

Breeders' Briefcase

by Cindy Long Chair of the Breeders' Education Committee

READING PEDIGREES, A LOST ART?

Knowing how to read a pedigree enables breeders to select for reproducible health, longevity, genotype, and phenotype.

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Pedigrees are much more than names on a piece of paper. To top breeders, pedigree analysis is more important than DNA because a top breeder can "read" genetic soundness.

Purebred dogs are much more than a pretty cover so it is the "family tree" that determines what is inside the eye-catching exterior.

Most kennel names on the pedigree should be familiar, and certainly some dogs should have the coveted Ch. or even GCh., and ideally, some dogs should be recognized top producers.

It's a fast paced world out there and increasingly, everyone is or wants to be in the express lane. As you may have noticed, that can lead to pileups. If you're too busy to study a stud dog's pedigree and learning basic genetics seems like a waste of time, well, your "breeding program" is headed towards a fatal crash.

According to AKC records, the average life span of a new breeder used to be 5 years, but I'll wager it is now less than 3 years. So it only seems fair to take 3 *minutes* to learn things that can improve your time in dogs. Small rewards, like "bait" lead you onwards and help you succeed as a breeder.

First, accept the fact that names on the pedigree tell you nothing unless you've seen at least half of the first 14 dogs. If a dog is "repeated", i.e., appears more than once, pay particular attention and research that dog. If you haven't actually observed the dog in person, try to get a video. Photos are better than nothing but be aware that digital retouching is common today and can erase the very fault you are trying to eliminate from your breeding program.

Parents and grandparents usually represent the most dominant genes in the pedigree but not necessarily. We'll get to the "doubled up on" factor shortly but for right now, you need to know the phenotype and genotype of the first 6 dogs: sire, dam, and all four grandparents.

The importance of having a knowledgeable AND objective mentor in the breed can't be stressed enough. Depending on which bloodline the pedigree represents, your mentor may be a bit biased. It's human nature. The important thing when selecting a mentor to help you sort out a particular pedigree is: Has your potential mentor actually seen the first 6 dogs on the pedigree and hopefully, some of the siblings?

Look for genetic evidence of

thoughtful line-breeding on a particular dog within the third or fourth generation of the pedigree you are contemplating (literally) buying into. If that dog produced consistently well, count him as being in the first or second generation because his genes are more concentrated and should therefore be more powerful.

A dominant, linebred great-grandsire repeated on the pedigree can contribute as much as one of the first 6 dogs.

Hang on though, before you run into that pedigree pileup, you need to know there's a little glitch in the above statement. More so today than ever before, most so-called line breedings occur as a matter of economy or convenience, not due to study of the genetics involved. A mediocre dog repeated in the pedigree can be bad news. It's up to you to ferret out the concentrated dog's quality before getting excited about a "line-bred" pedigree.

Top ranked BREED winners in the first two generations indicate someone was willing to spend time and money to prove their quality. Those dogs could be your super highway to breeding success. If the pedigree doesn't reflect one or more verifiable (1) top ranked Best of Breed winners within the first three generations, it means one of two things; either there are no outstanding dogs despite any claims to the contrary OR you must accept that incompatible top winners bred to each other for the wrong reasons do not guarantee success. Even if a dog and bitch are outstanding representatives, it matters not unless they are genetically compatible.

A compatible pedigree means that neither sire nor dam share the same

fault either visibly (dominant) or hidden in their genes (recessive).

Ideally, both would be dominant for the most important features of breed type and/or soundness. Do not mistake compatibility as being "from the same bloodline" because frankly, very few real bloodlines exist today. Anyone can get lucky once or even twice. Before you buy into a bloodline, you need to slow down and take a good look at the road ahead. You must have a readable map (pedigree) because there's no shortcut.

Forget the scenery, see the dogs and apply what you've learned into structuring a pedigree that will last as long as that overpass ahead!

As a Master Breeder, I've presented dozens of seminars on breeding practices but as years went by, it became increasingly obvious that many breeders read names on a pedigree but have no idea if those dogs were prepotent and if so, for what? Today breeders put more emphasis on ring fame and not nearly enough on prepotency and actual quality. Breeding to a top dog means saleable puppies but it may not increase your reputation as a gifted breeder.

Ring success can be bought with a good handler and a fat wallet, What you do afterwards involves you! I trust that you are willing to take the time (gasp) to learn the basics and apply yourself to doing it right.

Portions extracted from AKC Gazette Top Fox Terrier column, 6/2008 and ShowSight Magazine 2012.

http://www.thedogplace.org/GENETICS/ Reading-Pedigrees_BJA-133.asp