

IT SEEMS TO ME by Tom Horner Reprinted from Dog World Magazine 5-1-81

Outcrossing is a Tricky Business

There is no doubt that the great majority of successful dog breeders find that line breeding – the mating of related dogs and bitches from the same bloodline or family – is the highroad to success.

A few breeders are very successful by carrying this process a stage further and inbreeding, that is mating together very close relations, father to daughter, mother to son, brother to sister, but this is a procedure full of pitfalls which can only be successful when combined with a very high level of knowledge of one's breed, the quality of the forebears of one's stock and a certain ruthlessness not all breeders possess. It is not a method for novices to play around with.

To be successful, line breeding and even more so inbreeding must be combined with selection. It is useless to embark on these methods if one cannot bear to be parted from little Johnny who was born with an eye defect or Susie with the slipping stifles. One must be selective and if a particular mating proves unsuccessful be prepared to discard the whole litter and start again.

By discarding I do not mean to destroy or act uncaringly towards the litter. If they are not of a standard of merit to advance one's own breeding the puppies will still make good pets. Any that are defective should be neutered before being placed.

Selection in line breeding frequently entails making use of animals from the same bloodline but carrying one or more different bloodlines on the other side of the pedigree of one of the partners. This amounts to a partial outcross and can be beneficial in bringing in specific points that are desired or correcting persistent faults by the introduction of a small amount of unrelated blood.

Hybrid

There is a factor known as hybrid vigor which is a spin off of outcrossing. It can increase the vitality and virility of the stock and also improve pigmentation. When close breeding is carried on over a long period it is sometimes noticed that the stock begins to appear overbred, bone becomes lighter, individuals smaller and/or highly strung, less active or dull in their general demeanor; pigmentation will often become paler and difficult to maintain, and in extreme cases both dogs and bitches become poor breeders with smaller litters, weakly puppies and males may have a reluctance to mate. All these conditions indicate that an infusion of new blood is needed to revitalize the stock.

This can be done as a partial outcross as mentioned above when one of the pair has some of its ancestry from one or more different bloodlines from the main family within which the breeder is operating. Alternatively, it can be done by using as one parent an animal of completely different breeding from one's own line. In some breeds with a

very small gene pool, all descended from a limited number of individuals, this will be impossible. Indeed, in most breeds if one goes back far enough in the pedigrees one will find ancestors common to both of the proposed parents. But in breeds where there are reasonably large numbers it is usually possible to find individuals with no ancestors in common in the first few generations, for practical purposes a complete outcross.

Of course, pedigree is not the only factor that must be taken into consideration when choosing an outcross mating. Great care needs to be taken not to introduce something one does not want through the new bloodline. In my favorite breed, the Bull Terrier, in which the whites are very often superior to the coloreds, there have been many instances of breeders using a white stud dog to improve their coloreds, only to find that the pick of the ensuing litter was white, and so though they may have bred an outstanding Bull Terrier it has not achieved what they set out to do.

Breeding Back

The usual procedure after introducing an outcross is to breed back in subsequent generations to the original family so that in choosing the outcross one must seek first and foremost to find an animal, it is usually a male, which excels in the points one is trying to improve. If there is a falling off in substance or pigmentation, the outcross must obviously excel in those points.

One never finds in practice exactly the right dog for one's bitch. There always seems to be some little thing that might be better or different. One would wait forever to find the perfect partner and the better the bitch the harder it becomes to find her a suitable mate.

But it is not a bad thing to proceed slowly, consolidating the progress as you go, cross out, breed back in and if necessary, after a generation or two go out again, perhaps to the same outcross line as before, if the hoped-for benefits materialized from that mating. If not, then a different line can be tried to bring about the desired improvement.

In general, most breeders find that the partial outcross is all that is needed to keep their stock healthy, typey and virile, but there are times when a complete outcross seems to be indicated or an outstanding dog is brought in from abroad.

Results from the first generation or two after an outcross can be disappointing but in the long run, it is usually found to have had beneficial effects. Occasionally one is lucky to choose an unrelated pair that *click* and produce something really outstanding in the first generation – a shot in the dark that pays off – but this is an expensive hobby as it does not happen very often, and well thought out line breeding is far more likely to bring good and consistent results, plus, with a bit of luck, steady improvement in the stock.