

Double Duty

Dual-Hemisphere Breeding Makes Stallions the Boys of Perpetual Spring

BY ROBIN STANBACK

While the Thoroughbred industry is frequently seen as one steeped in tradition, the giants of the business have often proven to be innovative. When tradition and innovation meet, the results can lead to advances that can revolutionize an industry. Perhaps the best example of this combination can be seen in breeding sheds around the world.

Many other breeds have sanctioned the use of artificial insemination and embryo transplant, but Thoroughbreds must be conceived by live cover to be registered and raced. For years, the logistics of getting mares to stallions restricted the number of horses that could be bred, but those limitations have been breached by a vanguard of the industry's elite who have used combinations of new ideas and technologies to increase the volume of mares that could visit their stallions.

To everything there is a season, and breeding horses has traditionally been a springtime event. From the early 1900s on to today, veterinary practitioners have worked to understand every aspect of the process and capitalize on the few months when mares' and stallions' biological clocks are at peak performance. Recent advances in veterinary knowledge, including ultrasound examinations, hormonal assays, and new methods of evaluating sperm, allow for more effective methods of monitoring mares and stallions resulting in higher conception rates.

In the early 1980s the breeding soundness standard was developed by the American College of Theriogenologists and was based upon stallions covering an average of 40 mares by live cover and 120 by artificial insemination. This standard, which is still in place today, is outdated according to Dr. John Steiner, with the Lexington, Kentucky veterinary clinic Hagyard-Davidson-McGee and Associates. He stated, "Today's Thoroughbred stallions can cover over 200 mares in one breeding season. Common thinking years ago was that a stallion's fertility would decrease if he were bred too many times. Research has shown that not to be the case. Interestingly, we have found that, as the number of mares booked to a stallion increases, so does the rate of pregnancies per cycle. The stallions that get these larger books are typically the more valuable stallions. The mares bred to these horses tend to come from places where mare management is more intense. The result of this increased level of care is that more mares get in foal on one breeding."

The increase in breeding shed efficiency led to larger bookings for stallions. Calumet Farm was one of the first in the United States to capitalize on this with the prepotent Alydar. In 1988 Alydar covered 97 mares. While the number of mares was exceptional at that time, so too were the dates on which he covered them. That year Alydar bred his last mare on November 6. She was one of a number of mares shipped from South America to be bred to the horse and then returned home to deliver.

Alydar was far from the only horse covering mares from the Southern Hemisphere. Other stallions both in the United States and Europe were also being introduced to mares from south of the equator. As it became obvious that the larger number of bookings was not compromising the health of the stallions, some owners and farm managers began to explore the idea of sending the stallions to the mares.

Flying Spur on his way to the paddock.



The concept of dual-hemisphere breeding took off when the great stallion Danehill was shipped from Ireland to Australia in 1990. Up until this year, when he was given a break from his string of 24 consecutive breeding seasons, the horse was a veritable frequent flier as he shuttled between the two countries. He led the Australian sire list five times and his progeny have amassed wins in 187 stakes races at this printing. Peter O'Brien, the manager of Coolmore in Australia, praised the horse's willing disposition, saying, "Danehill is an amazing horse. A baby could handle him, and he never so much as had a temperature. He is really the archetype shuttle stallion."

Temperament is certainly a factor in deciding which stallions make good candidates for shuttling, but it is only one small piece of the decision-making process. Bloodlines are a larger factor. John Messara, the founder of Arrowfield Stud, explained, "Obviously we look for a horse that we believe will suit our local racing program but also one that will have commercial appeal to breeders. This is an issue of judgement and then marketing. It is always preferable to target a stallion whose progeny have done well in conditions that approach those in Australia. An example of this would be Zafonic. He was a sprinter/miler which is ideal for Australia. He was also an excellent two-year-old himself, and is a progenitor of good two-year-olds. The Mr. Prospector sireline is known and appreciated here and has crossed well with Sir Ivor- and Northern Dancer-line mares which are prolific in Australia."

Arrowfield is known for shuttling outstanding stallions. Among them are Fuji Kiseki (by Sunday Silence and out of Millracer) who spends the first half of the year in Japan, and Danzero (by Danehill and out of Confidentially) who flies from Australia to Great Britain. Both carry the type of bloodlines certain to attract the interest of sales-oriented breeders as well as those who breed to race. Together with the farm's resident stallions, these horses provide a variety of popular bloodlines.

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Coolmore also maintains a varied and popular stallion roster that sees, among others, Kentucky Derby winners Fusaichi Pegasus (by Mr. Prospector and out of Angel Fever) and Thunder Gulch (by Gulch and out of Line of Thunder), as well as the horse scheduled to replace Danehill in its Australian breeding shed, Giant's Causeway (by Storm Cat and out of Mariah's Storm.) Known as the "Iron Horse" for

his ability to race a rigorous schedule and remain sound, Giant's Causeway has generated a tremendous amount of excitement because of his race record (winning six Group 1 races throughout Europe), and the fact that his offspring are proving to be hale and sturdy.

Once the stallions have been chosen for dual-hemisphere duty, transporting them is a job delegated by both farms to International Racehorse Transport. (See article on air transport, page 10.) The company's experienced staff works with the farms and their crews to assure the horses' safe arrival at their new homes. Flying the horses from place to place has become considerably easier than it was in the 1980s when Mr. O'Brien made his first trip to Australia. He said, "It was like flying in Noah's Ark. There were all sorts of animals—zoo animals mostly—and then my horses. You don't see that anymore. Actually, most of the stallions made the trip very well even then. They are good travelers. Most of the really popular horses have been racehorses, so they have traveled quite a bit and are accustomed to it."

Both Coolmore's Mr. O'Brien and Arrowfield's Australian farm veterinarian, Dr. Mark Wylie, agree that providing exceptional and consistent care for these very valuable animals is essential to their well-being and their ability to perform their jobs. The experience the farms have had has led to the development of programs that have assured their success and allowed them to avoid some of the quarantine problems experienced by some smaller operations. Every country has different quarantine restrictions that require horses to be isolated for specific lengths of time. Coolmore and Arrowfield have their own licensed quarantine stables so that the horses can be kept in familiar surroundings for the duration of the quarantine period.

Dr. Wylie stated, "Every horse is an individual and must be treated as such. We liaise closely with the Northern Hemisphere farms to determine each horse's particular needs and even their personality quirks. Horses are definitely creatures of habit; they need continuity. We want to be able to limit the amount of change these animals have to experience. Another way we have found to do this is to have each horse travel with the groom that has been caring for him. We have found this to be most important."

Mr. O'Brien concurred, adding, "Our horses always travel with their regular grooms, and these people continue working with the horse for the duration of the stallion's stay in Australia whenever possible. They know the horses best and can tell immediately if something isn't just right."

Another aspect of the horse's care, the nutrition program, is carefully monitored by all the stallion managers. The availability and types of feeds and hays differ between hemispheres, and the farms must rely upon carefully formulated programs to protect their charges. Dr. Wylie said, "We work to keep the stallions on feeds that are as similar as possible to lessen the changes of gastric upsets."

Here again, the quirks of the individual horse play an important role. Mr. O'Brien laughed, "Danehill could look at an oat and gain a pound. Still, it was important to devise a program that would assure that all of his nutritional needs were being met. Other horses might need far more feed to maintain their weight, but there again, the balance must be made."

Exercise and light are also vital in helping the horses adjust to a different season than that which their bodies were expecting. In keeping with the goal to maintain the horses' routines, both farms have designed exercise programs for each individual. Mr. O'Brien said, "What we have found is that our horses, particularly the Irish ones, do well with exercise. It helps to keep them healthy and to give them a mental break. Really, these horses seem to thrive in Australia, and they do enjoy having the sun on their backs."

Sunlight and artificial lights are used to help the horses adjust to the change in hemispheres. Dr. Wylie explained, "Naturally, a horse would not experience two springs in one year. We use light to help the horses make the adjustment, and have found that the horses do well with between 16 and 18 hours of sunlight. We box (stable) our stallions every evening. This allows us to supplement the sunlight with artificial light."

The problems that equine experts thought would arise from "overworking" stallions have not surfaced. When Alydar's book grew to twice the accepted levels in the mid-1980s, some horsemen expressed the concern that the animal would lose interest in his job and quit performing. Dr. Steiner, along with Dr. W.R. "Twink" Allen, head of the Equine Fertility Unit In Newmarket, England, studied shuttle stallions for two years, collecting semen and blood to measure hormone levels. They discovered that the natural bell curve that is seen in most stallions' hormonal assays during a breeding season was duplicated for the horses that traveled across the equator. Fertility was not affected. "Indeed," explained Dr. Steiner, "we found the only limiting factor for the horses to be libido."

Dr. Wylie has found the same to be true. He stated, "Most shuttle stallions experience a slight decrease in fertility in mid-October for about eight to ten days. This flat spot seems especially marked in stallions that have been shuttled for three or four years consecutively. We try to give them a bit of break and then they come right back. It has not been a problem for us."

Indeed, if there were fertility or libido problems the numbers of horses bred would reflect them. Some of the superstar stallions of the recent past have settled impressive numbers of mares quite successfully. Thunder Gulch bred a total of 371 mares in 2001, 216 in the United States and 155 in Australia. Fuji Kiseki bred 225 mares in Japan and 83 in Australia for a total of 308.



Photo by Peter Huntington

Danehill, cast in bronze, at Coolmore's Southern Hemisphere location.

Considering the volume of mares bred, the financial aspect of transporting these stallions is considerable. Dual-hemisphere breeding can double the income produced by one of these valuable animals whose stallion service fees often run in five—and occasionally six—digit figures.

While the business of breeding horses is a multimillion dollar endeavor, the people who own, operate, and care for these animals are first and foremost horsemen. Neither Mr. O'Brien nor Dr. Wylie would initially admit having a favorite, but each eventually talked glowingly about at least one.

"As a professional, I appreciate each individual and it would be difficult to choose any one over another," Dr. Wylie began, "but I do rather like Fuji Kiseki. He's just a lovely animal. He has a unique personality. Oh, they all do."

Mr. O'Brien laughed when asked about any favorites he might have among his charges. "They are all special. But, I'd have to say I'm awfully impressed by Fusiachi Pegasus. He handled the shuttling last year with aplomb, and his first foals are the best I have ever seen."

The experience and knowledge gained by the farms from years of shuttling stallions have been shared with the entire Thoroughbred industry. From this has come better transportation conditions, an expanded knowledge of equine reproduction, and a broader base of equine bloodlines for breeders to access. Dual-hemisphere breeding may well be a prime example of industry growth at its best. ☺