

This is the first in a series of five articles aimed at providing knowledge and resources to horse breeders and buyers as well as discussing the thought processes involved in breeding horses. Other articles will touch on basic genetics, genetic disorders (in two parts) and the selection process and breeding theories.

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Articles Series

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BREEDING REALITIES INTRODUCTION

Breeding horses can be exciting, but it also means we must weigh our options and make decisions. Our hopes are elevated as we picture that perfect foal romping in our fields. Our pride swells, yet we have to be realistic.

Being Realistic



Being Responsible

Sir Robert Baker is quoted as saying, “A breeder is one who leaves the breed with more depth of quality than when he started. All others are but multipliers of the breed.” People should show accountability to individual animals and to the relevant gene pools since many welfare problems can be prevented through responsible breeding.

When interviewed for an article about the retirement of horses, Canadian-born actor and long-time horseman, William Shatner, said, “All horse owners need to realize that when they have a horse, they are assuming a responsibility – not just to grow them, exercise them or train them fairly and kindly... It is like being a parent. You may like the idea of having a baby in the house, watching it grow, become a teenager and then leave the house, but your obligation does not end there. Your obligation is over the length of their lifetime. Putting a horse down is as sorrowful as losing a member of the family.”



Numerous criteria can be used alone or in combination to make responsible breeding selections. One school of thought bases breeding plans on the assessment of phenotype (appearance, size, type, temperament, and ability). When the mare and the stallion complement each other, a mating may be considered. If one of the parents has a perceived weakness we can seek a mate that has considerable strength in that area to compensate.

Have we made a true and honest assessment of mare and stallion? If not, we should seek the advice of a veterinarian or a non-biased industry professional. Simply saying that the mare is pretty, tall, or has some other quality, and that the stallion looks big and powerful, are not evaluations on which to base breeding. If, after close scrutiny, we can say that the mare and the stallion truly complement each other for the desired purpose or use, then a mating could be considered. Remember that if both potential parents are short necked and have offset cannons, the offspring may well be short necked or have offset cannons. That does not mean that if you breed a long-necked horse to a short-necked horse that you will end up with a medium-length necked foal, or that a straight-legged horse bred to one with offset cannons will produce a foal with slightly offset cannons. Genetics do not work that way.

To further complicate the picture, one or both of the parents may not display a trait, but may carry a recessive gene for it, and if both parents contribute their recessive genes, the foal will display the trait. So, as mentioned before, knowing the breeding and production history of both horses is very important. Generally, if you breed "like" to "like," the result should be close to the "type" of the parents.

An examination of genotype (genetic makeup, pedigree and factors in the lineage) helps identify characteristics that may or may not be displayed in the individual. Many qualities are deemed worth knowing in the ancestry, such as a genetic tendency to pass on a particular trait (good or bad) or a genetic mutation. In some cases the idea of crossing two individuals may have to be abandoned due to the risk factors. But, by the same token, genetic factors may lead us to choose a mating that could produce our wonder horse. If, for instance, the genetic background of either parent shows a tendency to throw a bad disposition, susceptibility to a particular disease, or a conformational defect, then the genetic makeup of the other becomes even more important. The breeding and production history of the families can also be used to gauge which horses tend to be more prepotent in stamping their offspring. Unfortunately most traits cannot be guaranteed because of the nature of genes. Witness the degree of difference in full siblings.

Being Objective

As a noun 'objective' refers to the intended goal, and, as an adjective, it means undistorted by emotion, bias or interpretation and is the opposite of subjective. Both definitions can be advantageous when choosing a suitable mate for our mares and our stallions.

Objectively evaluating the functional aspects of conformation of both mare and stallion perfectly supplements pedigree evaluation, performance records, production history, genetic testing and such. It also compliments financial choices, allowing the bargain hunter to get the most value for their budget as well as decreasing the likelihood of producing a substandard offspring no matter the costs.

Consider what happens to the foal with the fabulous pedigree that lacks the physical abilities suggested by the lineage. It will likely be pushed - at its own peril – to reach human expectations based on its ancestry.

Code of Practice

The National Farm Animal Care Council's **Code of Practice for the Care and Handling of Equines** states: "Horses, donkeys and mules are bred for multiple purposes. Established breeders generally follow a specific breeding program producing quality offspring for a specific market."

It goes on to define responsible breeding and recommended practices. It can be found in its entirety here: www.nfacc.ca/codes-of-practice/equine