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WHAT SHOULD I LOOK FOR IN A PROSPECT FOR ENDURANCE COMPETITION?

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ENDURANCE ACCOMPLISHMENTS OF HORSES BRED BY STURGEON CREEK ARABIANS

- My love of horses began as a boy watching Thoroughbreds race at our local track. It was only later in life that I actually purchased my first horse. That was 30 years ago. Sturgeon Creek Arabians (SCA), my breeding partnership, has been breeding horses since 1985. In the 1990s, we sent our horses to the US for race training and competition. Our horses won in California and Delaware. It was through having horses at the track that we started selling horses into the endurance market in California. Adding up the total completed miles in AERC races, our horses have travelled 86% of the way around the world.
- 18 SCA horses have over 21,000 AERC miles, an 85% completion rate, & 37% Top Tens.
- 10 SCA-bred horses completed just under 18,000 mile with a completion rate of 86%. In 356 completions, they garnered 27 Best Conditioned awards, 170 Top Ten placings (48%), 50 wins and 33 seconds. Nine of these ten horses competed in the United States against fields averaging around 50 horses!
- Two horses have competed at the World Championship level.
- One horse won a US National Endurance Championship and finished second in another US National Endurance Championship.
- Two horses completed the Tevis.
- Our horses have placed 1st or 2nd in several Regional Championship rides.
- Comparing these miles, completion and Top Ten statistics with those of Asgard Arabians whose horses are ridden by some of the top US riders, our numbers are right there.



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- The reason our horses have done so well, in my opinion, is that we have always bred Arabian horses with racing pedigrees. We line-breed to offspring of Priboj x Taktika: *Pietuszok, Topol, Platina and Ptashka; these horses were known sources of racing ability in Russia and Poland. *Pietuszok did not race, but his offspring won the Polish Derby and Oaks. Topol won the Triple Crown of Arabian Racing in Russia. Ptashka won 4 of 8 races including a Stakes. Platina came first or second in 7 of 11 races and won a Stakes. At one point, Priboj and offspring held 28 of 43 speed records in Russia.
- We also line-breed to *Sabellina who won 5 of 7 races including the Polish Derby and Oaks. Her offspring created a racing dynasty in Poland and the US.
- ALL of our mares trace to mares that won Stakes or other races in Russia and Poland.
- For more information see our web site: www.sturgeoncreekarabians.com

WHAT SHOULD I LOOK FOR IN SELECTING AN ENDURANCE PROSPECT?

- ❖ Arabian horses are wonderfully versatile; some travel in an English Pleasure, high front leg action way of going; others travel in a horizontal race horse manner. Both are athletic, but the most efficient for endurance racing is the horizontal, racing way of going.
- ❖ Temperament
 - ◆ A horse with a laid-back temperament should pulse down quicker than a high-strung horse.
 - ◆ Matching the training and temperament of the horse with the riding ability of the rider is CRUCIAL.



❖ Size

- ◆ A good BIG horse will usually beat a good small horse. HOWEVER, a good small horse (Nobby) ridden by a small person can win the World Endurance Championship twice! Nobby has an impeccable Russian pedigree with intense line-breeding to athletic horses. Although small in stature, he is extremely correct and I am sure no expense is spared in his care and conditioning.

❖ Pedigree

- ◆ In my opinion, if you want a horse that will run fast over a distance of 50 or 100 miles, you should consider gene pools that have proven to produce race horses.
- ◆ Look for horses with proven racing ability or racing ancestors. In his book on Genetic Principles in Horse Breeding, Professor Lasley states:
 - Heritability of stride length estimated at 50-55%
 - Heritability of racing speed estimated at 30-35%
- ◆ Several Thoroughbred breeding authors attribute the passing of racing ability to the dam. So, geldings from dam families with proven athletics should warrant increased attention.

❖ Muscular Development

- ◆ When looking at a horse, be sure to ask what sort of work or exercise the horse is used to as this will give an indication of what muscle development should be evident in the horse.

❖ Conformation

- ◆ Head
 - Large eye set outside skull provides larger area of vision
 - Four finger space between branches of jaw allows more air. In my opinion, this is a crucial factor.



- ◆ Neck
 - Cervical spine with larger curve at top with neck coming out lower in chest allows throat-latch to be opened and horse naturally wants to travel with head lower.
 - From personal observation, if you cannot stick 2 fingers between the back of the skull and the first palpable vertebrae of the neck, that horse will be more difficult to work with.

- ◆ Front legs
 - The most common injuries to endurance horses deal with suspensory ligament damage.
 - The average stride length at the canter is 12 feet. IF a horse was able to canter the entire 50 miles, that would mean 22,000 times that the front legs will hit the ground! This should illustrate the importance of good front legs!
 - It is usual for the two front legs to be different. Front legs can be different in length. When evaluating a horse, you should examine each joint on both legs to determine how the bones line up.
 - Cannon bones should be as short as possible and forearms long, preferably twice as long as the cannons. This allows for longer reach and stronger legs and tendons.
 - The pasterns should be between half to three-quarters of the length of the cannon and be at the same slope as the shoulder.
 - All bones viewed from front should not be rotated, deviated or off-set.
 - View the horse from the front and draw a rectangle joining the two points of the shoulders with the elbows, this should be a square box. If so, this should provide the foundation for a good set of front legs and not toe in or out.
 - 65% of horse's weight rests on the forelegs.



◆ Body

- Shoulder should be long and laid back as this will increase the length of stride.
- Withers should be large and prominent as the shoulder muscles attach here. Larger withers provide large attachment surface.
- The humerus should be at least half the length of the shoulder.
- The angle formed by the shoulder and humerus should be at least 90 degrees, preferably more.
- The angle of the humerus dictates how high the front leg action will be.
- The Back should be short to maximize strength.
- Horses that are sprinters tend to have shorter backs.
- Heart Girth should be deep. The one thing we cannot measure is the size of the heart so this is the closest measuring stick. Deep girth and well-sprung ribs allow for bigger lungs.
- Coupling: distance between the end of rib cage and point of hip should be short: preferably 2 fingers. This maximizes the transmission of power from the hind quarter through the body of the horse.

◆ Hind quarter & legs

- The hind quarter is the “motor” of the horse. The rule is the front-end, measured from the point of shoulder to the withers should be 1/3 the length of the body, the distance between the withers and lumbosacral (LS) joint another 1/3, and from the LS joint to the point of buttock another 1/3. The hind quarters of Thoroughbreds range from 34 to 35%. A long hind quarter equals more power and the longer the better!
- The hind quarter can be viewed according to length, depth and width. The most crucial dimension for distance riding is the length.
- Depth is important for sprint horses. Width is important to keep the hind legs separated; it is most important for mares with regard to foaling.



- Distances between the stifle, point of hip and point of buttock should at minimum be an equilateral triangle. If it can be longer towards the point of buttock, all the better.
- Length of Ischium bone increases length of hamstring muscle which provides propulsion to the horse. According to Deb Bennett, ALL Arabians that possess long Ischia AND long hips are successful racehorses.
- The ischia bones are the extensions of the pelvis at the hind end and their length results in longer hamstring muscles.
- The Total Length of all the bones in the hind leg should equal between 112 to 115% of the height at the croup. Most racehorses have relatively straight hind legs as these are more efficient to transmit power than extremely angulated legs.
- This total length is measured by adding the iliac pelvis bone to the femur, the gaskin, the cannon, the pastern and hoof.
- Then, you compare that with the total height from the ground to the croup.
- It desirable to have long upper bones in the hind leg. The reason is that a small movement at the top of a leg translates into a large movement at the bottom of the leg. In particular, the femur bone should be long.
- Short gaskins are desirable as they are more powerful.
- According to Deb Bennett, a horse whose croup is higher than its withers will be rough to ride.
- In a recent edition of *Endurance News*, Matthew Mackay-Smith wrote that the least stressful gait for most horses is the canter. His article, "Why walking can be the toughest gait," has an interesting chart showing the Pace, Beats Per Minute and Total heartbeats for various gaits to cover one mile.



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◆ Feet

I haven't addressed the feet in detail. However, in general, the hoof wall should be consistent and thick, not shelly (fragile). The inside of the front hooves should be conical. Black hooves tend to be stronger. White pasterns are susceptible to scratches.

For more information, see

- *Principles of Conformation Analysis Volumes I, II, and III* by Deb Bennett, PhD. 1988, 1989, & 1991. Fleet Street Publishing Corporation, Gaithersburg, MD.



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