued.

After the fall of the Soviet Union the breed became available to breeders worldwide and their numbers and geographical spread have slowly increased. Today the breed is managed with the same system and methods as it was in the beginning of the 20th century. While most organizations that manage riding horse breeds have focused on the improvement of the soundness and performance ability in their horses, the Akhal-Teke breed organization has emphasized selection for type and pedigree. The breeding goals and breeding policies for the preservation and improvement of the breed as well as the adjustment to market needs and a clearly defined goal for usability has not been communicated to the breeders or have not been developed at all. An increasing number of breeders realize the market need for an Akhal-Teke with a good riding horse conformation, good jumping ability, good dressage movements as well as a temperament suitable for the modern rider and todays’ show ring. at the same time as many breeders in Southern Russia and Central Asia select their Akhal-Tekes for speed.

Different breeds have different breeding goals depending on what they are used for, common for all horse breeds though is that the breeding goals must be clearly market oriented and at the same time long term so the breed can develop.[[2]](#footnote-2) The overall goal for the Akhal-Teke breed is to preserve and improve the breed as it is a strong cultural value these goals must be combined with a market value. The market value for the Akhal-Teke is its elegance and its performance ability as a racehorse and as a riding horse. Therefore the rideability and sport horse values are important to consider in the breed plan. A clearly defined performance goal has always been important in the breed and today more than ever we ask for better performance in our horses.

Many Akhal-Tekes are suitable for sports and are very good riding horses but few Akhal-Tekes are tested for sport talents in a systematic way. The breeder lacks tools to efficiently select the breeding animals geared towards sports. In order to be competitive with other breeds it is important that there is a plan developed for the evaluation of the suitability for sports within our breed. We should not brag about Absent’s dressage performance in the 60’s but carefully evaluate his abilities and make clear goals on how improve our current population to yet again become competitive in the sport horse arena. The old warhorse steeds must be bred to win at todays’ battlefields, the show ring and the racetrack.

What can we learn from other sport horse breeds?

Modern horse breeding is more based on science and research than ever. This has been realized and embraced by the President of Turkmenistan Gurbanguly Berdimuhamedov who in his book The Flight of the Celestial Race Horses[[3]](#footnote-3) emphasizes need for a scientific approach to the conservation and improvement of the Akhal-Teke breed, “Undoubtebly, the crucial task is further improvement of selection work for enlargement of elite livestock….the head of state pays much attention to opening of a scientific horse breeding institute”.

Decades of collection of data and the research and studies thereof have created powerful selection tools for sport horse breeders. Today we know the ideal conformation, temperament and movements that make an elite jumper or dressage horse and researchers have traced the actual genes give speed to the a race horse.

We also know how to efficiently select for breeding soundness and overall sound riding horses with good character and rideability for the modern equestrian. It is about time that these well proven methods are applied to the Akhal-Teke breed to take the guessing and magic out of the breeding and replace it with solid facts.

There is a unique opportunity for the Akhal-Teke breeding community to see more science in the breed development as the leadership for the Turkmen homeland of the Akhal-Teke has a very strong commitment to the breed – and to science. Combined with an understanding and respect for the traditions and environment, and the people that created the Akhal-Teke breed, a small and rare breed that nevertheless have excelled in equestrian sports with legendary Olympic gold medal winner Absent and Soviet Union national show jumping champion Arab as well as famous race horses such as Polotli.

It would be reasonable to aim at the medium level equestrian as a first step of breed development and once a platform for testing and selection has been developed, continue to phase two where the goals would be to make the breed yet again on national and international top level.

Where do we stand today?

The Akhal-Teke is defined in international literature as a light type riding horse and most Akhal-Tekes can be considered light compared to the modern warmblood but there has not been enough selection for rideability and overall soundness. The breed has been evaluated and rewarded for type, purity and pedigree since it was introduced in bigger numbers in the west in the beginning of the 1990’s. As there has not been any systematic testing of rideability and suitability for disciplines such as competitive dressage or show jumping, breeders that want to focus their breeding program on performance have little or no facts or reliable statistics for selecting towards excellence in sports.

As the breed lack an official breeding program geared towards performance and sports the market today is mostly people interested in the mythology of the breed, their golden colors or rarity. Many horses are therefore not tested for performance ability and many are not educated or trained by professionals so that they can be properly evaluated for their riding horse ability, traits such as rideability, jumping ability, dressage gaits or speed are ignored for robe color, rare ancestors in the pedigree or goals such as ancient or desert type and even in some extreme cases for low percent of English Thoroughbred blood.

Where do we start?

Dressage is the only discipline where Akhal-Tekes have excelled on the highest international level with Absent winning Olympic gold medal in dressage in the 60’s. The Olympic dressage judge Axel Steiner also gives Absent the most honorary mention as being the first modern dressage horse type. He writes in his article published in the Chronicle of the Horse “ under a photo of Absent and Sergei Filatov “This is the first picture in the series that shows a “modern” type dressage horse – lighter, more athletic with a little bit of “hot” blood. “[[4]](#footnote-4)

He also notices one of the best riding horse traits in this breed “This seems to be a good team, as the horse appears to be totally focused on the rider based on the position of his ears.”

During a conversation with former FEI Dressage Director, Swedish Olympic dressage judge Eric Lette, the author was told that one of the most remarkable moments he remembers from his long career within dressage was when Absent doing a piaffe during his Olympic dressage test had a newspaper flying in between his legs, and he does not react but continues to work. This he said, is focus – and I have never seen this in any other horse.

Later in the article mentioned above, Axel Steiner comments on a photo of Anky van Grunsven and Salinero, that the horse is to powerful and difficult to ride “personally, this is not the direction I would like to see dressage go in the future. We can continue to breed for and reward more and more power, but that is not the ultimate answer; rideability and grace need to continue to define our sport.”

This is exactly what can and should select for in the dressage Akhal-Teke, grace and rideability as it is already in the breed. Dressage training is good for most horse breeds and Akhal-Tekes are very focused on their riders, athletic and have very good work ethics. The horses with the above traits should be trained and tested for their competitive dressage abilities. The rules for competitive dressage are written for European warmbloods but that has not stopped breeds with less good track records in dressage as Akhal-Tekes such as Friesians, PRE and Lusitanos to develop breeding programs for competitive dressage.

Akhal-Tekes have already proven they can jump big and high. Line founder stallion Arab born in Turkmenistan not only raced at the age of two, participated in the Ashgabad – Moscow probeg he also won national Soviet Union Championships in jumping and ended his career by siring an Olympic gold medalist in dressage. No horse before or after him has accomplished that much in a lifetime.

Young Akhal-Tekes should also be tested over jumps and evaluated as jumping prospects, jumping ability has a high inherability and we should be better within this breed to track the good jumpers, and create an intense selection program for jumpers. Jumping ability is, just as dressage ability best evaluated by sport horse judges and as for dressage.

Ideally Akhal-Tekes in countries that have developed programs for the testing of young sport horses can participate in such tests for experienced sport horse judges that can give objective conformation and dressage ability evaluations. Akhal-Tekes in countries such as France, Germany, Russia, Sweden, UK and the USA have participated in such tests with good results.

It is important that the Akhal-Tekes are tested at a young age so that talented horses can come to professional young horse trainers to optimize their chances to succeed. Ideally national breed associations would work on incentive programs for owners of top talented Akhal-Tekes to have their horses professionally trained and competed.

In order to quickly achieve breed progress it is crucial that all stallions offered for breeding are tested for their sport abilities, in jumping 80% of breed progress depends on the selection of stallions and in dressage 76% of the progress depends on the selection of stallions. [[5]](#footnote-5) The strict selection of stallions for performance ability is not new to the Akhal-Teke breed, the Parthians (247 BC - 224 AD) only bred stallions that had won races and the Turkmens have followed this tradition and it has been claimed that purebred mares that were impregnated with a stallion of average quality would be provoked to artificial abortion. [[6]](#footnote-6)

There is also a standardized test rider protocol under developed for the breed based on German standardized tests, this protocol has been used on two Akhal-Teke stallions in the USA and more Akhal-Tekes can be tested once the protocol is finalized. It could stimulate many owners to prepare their horses under saddle if they are offered a riding test of their horses by a mobile test rider that can show horses in optimal form, give advice on further training and score the talent of the horse. This program will be expanded in the USA in 2012. Photos and protocols from such test riding sessions shared via the Internet can serve as a resource for researchers, breeders and also showcase the breed under rider.

The Akhal-Teke has been a racing breed since before 1 000 B.C. and has raced over different middle distances. When the Ottoman Turks occupied Aleppo in the beginning of the 16th century they banned the export of Arabian horses. The Turkish sultans as well as British procurers chose to buy Turkmen horses instead. It was a fortunate circumstance that Turcoman bloodlines provided the middle distance speed required to win Kings Plates. This was the third and final source of Thoroughbred speed.[[7]](#footnote-7)

The breed had a huge impact on the development of the modern Thoroughbred and is still today a popular racehorse in Central Asia and southern Russia.

Research[[8]](#footnote-8) has identified a speed gene and racehorses can be tested for the gene. The selective breeding for speed in racehorses, beginning with the ancestors to the Akhal-Teke has resulted in a high frequency of the C-variant at the myostatin gene (MSTN) in the Thoroughbred population, mostly in the sprinters. Tests on many horse breeds involved in the creation of the modern Thoroughbreds including Akhal-Tekes and Turcoman horses as famous Thoroughbred stallions from 1764 – 1930 showed that the T-allele is ancestral and that there was a single introduction of the C-allele at the foundation stage of the Thoroughbred from a British native mare. The allele frequency for the sprinter is 6% for the Akhal-Teke (18 tested) and 0% for the Turcoman (15 tested), the US Thoroughbred had 70% frequency.

Type and performance – can we do both?

The President of Turkmenistan Gurbanguly Berdimuhamedov begins his book with the following words “We will never relax our attention to our race horses, as they are our pride and glory and source of our inspiration. Born on the Turkmen land, Ahalteke horse is a symbol of a striking harmony, beauty, gracefulness and incomparable swiftness given to it by nature and developed by the labour and mind of a man.”

Man created the Akhal-Teke for speed, boldness and endless loyalty to his master. It is important to maintain the Turkmen breeding tradition to select for riding horse traits, it may be for speed, big jumps or beautiful gaits but the horse must be bred to carry a rider.

The compiled lectures[[9]](#footnote-9) by Martin Beeman DVM, an advisor to the American Quarter Horse Association, AQHA, begins with the following on conformation “The real conformation principle behind a horse is the fact that you are going to use him, not just look at him. We look at horses to evaluate their conformation. However, the basic principle is that we are going to use him and he must be able to perform. That’s where the dynamics of equine locomotion comes in. In other words, all of the things that a horse is expected to do like cutting, roping, racing, jumping, polo and so forth. His center of gravity and all of his fantastic meshed-in mechanism of operation are the dynamics of equine locomotion….I stress that this conformation is going to be inheritable and it is going to be something you cannot change. The projection of a breed lies in the hands of the judges or those who are breeding horses, so they have to have an understanding of the dynamics. Otherwise, we are lost. “

Did we lose something along the way? Maybe we did in the quest for the coolest color, rarest line or most original type. Let’s go back to the drawing board and design a breeding program to revive the Akhal-Teke super athlete, he is out there somewhere among the genes.

1. Schamborant V. *The Creation of New Lines* Konevodstvo 8/87 [↑](#footnote-ref-1)
2. Philipsson J. *The Breeding of Quality Horses* KSLA Seminar, Stockholm 1999 [↑](#footnote-ref-2)
3. President G. Berdimuhamedov *The Flight of the Celestial Horses* Ashgabad 2011 [↑](#footnote-ref-3)
4. A. Steiner *A Photographic Comparison* The Chronicle of the Horse 6/2009 [↑](#footnote-ref-4)
5. Å. Gelinder E. Ohlsson *Testing opportunities and breed progress* Uppsala 2002 [↑](#footnote-ref-5)
6. A. Klimuk *Golden Collection of Akhal-Teke Horses*, Moscow 2006 [↑](#footnote-ref-6)
7. A. Mackay-Smith *Speed and the Thoroughbred* USA 2000 [↑](#footnote-ref-7)
8. Bower MA et al *The genetic origin and history of speed in the Thoroughbred* *racehorse* Nature Communication 2012 [↑](#footnote-ref-8)
9. M. Beeman *Conformation…the relationship of form to function* The Quarter Horse Journal [↑](#footnote-ref-9)