



PEDIGREE DYNAMICS

Pedigree Dynamics Analysis Methods

Pedigree Dynamics centres on the genetic background of a horse and methods to interpret this information for either planning matings or selecting those ‘most likely to succeed’ for stud or racing purposes.

My system as a pedigree analyst are comprised of a combination of techniques. There are three methods that I employ for planning matings.

In the tradition of Federico Tesio, I use linebreeding as a major component of my analyses. To use this effectively, I have developed and constantly update a set of family charts which encompass all stallions at stud, tracing to their taproot mares.

Linebreeding, which entails reinforcing desirable ancestors in a pedigree in the fifth generation and further back, can require a lot of research. I find with some pedigrees that their genetic strengths are more apparent, or summarised if you like, through ancestors closer up, whereas some require careful scrutiny further back.

Inbreeding is another method I sometimes employ. Senor Tesio not only produced champions such as Nearco, Niccolo Dell’Arca, Ribot, Donatello II etc with linebreeding techniques, he utilised inbreeding as well. Look at the pedigree of Nearco, who apart from some strong linebreeding, is inbred to St. Simon 5f, 4m x 4m, 5f.

When analysing a new mare, I will assess her racing ability and pedigree strength before deciding whether to employ inbreeding in a mating for her. Weaker pedigrees and slow racehorses often need a good genetic ‘kick in the ribs’ to boost their effectiveness in a mating, and informed inbreeding (to the right ancestors) is often a dynamic technique.

Inbreeding has to be used judiciously - conformational and inherited problems need to be carefully looked at and if possible, the ‘perpetrator’ in the pedigree identified. As a general rule, the results are usually more successful when the ancestor to whom you are inbreeding is duplicated through a son and a daughter rather than through one sex only.

Another phenomenon, which I call '**Pattern Breeding**', involves the coupling or grouping of influential ancestors in the pedigree for maximum effect. Over the years I have observed that a high percentage of successful racehorses have pattern repetitions in their pedigrees.