Planning a Breeding: Some Tools and Tips

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"[Breeders need to] visualize the sire and dam and their parents and grandparents….Then [they] can create [a dog] by breeding one almost like the ones they have visualized." (Grossman, 1992)

VISUALIZING A PEDIGREE:
USING PHOTOGRAPHS AND A PRISM PEDIGREE

One of the most important things breeders can do to improve the quality of puppies they produce is to visualize the sire and dam, grandparents and great-grandparents of their proposed breeding (Grossman, 1992). Visualizing a pedigree involves trying to "see" in your mind’s eye, the physical and mental qualities each dog in the first 3 generations might contribute to the offspring of the planned mating. Two ways to visualize a pedigree include: 1. compiling a Photograph Pedigree and 2. using the Tool Kit Prism Pedigree.

1. A Photograph Pedigree consists of laying out, in a pedigree format, photos of each dog in the first 3 generations of a planned mating.
   
   **Advantages:** Breeders can "see" the actual profile and image of each dog and gain an idea of how ancestors impacted offspring.
   
   **Disadvantages:** Still photos, which often show dogs in a stacked, show pose, don’t give information on a dog’s movement, temperament, health and full range of conformation virtues and faults.

2. A Prism Pedigree, which is included in the Pedi-Score Tool Kit, is made up of stick figure Basset Hounds and is based on a 5 color scoring system, ranging from Blue (Excellent) to Brown (Very Poor). Breeders color the body parts of the stick figures, basing their choice of color on how good or bad the feature is.
**Advantages:** (a) the Prism Pedigree takes up where photographs leave off and allows breeders to score the movement, temperament and as many conformation traits as they desire in each dog in a 3 generation pedigree; (b) breeders are able to write notes next to each stick figure regarding health factors and conformation traits that dog has passed on in the past and may be likely to pass on in the future.

**Tips on Using the Prism Pedigree**

1. Make xerox copies of the Prism Pedigree (Tool Kit Chart #8).
2. Decide on the conformation trait(s) or health factor(s) you wish to improve.
3. Color code this feature on each stick figure (see Figure 1). **Tip:** One of the easiest ways to "color" or evaluate a stick figure is to first score your dog with numbers using Tool Kit Chart #1. Example: If you gave the "neck" of a particular dog a score of "2" (Above Average), on the stick stick figure dog you would color the neck Red, which is the color for Above Average. (The Tool Kit number scoring system has been designed to match the color scoring system.)
4. Note how many dogs possess the trait you are hoping to produce in your puppies.
5. Based on how you think the breeding might turn out, color code the trait in the 8 predicted puppies.

**Figure 1: A Prism Pedigree Stick Figure**
(Numbers have been added to the stick figure to help explain how a breeder may color certain traits)

1. Movement from front  8. Ribcage
2. Front side movement  9. Length of keel
3. Rear side movement 10. Shoulder layback
4. Movement from rear 11. Upper arm length
5. Bone 12. Sternum
6. Rear angulation 13. Bite
7. Temperament 14. Feet

**Tool Kit Color Scoring System**
BLUE: Excellent
RED: Above Average
YELLOW: Average
GREEN: Below Average
BROWN: Very Poor

Note: For additional information on stick figure pedigrees, refer to Carmelo Battaglia’s excellent work, Breeding Better Dogs, 1986, Atlanta, BEI Publishing.

**Breeding Tips**

Experts offer the following breeding tips based on their many years of experience. A lot of these suggestions will relate to your Tool Kit scores and color codes. Be ready to start over. (Seranne, 1980) After carefully evaluating the faults on some of your dogs, you may come to the conclusion that certain individuals are not worth breeding. If so, have the courage to place them as pets.

1. A bitch of superior over-all quality with one major fault is a better breeding prospect than a mediocre specimen who possesses a lot of minor faults. (Seranne, 1980) Trying to correct many faults will take too long. It is easier to correct one major, visible fault. For Tool Kit users, a mediocre bitch may be one who, on important traits such as movement and
angulation, scores a lot of 4’s (Below Average) or has these features colored Green on her stick figure.

2. The best foundation bitches tend to be those that are linebred and from well-established show stock. (Grossman, 1983) Ideally these bitches should score a 1 (Excellent), 2 (Above average) or 3 (Average) on forequarters, shoulder placement and angulation, balance, temperament and bone as well as having good health.

3. In a foundation bitch, avoid a short neck, loaded shoulders, a wide front, a bad bite and/or tail set and steep shoulders. (Grossman, 1983) These faults are particularly difficult to improve if a bitch is linebred.

4. Faults or characteristics that can more easily be bred out include heads, toplines, coat, general type and size. (Grossman, 1983) Tool Kit scores of 4 or 5 on these features can often be corrected in the next generation if a proper mate is chosen.

5. Don’t mate dogs to each other that display the same faults. (Seranne, 1980)

6. A linebred mediocre individual is more dangerous to a breed’s gene pool than an outcrossed mediocre one. (Craige, 1997) Remember, linebreeding (i.e., having an ancestor common to the sire and dam in the first 3 generations) cements in qualities. Linebred individuals who possess faults are more likely to pass these on to offspring. Because of this, only linebred dogs of very high quality should be kept in the breeding program. A breeder’s goal should be to produce a linebred individual of superior quality. Breed to correct one fault at a time. (Seranne, 1980) Try to improve the fault by not resorting to an outcross, since the latter may bring in a whole new set of problems.

A 3-Step Breeding Program

Grossman (1983) suggests the following breeding plan:

1. **Decide which traits are most desirable and which faults are totally unacceptable.** In addition to good conformation, master breeders feel that resistance to disease, fertility and elimination of nervousness and viciousness should be top priority in any breed.

2. **Devise and use a scoring system for virtues and faults to track your genetic progress, placing highest priority on the most important features.** The Pedi-Score Tool Kit was designed to provide a scoring/recording system for breeders. As you establish certain traits in your line, emphasis and scoring can be placed on other traits.

3. **Breed consistently to your best linebred individual until you produce a better dog, then linebreed to that individual.** Linebreeding (or inbreeding) should only be used when an individual has exceptional qualities and no outstanding faults.

REFERENCE:


