The use of studs... not in home building but the dog world

Like most other dog breeds, the Leonberger in the US (as in Europe) has to deal the problems of the ever lurking threat of overused studs in our population. We have a small breeding pool with a relatively small number of litters produced per year (on average about 35) so it does not take many breedings to produce a high percentage of a generation born in one year.

So what are some of the problems associated with using one stud excessively and using, in general, only a few available studs in a population?

- ✓ A purebred dog population needs to maintain a certain genetic diversity to stay healthy and functional in the future. Using only one male excessively and only a few more sporadically decreases the genetic diversity and maneuvers us into a corner to find suitable breeding partners in the future. The only way out would be to keep importing many dogs from Europe of whom we do not have as much background information.
- ✓ By putting our eggs in only one of very few baskets, we are taking very large risks. If the "chosen ones" are carriers of genetic diseases (or are even affected with late onset diseases), their "bad" genes will be widely distributed within the population and will most likely surface extensively in the future.
- ✓ Within a couple of generations, most of our dogs will be related to each other. The sons of popular studs cannot be effectively used even though they might be better than their father, because many females will be half sisters aunts or cousins. At the same time, breeders will have a hard time finding males for their daughters and granddaughters of popular studs without close line breeding.
- \mathbf{v} Using a male often while he is quite young does not allow us to evaluate whether he will develop a serious disease in mid-life, nor if his offspring might develop serious diseases.

STUD DOG MANAGEMENT – WHAT DOES THAT REALLY MEAN?

To manage your stud dog is basically to decide whether to breed your dog to a certain female at a certain time or not. It includes deciding if your male should be bred at all, how often your male is bred, how the breedings are spread out over a certain period of time, and to whom he is bred. There are three simple rules one should follow if one is serious about keeping the Leonberger population safe.

- \mathbf{v} Use a male only a couple of times and then wait to see how his offspring turn out before using him again.
- \mathbf{v} Use a male no more than approximately 8-10 times over his lifetime.
- \mathbf{v} Be selective in who to breed to, you can say "No".
- \mathbf{v} Do a repeat breeding only in rare cases with enough time in between to evaluate the first litter.

Let's look at those rules and the reasoning behind them in more detail:

When in his lifetime should a stud be used?

Sometimes a stud is used "only" six times before retirement, but it happens between the age of two and three. What is the problem with this? Many genetic diseases do not surface in the first 12-24 month of a dog's life. A young male might develop some major health issues when he is three years old. That in itself would be a big problem. In addition, using a male six times quickly in a row does not leave any time to evaluate the offspring and adjust the usage according to their health and development. Using very young males extensively harbors a large risk of not catching problems early enough to adjust.

How often should a stud be used?

Almost everybody who is interested in the dog world has heard about overused studs, popular stud syndrome, and cases where one stud has extensively spread "bad" genes in a population or just produced so many offspring that genetic diversity of a population is affected. Yes we want Leonbergers to look like Leonbergers but in order to keep genetic diseases at bay we need to preserve a broad base of genetically diverse breeding animals. Often people ask: "I am just

the puppy buyer, why should I care and what can I do?" or they say: "I am just the breeder, looking for the THE best male, why should I not use him?" or they say: "I am just the stud owner, accomodating the breeders – I like to see children of my boy – it is the breeders decision, why should I care?" The simple answer to all three questions is: You should be concerned about what is best for the breed and the population, in addition to what you think is best for your breeding program and your individual dog. In the end, it will pay off for you as well if you are looking for a Leonberger in the future!

Whom should a stud be bred to?

Last but not least, if you have a nice looking, healthy male with a great temperament should you make him available on a first come, first serve basis? Should you just trust the judgement of the breeder alone, that it is a good match? No, you yourself have the responsibility to provide and gather as much information to be able to give an informed "Yes" or "No". Even the best looking male might not be the best match for a certain female, either because of doubling up on conformation issues or health issues in the lines or a mismatch of temperament. If you do not feel comfortable with the pairing up, or you cannot get enough health information about the female's line or are not happy with her temperament, just say "No".

What about repeat breedings?

Repeating a breeding without waiting at least two to three years to assess the health, temperament and conformation of the first litter can be very risky. Remember, many health issues will not surface until later in a dog's life. Be smart, think about the implications for your dog, the puppies AND the population/breed.

So what can we do? What is an example of a sensitive managing plan for a stud?

If you do not know many people in the breed, find a mentor that can help you gather information. You should know your dog very well and identify a few issues in the dog and/or line (health, temperament, conformation) that you do not want to double up on. For example, X will not breed to a dog with a sway back because her dog already has an issue with a very soft top line, Y will not breed to a dog that has siblings with hip dysplasia because it is also in his lines.

Now people are calling and asking for your dog's services

You should make sure that you have all the information you need from the female (LCA kennel, BACL, health test, health issues in her lines, check out her temperament, photos of the female as well as any puppies from previous litters, etc.). Ask breeders you trust for advice, do the two lines have any issue together? How often should you say yes? Ideally a stud should be used 2-4 times with females from different lines (breeding to sisters or mother and daughter increases the chances that IF the combination of that line is bad, you have two troubled litters on your hand). After those first breedings, one should wait until the offspring from the first two litters are at least two years old. Several of the puppies should be X-rayed, CERFed, thyroid tested and possibly BACLed. If the litters seem to be without severe genetic problems, then one can use the stud again for one to two maybe three litters a year while keeping a close eye on all offspring. If a litter produces some minor health or temperament issues, one should avoid that line in the future. If significant genetic issues crop up, one should seriously consider pulling the male out of the breeding pool and asking the health committee for advice. In our relatively small population, 10 litters sired by one male seem plenty enough – remember we want to keep a genetically diverse population. Frozen semen might be useful IF the stud reaches an above average age with no severe genetic problems in his prodigy with outstanding temperament, more breedings might be warranted.

Who is responsible to keep a managing plan like this?

- \mathbf{v} For the most part, the stud owner is responsible! Just say "No" if your male has sired enough litters according to plan. The stud owner's responsibility does neither start nor end with the breeding.
- ✓ Second of all the breeder who should have an interest in not using the male that has already been used several times

 think about the population and who your puppies can breed to down the line. Wait with a repeat breeding until the puppies from the first litter are at least (!) two years old and evaluated.
- \mathbf{v} Third but not last the puppy buyer help the breed and the population by not asking for the popular stud as father, reward the breeders that look for temperament, health and a "different" male. Support responsible breeders!

Lets work on this together and keep our population genetically diverse!