Choosing a sire

By Tully Williams
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In this article I am going to try to give an overview of breeding, however keep in mind that in the limited space available this must be only a short summary of what is a large and complex subject. If it wasn't, then everybody would be breeding good dogs! And unfortunately, that is not the case. The large number of very ordinary dogs is testament to the difficulties involved. The fact that most breeders fail in breeding good quality dogs consistently should tell us one thing: there is something wrong with the way the majority of "breeders" go about it. Einstein's definition of insanity applies here:

"*Insanity*: doing the same thing over and over again and expecting different results."

So if what the majority of breeders are doing isn't working, how should we go about breeding dogs? Firstly, we should look at the way most go about it, and avoid that method. And then we should seek an alternative method that has more chance of success.

What type of breeder are you?

Firstly it is helpful to determine what type of breeder you are. Breeders range from serious dedicated breeders with long term goals and aims, with a strong knowledge of their craft, to more occasional breeders who just breed the odd litter because they like having a litter of pups every now and then, and lots of variation in between. (I want to be clear from the outset that I am not criticising anyone's motives for breeding – in my view everyone should have the right to breed in the way they like, to make their own mistakes, and should not be forced to do it according to someone else's ideals.)

However, the choice of a sire can be quite different depending on which category you fall into, and this article is about how to breed good quality dogs. So let's consider what determines a "good" breeder from a "poor" one. One way of looking at this is:

1. Good breeders – the dogs they breed are *superior to the average* of the breed
2. Poor breeders – the dogs they breed are *inferior to the average* of the breed

Thus the good breeders are contributing to the improvement of the breed, whilst the poor breeders are contributing to its deterioration. However, this can sometimes simply be a question of how much money a breeder has to spend – one with a lot of money can buy up the best dogs and is likely to breed some good dogs, even though they may not really be a better "breeder" than one who is forced to start with poorer stock.

One problem with this definition though, is that quite often what I would consider to be poor breeders can breed good dogs. If they start with top quality material, they may breed good dogs even though their dogs are deteriorating over time. It is quite

common to see breeders whose dogs are worse after ten or twenty years than what they started with. Only if you can say that you have bred dogs *better* than what you started with have you actually contributed to the improvement of the breed.

So another way of looking at it is whether a breeder's dogs get better over time, or worse:

1. Good breeders – the quality of their dogs *improves* over time
2. Poor breeders – the quality of their dogs *deteriorates* over time

Of course, there is a lot of variation amongst breeders, from breeders who improve their dogs a great deal, to those that maintain them about the same level, those whose dogs deteriorate a little over time, and those whose dogs deteriorate a lot.

> For our quality to improve, this means that in general each generation should be better than the previous one.

I consider a good breeder as one who fulfils *both* these requirements: they breed dogs better than the average for their breed or type, and their dogs continually improve. So hopefully your aim as a breeder is to breed dogs better than average, and to see them continually improve.

Aside from this, there are three aspects that determine what type of breeder you are:

1. The number of dogs you breed from
2. Your turnover policy
3. The system of breeding you favour

Fewer dogs limits selection, which limits progress. This is fairly self-explanatory. The breeder with one bitch who hopes to join it to a sire and breed a champion is facing an uphill battle. They would probably be better off buying rather than breeding.

When it comes to turnover, if you keep a small number of dogs and are not willing to turn them over, then your progress will also be limited. This turnover determines your "generation interval". When breeding, the ideal is to keep that interval as short as possible so progress can be as rapid as possible.

> However, most often breeders try to keep this "generation interval" as *long* as possible, even though this is usually not a conscious choice.

Why? Because the quality of their dogs is going backwards. That is, they are still breeding from a bitch or dog into its old age, because they have nothing better to replace it. If this is the case, then it certainly may be a wise policy to breed from your dogs as long as you can, in order to slow down the rate of deterioration! This is very common, but it means that those breeder's dogs are deteriorating, not improving; they are simply slowling that deterioration as much as possible. As I said, this is very common.

So a breeder who keeps only one or two bitches for those dog's entire lifetime, and doesn't replace them until they are getting into old age, is not going to make any real

progress. If they choose their bitch and the sires carefully, they may still breed some handy dogs. However no real progress can be made when the generations stagnate.

My policy is to turn over the generations as quickly as possible. Thus I might breed only two or three litters from most bitches before selling them on, as by then I aim to have a better daughter of breeding age ready to replace them. If I don't get a better daughter then I move the bitch on anyhow, as she is not contributing to improving my line. I may retain a really exceptional brood bitch for longer, or one that I am particularly attached to, but this is the exception rather than the rule.

System of breeding

And the third aspect that determines the type of breeder you are is your system of breeding. This has many variations between two extremes. At one end are probably the majority of breeders whose policy is always to outcross. I have read comments from UK breeders advocating that you shouldn't have the same name occur in a pedigree more than once or twice in four generations or something along those lines, and there are various Australian breeders offering the same advice.

At the other extreme is the most intense inbreeding, breeding brother and sister together every generation. There was a breeder in Victoria who followed this policy for many generations that I know of. As far as I am aware he never had any problems, but with other dogs that might not be the case. If that was the case, then you can be confident the dogs didn't possess any dangerous genes and can continue with this close breeding with impunity. However this doesn't allow for a great deal of selection.

In between these two extremes are other variations. Professor Phillip Onstott described some of these variations well, so I will quote him here:

> "Some breeders outcross their dogs (or think they outcross them) through fear of the degeneracy of type they believe results from all inbreeding. There are others who line breed (or think they do) in an effort to obtain the good results of inbreeding without assuming its alleged, and sometimes real, hazards. These men are like the Irishman who cuts of the puppy's tail a joint each day so that it will not hurt him so much as to cut it off all at once. There are yet others who, having been told that good dogs are produced by inbreeding, accept inbreeding uncritically as a matter of policy. They inbreed (and know that they inbreed) merely for inbreeding's sake. A fourth class inbreed one generation to obtain their type and outcross the following two generations to restore to their stock whatever stamina may have been lost by the inbreeding process. All of these kinds of breeders sometimes produce good dogs, despite that all of the policies and reasons for them are ill founded.
> "There are, of course, a few breeders who know exactly what they are doing. They inbreed when inbreeding is indicated; they line breed with a purpose; and they outcross to obtain certain characteristics which they desire to annex to their stock."

If you have strong views one way or the other this might determine the system you follow. If you want to be a top breeder, then you must take the time to understand the

uses of all these different types of joinings, their effects, when they are or are not indicated, and how to best apply them. Every situation and joining is going to be different, so no hard and fast rules can be laid out. However, as I explain below under the heading "assessing the pedigree", some degree of closer breeding is likely to be the most successful when carried out knowledgeably.

I personally am not a big fan of wide breeding, or outcrossing, as a system. I believe it simply dilutes and breaks apart the good combinations of genes that the good dogs possess. When years ago a zoo attempted to resurrect an extinct breed of wild cattle from which our modern breeds descended, under the advice of geneticists, they simply crossed a whole range of different breeds together – the widest type of breeding possible in order to break apart and reshuffle all the genes that had been carefully segregated and assembled in each of those newer breeds. The result was a breed of cattle that closely resembled the extinct breed. This is what outcrossing as a system tends to do – the animals revert back. There is a phenomenon in breeding referred to as "regression to the mean". This explains the tendency of animals to breed offspring more towards the average of the population. Thus top quality dogs tend to breed pups not so good as themselves, while very poor dogs tend to breed dogs a bit better than themselves. So generally when breeding good quality dogs, regression to the mean is our enemy. Closer breeding to high quality animals fights this tendency, while just like in the zoo experiment wide breeding tends to accentuate it.

And also, if you know a line of dogs that has been fairly closely bred without dangerous genetic faults showing up, you can be more confident that it doesn't carry those faults. On the other hand, outcrossing tends to hide these dangerous genes from view, but they are being spread far and wide all the while. It is like the ostrich who sticks his head in the sand and pretends nothing is happening. Conversely, closer breeding can bring these faults to light (if they exist) where they can be dealt with.

> Outcrossing is like blundering about in the dark –
> just because we can't see the obstacles doesn't mean they aren't there.
>
> Closer breeding is like switching the light on –
> all of a sudden we can see if there are any obstacles,
> and if there are we can either avoid them, or work to remove them from our population.

In my view, those who outcross can cause more problems for the breed, because they can simply spread disease causing genes far and wide while claiming ignorance of their existence. Those who choose to breed closely enough to switch the light on, have the chance to either avoid or remove those genes from their population. However, this does require more skill and knowledge, and everyone is entitled to their own point of view; this is simply the way I look at things.

For those who would like a simple formula for breeding good dogs I would offer the following. Buy the best bitch or bitches you can from a well-established, relatively closely-bred strain of dogs that consistently produces that type of dogs you are after. Then join your bitches to the best dogs you can of that same strain. That, for most, might be the best advice I can give. And I would suggest buying from the parent stud itself, not from daughter studs even though they may be cheaper. I made this mistake

myself early on, and wished I had payed the extra and gone straight to the parent stud. Inexperienced breeders can turn good dogs into rubbish in one or two generations, so be careful. This leads to my next section:

Should you breed from your own males?

The short answer to this is NO. In my view, far too many people breed from their own males simply because they are their own, when there are much better males available elsewhere. This is particularly true if you tend to outcross as a breeding system – in that case you are much better off taking your bitch to the best dog you can find.

Campaspe Bounce

Until I bred Campaspe Bounce, I never bred from one of my own males. My philosophy was that why would I breed from one of my own while there were better dogs available elsewhere? To do so would simply limit the progress I was likely to make. I believe there are two main situations in which you should breed from your own males:

1. Your males are better than those elsewhere, and/or
2. You have created your own consistent strain of related dogs and don't want all the hassles that come with an outcross

In the 2nd case, hopefully your strain is better than others also, otherwise you would be better off changing to one of the other strains. However this only applies if you do indeed have a "strain" of related dogs, rather than simply a jumbled collection of mostly unrelated animals.

When I started, after trying literally hundreds of dogs from a whole range of "bloodlines", I eventually settled on the Yulong Russ blood dogs as being closest to

Moorlands Tomie

my ideal. However there wasn't a breeder breeding that blood consistently. There were dogs with varying amounts of that blood, and I decided to try to catch the last of that blood and create a consistent strain of dogs from what little was left. Moorlands Tomie had more Yulong Russ blood than any other dog around except his sister (and was an exceptional dog in his own right), and so, after repeated progeny tests revealed him to be free of any genetic problems, I formed my strain around him.

As I mentioned before, until I bred Campaspe Bounce, who was by Tomie, I didn't breed from a single male of my own as there were still better dogs elsewhere of the Yulong Russ type blood. However, since that time I have mostly used my own sires. Also outcrossing is fraught with dangers of bringing in disease causing genes (remember the obstacles hiding in the dark?) and is a difficult process in general.

<table>
<tr><td rowspan="8">MOORLANDS TOMIE</td></tr>
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MOORLANDS TOMIE	Cavanagh's Esjay	Cavanagh's Craig	**MILLERS PETE 2ND**	**YULONG RUSS**
				Moorlands Tracey
			Flockton Blondie	Flockton Chum
				Herdsmans Maggie
		Cavanagh's Teena	Vervale Beau	Herdsmans Kenny
				Vervale Mitzie
			Marlowe Julie	Kismet Rob Roy
				Marlowe Gail
	Barravore Jean	**MILLERS PETE 2ND**	**YULONG RUSS**	Austral Star
				Campden Jip
			Moorlands Tracey	Sinclairs Butch
				Colindale Floss
		Timaru Belle	Rosemont Ted	Lyster Rob
				Rosemont Lass
			Minniebum Dell	**YULONG RUSS**
				Herdsmans Dell 2nd

Pedigree of Moorland Tomie showing linebreeding to Millers Pete 2nd and Yulong Russ

So if your males aren't better than those available elsewhere, and if you don't have a strong, related strain of dogs, then don't limit yourself by only using your own males.

Choosing a sire

So once we have our bitch on heat, hopefully of high quality and carefully chosen, which sire are we going to use? Usually we will have a short list of the dogs we like that needs whittling down. In the next section I will discuss assessing pedigrees, but I believe there is one over-riding consideration in choosing a sire: *how he breeds*. It doesn't matter how he works, how many trials he has won, etc., etc., all that matters in a breeding animal is what their progeny are like. When you see a number of good dogs that are all by a certain dog, and even better if they are out of different bitches, then that dog is likely to be a good choice.

There are very limited dogs or bitches that are actually capable of breeding progeny as good as or better than themselves. There are numerous reasons for this that would take too long to go into, but by looking at the progeny you bypass all these considerations. And if you breed from a dog and a bitch and the progeny are disappointing, don't keep breeding from them hoping for something to change, no matter how good they may be.

So that proven sire is likely to be an older dog that has had time to breed a few litters and for those to prove themselves. If using an untested sire, then the pedigree (along with the dogs own natural ability) is the best indicator of how well that dog is likely to breed.

Assessing the pedigree

The pedigree is a great guide and another tool in assessing a breeding animal. Remember though, not to let the "pedigree wag the dog". Or, as the story goes that someone once made excuses after their dog's poor showing, with the comment that "he's very well bred, you won't see a better pedigree", to which the reply was "next time bring the pedigree and leave the dog at home!" The moral is don't breed from a dog just because it has a good pedigree, if it is no good itself.

As I said earlier, some outcross breeders advocate a pedigree where no dog is repeated more than once or twice in four generations. *This is the pedigree I would avoid like the plague.* Why? Because there is likely to be very little consistency. Breeding is always a game of chance, however the good breeder shortens the odds, or improves the probabilities in their own favour, and outcrossing tends to work against this.

The outcross pedigree often contains the following selection of dogs: some weak, some strong; some timid, some bold; some that broke wide, some that shouldered; some that barked, some that didn't; some with eye, some with none; some that would cast, some that wouldn't; and so on and so on. And that is what you are likely to get in the litter – any combinations of the above, and not likely the combination you hope for!

And most likely there are more poor quality dogs than outstanding champions, because the champions are rare. Such a pedigree also generally contains 30 different dogs in four generations, or 62 different dogs in five generations, all likely quite different from each other.

In contrast, the pedigree I look for is a pedigree with as few poor dogs and as many top quality dogs as possible, and those of as similar type as possible for the most important traits.

By way of contrast to the outcross pedigree, below I have included the pedigree of Herdmans Tommy, who was a famous and highly influential Border Collie early in the breed (around 1900). It shows the close breeding that was undoubtedly a factor in Tommy's own abilities and his influence as a sire. (More examples of varying degrees of closely bred pedigree's can be found on my website).
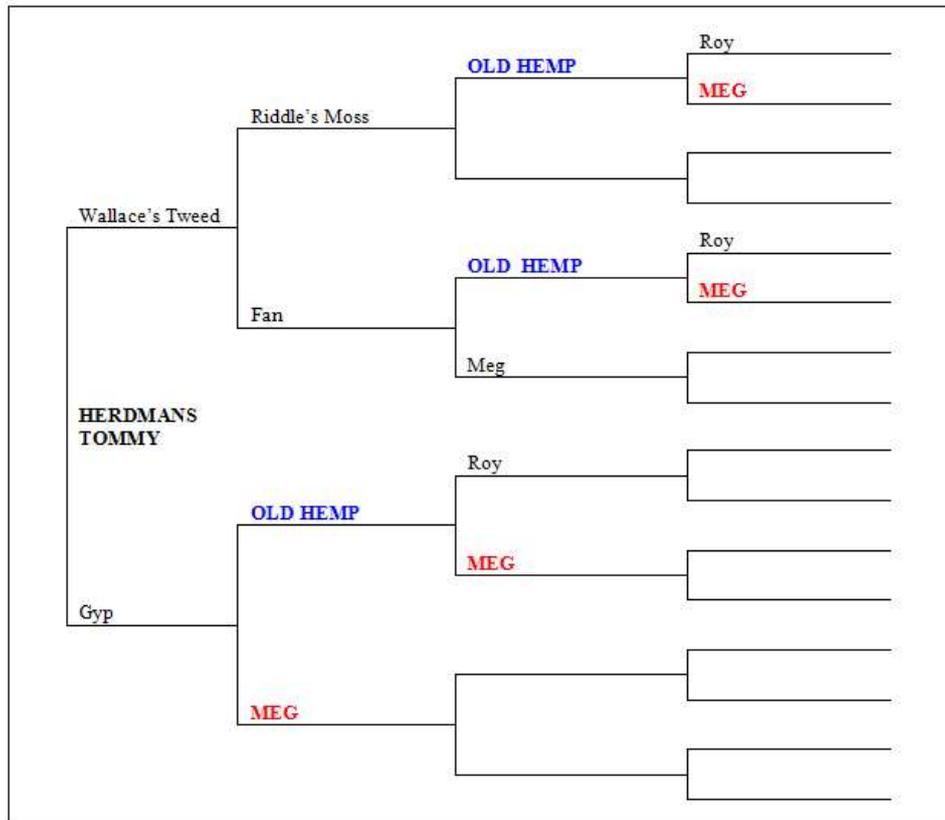
Pedigree of Herdmans Tommy showing close breeding to Old Hemp and Hemp's mother Meg

If we could find 30 different dogs, all of exceptional quality and all of a very similar working type, and all unrelated, then outcrossing might actually work! However because this is not possible, then in order to have a pedigree of this type we must have less dogs in the pedigree. Thus instead of 30 dogs in four generations, it will be something less than this depending on the individual case.

If I want a pedigree with as high a percentage of exceptional dogs and of as similar type as possible, so that I can breed exceptional dogs of that type as consistently as possible with the fewest failures, then by default I am going to have to double up or more on the exceptional dogs. *This is because the exceptional dogs are rare, and they are likely to be related.* The best dogs tend to come from the same or very similar sources. Go to a breeder who outcrosses, and take home an eight week old pup, and you just went in the lottery. Go to a breeder with a strong family of more closely bred dogs that produce that type fairly consistently, and, although there are no certainties with genetics, your odds just improved out of sight. (However, don't believe anyone who claims they breed "100% successes" – either their standards are very low or they are telling stories!)

So that is the sire I would look for – a high quality dog of the type you are after (hopefully of the same strain as your bitches) with a pedigree of high quality dogs of the type you are after.

Priorities

When selecting the sire, there is no such thing as the perfect dog. Every dog will have strengths and weaknesses. So how we prioritise those will effect our decision. For example, although I like the *look* of a certain type of dog or a certain size etc, and would like all my dogs to look like that, that is low on my list of priorities. The more things we make essential in our breeding program the slower our progress will be.

I rate certain traits as essentials, and others less so, and looks go somewhere low on the list. So what tends to happen is my dogs get more and more consistent for the traits I rate as essential, and in the less essential traits the dogs are not so consistent, and in the looks department things are fairly inconsistent. My dogs, even though fairly closely bred in the blood I like, don't *look* particularly consistent because I haven't selected for looks. It is the *instincts* I am most interested in. Over time, as I fix the essential traits more and more, I will be able to concentrate then on fixing the less essential traits, and finally on creating the look of dog I like. Other breeders are more fixated on "type" and although their dogs may all look very similar this doesn't mean there is much consistency in their working instincts. This is one of the differences between "show" dogs and working dogs – working dogs are usually selected more for their abilities than their looks, and so there tends to be more variation in looks. However it is common even amongst working dog breeders to place looks high on their priorities.

So when choosing a sire, prioritise your requirements and concentrate on the most important, leaving the others for a later time.

Monitoring your progress

Once we choose a sire, and breed from him, we need to assess his performance with the bitch in question. If the litter produces pups better than one or the other parent, then we have succeeded in some measure. If we then retain that better pup and repeat the process, we are on our way to improving the breed and becoming a good breeder. If, however, there is nothing as good or better than at least one of the parents, our breeding program is going backwards. If that is the case, we need to determine the cause and rectify it.

Conclusion

If you really want to breed good dogs, you must have a long term approach and plenty of patience. Onstott said that:

> "Herein lies the trap for the novice breeder of dogs who, armed with a little genetic knowledge, sets forth to breed *a* dog that will go best in show at Westminster, paws down. The likelihood of this being accomplished in a single breeding, even from a sire and dam of undeniable excellence, is of the same order as the total numbers in a Mexican lottery. It is true that in the lottery somebody wins, but we are stressing the probability, not the win. The purpose of this book is to "rig" the lottery so that the probability of winning is increased."

So in general, my advice is to find a consistent strain of dogs (not half a dozen different strains all with something you like) that most closely resembles your ideal. Breed within that strain and work from there, always demanding that each generation is an improvement, and only outcrossing when you desire to bring in some quality your strain lacks. If you do outcross, be prepared for three, four or five generations in order to succeed in bringing in that new quality. And be very careful when outcrossing that you don't bring in genes for some genetic disease (frankly, the thought of outcrossing from inside a true, related "strain" of dogs scares me!). This is the "easy" way to breed handy dogs. The hard way is create a consistent line of high quality dogs where one didn't exist before – only attempt this is you have *lots* of patience, a great deal of determination, a good knowledge of what you are about, and you love a challenge!

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