

The Future of the Stallion Approval Process

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The purpose of the stallion approval process used by sport horse studbooks is to identify male horses that have the potential to become highly successful sires. Although horses have changed, top-level sport has changed, and information technology has changed most studbooks, with only slight variation, are using the same approval process they used decades ago. Perhaps it is time for a change.

Approval of a stallion is an imprimatur, if not in the ecclesial sense than at least in the equestrian sense, that a stallion has been judged to be highly appropriate for the studbook's population of mares (or a sub-set of its population), has qualities and attributes that are highly desirable, and does not possess highly heritable qualities and attributes that are highly undesirable. Or more precisely, any undesirable qualities and attributes are compensated for by highly desirable qualities and attributes.

When evaluating stallions three types of characteristics can be examined:

Category 1: Invisible Characteristics

By "invisible characteristics" I mean characteristics of the stallion that are very difficult, if not impossible, for mare owners themselves to see or discern. Examples include the stallion's DNA (is the purported pedigree of the stallion his true pedigree?) and health status (does he suffer from paralysis of the larynx or pharynx, or navicular disease, or degenerative bone disease, or a neurological defect?). Because it is impossible for breeders to discern whether these invisible deficiencies are present in any particular stallion a studbook's approval should be a guarantee, to the extent genetic science and veterinary medicine permit, that the stallion is who its pedigree purports it to be and he does not contain serious detectable health defects that are highly heritable. Unfortunately many studbooks still do not require parentage confirmation through DNA analysis (or have only recently begun performing tests and are now discovering discrepancies, even among their approved stallions) and/or have less than rigorous health examinations (or focus on health characteristics that are not highly heritable).

Category 2: Easily Seen Characteristics

By "easily seen characteristics" I mean characteristics of the stallion that are easily observed and/or discovered by breeders. Examples include the quality of a stallion's pedigree and damline, athleticism, jumping ability, movement, rideability, and conformation. Most studbooks spend a lot of resources (or to be more precise, stallion owners' resources) concentrating on these easily seen and discoverable characteristics by requiring stallions to complete a 10- or 30- or 50- or 70-day performance test or to compete in special shows for approved stallions and stallion candidates or to achieve a certain standard in open competition. But we know from history that studbook officials often make two types of errors: Type 1 errors (i.e., a false positive), whereby a bad stallion is approved (we see this every year as only a very small percentage of the hundreds of newly approved stallions become successful sires); and Type 2 errors (i.e., a false negative) whereby a good stallion is rejected (we all have read anecdotal stories of famous stallions that failed their initial grading and/or performance test and went on to become important sires in other studbooks). A further difficulty with the requirement of performance through the stallion test is that there is little evidence of a positive correlation between success in these tests and later success in top sport, and even less evidence of a positive correlation between success in these tests and success as a sire. So many studbooks are using a proxy (i.e., the stallion test) that appears to be worthless in its stated goal of identifying or predicting future top sires. And even using results in open competition is problematic because this selection tool is not immune from Type 1 and Type 2 errors, and there is no convincing empirical evidence of a correlation between success in open competition and success as a sire.

Category 3: Difficult to Evaluate But Discoverable Characteristics

By "difficult to evaluate but discoverable characteristics" I mean the core issue that a stallion approval process should be concerned about: The quality of the progeny sired by the stallion. I am aware of only two sport horse studbooks that make systematic progeny evaluations a key component of their stallion approval process, the KWPN and WSI. Other studbooks ignore this most important criterion for evaluating a sport horse sire, namely the athleticism of his progeny and their later success in sport. Many breeders, even highly experienced ones, have difficulty evaluating young horses and especially very young horses such as foals, yearlings, and two-year-olds. But this, along with identifying the aforementioned invisible characteristics, is perhaps the most important contribution a studbook should be making -- differentiating stallions that produce outstanding progeny from the ones that produce "normal" (i.e., average) and inferior progeny while taking into account the quality of each mare (with respect to her own athleticism, genotype, and phenotype) that produces a foal sired by that stallion.

Questions must be asked about horse welfare in the stallion approval process. Is it in the best interest of these young stallions to often be overfed, hot-housed, administered steroids and other chemicals designed to make 2-year-olds and 3-year-olds look like 6- or 8-year-olds? Of course not. And before the initial grading and before they enter the testing center many youngsters are pushed (or shall we say "tuned-up"?) to jump and move extravagantly and in an unusually flamboyant and circus-like manner that puts them at risk for physical and/or psychological injury. These behaviors are done by some stallion preparation "experts" because these types of horses are very often rewarded with high marks by the men and women with the clipboards.

The appropriate role of the stallion performance test is one that I struggle with as Breeding Director of the Warmblood Studbook of Ireland. When the studbook was launched we required a performance test or performance in open competition for a stallion to move from licensed to approved status. However we eliminated the requirement several years ago and chose to redouble our efforts to monitor progeny. In other words, we chose to directly measure the variable we are concerned about -- the quality and athleticism of the stallion's progeny -- rather than a proxy for that variable. WSI is reviewing this issue again now, not because we believe we made a mistake but because there are benefits to our breeders if our approval processes mimics those of our sport's leading studbooks.

What reforms to the stallion approval process should be considered by studbooks?

Testing of stallion candidates for steroids and other drugs designed to spur growth and/or muscle development.

It is perhaps time for routine screening to be adopted by studbooks with severe penalties -- i.e., elimination of the stallion from the process and suspension of the stallion keeper from future participation in the process-- for a failed test.

Place ring attendants with whips next to the jumps in the loose-jumping chute.

One of the easiest ways to discover if a horse has been tuned-up is to place people with lunge whips next to the standards. If the horse stops in the chute ten or twenty feet before the jump, it is likely we know the reason.

Return to longer stallion performance test format for three-year-old stallions, with the requirement that these stallions not be started under saddle before they enter the testing center.

The trend toward shorter tests certainly makes them more affordable but I believe there was a certain wisdom to the 300 day tests that the State Stud Celle used to do for Hanoverian Verband's stallions. Perhaps this ship has sailed but I am convinced that the testers and the Verband knew very well after this process concluded which were truly the outstanding young stallion with respect to their athleticism, rideability, and character. And there was no need to rush the development of these young stallions.

Live-streaming of video from the entire testing center so horse welfare can be monitored by stallion owners, studbook officials, and the public.

The entire testing center should have video cameras with live-streaming to better ensure that horse welfare is always safeguarded, even when the arena doors are closed.

Studbooks that require a stallion performance test should collaborate on a 5-year-study to scientifically test the efficacy of the test in predicting performance as a sire.

Such a study could investigate whether there is a positive association between how a stallion performs in a stallion test and his achievements as a sire, and whether greater predictability is achieved with long tests versus no tests or short tests. To have value this study would need to be professionally designed and executed.

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