## Hanover Shoe Farms uses A.I. in breeding world-famous horses

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HANOVER — To folks around the Hanover area in York County, the sighting of the first robin or daffodil doesn't announce that springtime has arrived. Rather it is the sight of green meadows filled with Standardbred mares flanked by frisky newborn foals that officially ushers in another end to winter.

The largest number of those record-breaking pacers and trotters dotting the fence-lined pastures belongs to the Hanover Shoe Farms, a conglomerate of 35 farms, more than 4,000 acres, 1,800 horses at the peak of the season, 40 barns, 50 houses and apartments, and more than 100 employees.

Dr. Peter Boyce, supervisor at the Shoe Farms, explains that foals born to race are considered to be yearlings on January 1 of the year following their birth regardless of the month in which they were born in the preceeding year. To get the most advantage of age and growth, breeders try to have their mares foal in the early months of the year. The breeding

season at Hanover Shoe Farms runs from February 15 to July 3.

Boyce estimates that Hanover breeds 350 of their own farm mares plus an additions 1,000 privately owned mares annually making the operation the largest and most productive. Standardbred operation in the nation. This year their first foal arrived on February 1. So far 160 new additions have arrived at Hanover with about that many more expected.

Boyce explained that artifical insemination of mares is almost standard procedure now with Standardbreds, though it is illegal with Thoroughbreds. Hanover has been using the technique for the past twelve years.

Boyce pointed out that according to the American Track Club rules, all mares must be bred the same day that the semen is collected. This eliminates the need to freeze semen. But Boyce explained work is being done in this area. Boyce makes no short-term projections concerning the feasibility of freezing horse semen since he feels that mares are individual in their semen needs for conception, that



Here is a field of Hanover mares son to have frisky foals at their flanks. Mares and foals are turned out about one week after birth.

Hanover Shoe Farms are counting on about 320 new additions this spring.

there's been little scientific work done on the methods yet, and that there are considerable questions in his mind as to who would manage and regulate such an enterprise.

The stallions at Hanover are collected daily and the breeding shed buzzes with activity from 1 p.m. to 4 p.m. six days a week during the breeding season. According to Boyce, Hanover breeds and boards 200 to 300 mares annually not including their own, plus serviving another 300 to 400 transit mares.

The mares are checked and palpated daily to detect heats. Mares to be bred are brought to the breeding shed where they are prepared for insemination. The mare's identification number is recorded and the service sire's number is recorded and double-checked before insemination.

The stallion is brought into an immaculately clean collection area where he is teased by a mare in heat. The stallion is then lead to mount a "phantom" mare. This phantom mare is actully a padded dummy complete with leather strappings for the stallion to grab with his teeth to help him balance. As one barn crew member stated, "It's better than having him grab your arm!"

Technical Assistant Neil Hanchett detailed that the stallion's semen is then collected in an artifical vagina with a small receiving bag in the end. Following the collection, Hanchett then filters the semen and checks it for quality and quantity. The semen is then mixed with an extender in a 1:1 ratio.

Hanchett strives for an average sperm count of 200 million per service. He then divides the extended semen by the number of mares to be serviced to his stallion that day. Semen quality and quantity varies widely among stallions explained Hanchett and the amount of semen necessary for conception can vary anywhere from 5cc to 20cc.

The mares are then returned to the farms and watched for repeated heats in 18 to 21 days. Pregnancy checks are performed 42 days after servicing.

Boyce stressed that artificial insemination has many benefits—the primary one being the detecting and settling of mares that don't show heat signs easily. He also credits artificial insemination with eliminating many of the reproductive diseases associated with natural services.

On the subject of embryotransfers for Standardbreds Boyce related that there's really little interest in the industry for using the technique. He does know of one ET foal in Canada that has been registered, but he pointed out that the use of the procedure is illegal in the United States.

Stated Boyce, "There's trouble now in the horse business with over-population, so why bring about more horses. You've got to understand that our end product doesn't market the way dairy cattle do. With dairy cattle you have a product to market besides the animal herself.

According to Boyce, the price commanded for yearlings has come down somewhat with the recession. But the breeding barn is as busy as ever this season.

Seven stallions are present, standing at the Hanover Farm' with service fees ranging from \$2,000 to \$75,000. Racing legend Tark Heel, the world's leading broadmare sire, is stabled there in retirement. Tar Heel is now 34 years old and was servicing mares into his 20s. Hanover owns 85 stallions in all, including those standing at stud farms in surrounding states, according to Boyce.

Visitors are welcomed at Hanover Shoe Farms. In a promotional booklet about the Shoe Farms' origin there is a phrase which sums up this incredibly successful operation. It reads, "You may find a handsomer, a prettier Standardbred farm somewhere. You will not find a better one."



The result of man's technology and Mother Nature's expertise turns out another long-legged charmer. Who knows; this one could turn out to be a world's record holder, just as soon as he figures out how to put his best foot forward.

Neil Hanchett, technical assistant, examines, dilutes, and prepares the semen for insemination. All the equipment and utensils

used have been heated to the horse's body temperature to help to insure maximum sperm count and mobility.

## USDA announces reassignments

WASHINGTON, D.C. — Secretary of Agriculture John R. Block recently announced several personnel changes within the U.S. Department of Agriculture.

The changes include:

— Alan Tracy, general sales manager and associate administrator of USDA's Foreign Agricultural Service, becomes deputy under -secretary of agriculture for international affairs and commodity programs. He will replace Thomas A. Hammer, who will return to private business.

- Melvin E. Sims, who has been Mildred Thymian who resigned

chairman of the Federal Crop Insurance Corporation since August 1981, replaces Tracy as general sales manager and associate administrator of the Foreign Agricultural Service.

- Merritt Sprague, who has been deputy administrator of the agricultural stabilization and conservation service, replaces Sims as chairman of the Federal Crop Insurance Corporation.

 William Manley, deputy administrator of the Agricultural Marketing Service, will become acting administrator, replacing Mildred Thymian who resigned