

New breeding methods!

Here is the full article on "Double mating", from Health seminar in Finland august 2014.

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Photo: VA-Photo, Vagn Andersen.

Double mating!

- Requires luck!

-but is a breeding method for the benefit of the gene pool.

- By Gitte Thorsen, Kennel Hammersmølle.



One sire or two sires?

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Foto: VA-foto, Vagn Andersen.

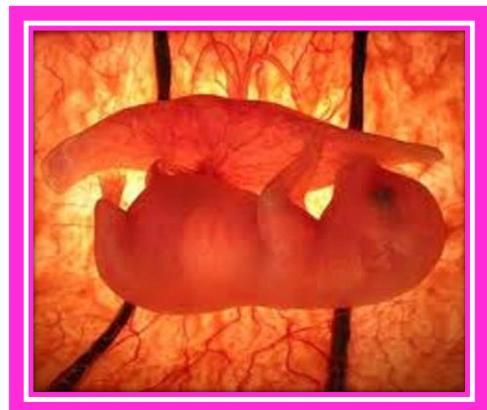
A couple of years ago I attended a health seminar held by Danish Terrier Club's health committee. One of the lecturers was Birgitte Schjøt and as always she brought new inspiration and help with the latest knowledge on the topic of dog breeding. This time Birgitte suddenly asked the audience:

“Why not use two male dogs when you breed your bitches?”



Dear me! The room grew quiet, but little by little people started mumbling and a lively discussion began.

Many asked more questions about the subject, while others remained completely dismissive.



In my case Birgitte's question had planted a tiny seed in my mind, which quickly began to grow. Today it has become a big, strong and interesting result.

I turned the idea over in my mind again and again in many different directions, and the more I thought about it, the more determined I was to try this breeding method, as I am a breeder of a race with a small gene pool.

The idea of using two male dogs for a mating and then conducting a DNA test is not new, but then again!

When we talk about breeding dogs with pedigree records the most common variation of this phenomenon is the unplanned and unsupervised mating.

But this phenomenon has definitely been practiced in the wild for many generations, and has probably been more widely prevalent than we can ever prove.

Because how else could animals in the wild have avoided inbreeding? They don't pore over pedigrees to calculate how many times a given male can be used for breeding.

How else can they have ensured the preservation of their species and avoided hereditary diseases without human intervention?

Who here hasn't seen a roaming bitch in heat followed by not only one, but two handsome suitors? And when you see the result of the bitch's adventure you might doubt whether or not the bundles of joy have the same sire, but that kind of thing never gets tested!



A lot of research is being done on the subject of fertility, and not only in regards to breeding dogs, but in regards to many different species. Oddly enough, dog breeders are very careful when new methods and knowledge are presented to them.

Take a look at how the horse breeders are doing it! It's very interesting as they are far ahead and using the latest information on breeding methods.



It's possible for horse breeders to take an egg from a mare for keeping, so that it can be used at a later date, as we also do with humans.

When the right time or stallion comes, the egg can be retrieved and be fertilized in vitro and then inserted into a surrogate mare (just as with humans).

How knows – this might become a possibility for dog breeders in the future as the research is already going on.

Using two male dogs for one breeding should not be viewed as an opportunity to be trendy, there are definitely no economical advantages by using two males and last but not least there is no guarantee that the bitch will carry puppies from both males. In my case it was considerations/problems concerning the gene pool of the Irish Glen Of Imaal terrier that made me decide to try this method of breeding.

The reason as to why I have chosen to write about my experience is that it might be a small help to those who are passionate about their dog breed and wish to contribute to it, like I do.



Why use this method of breeding?

There are many reasons why you can try to use two male dogs.



- Increasing the gene pool of the breed without exploiting the bitches
- A bitch is near the age limit for having puppies (last litter) and you have chosen the male to sire this litter, but suddenly an interesting new male turns up – who are you supposed to choose? Why not just use both of them? Maybe you're lucky and get puppies after both males, and you don't have to be annoyed that you didn't use both of them.
- Being able to sell your puppies! As the

situation is right now many breeds face difficulties with selling puppies. This makes breeders more careful in regards to breeding, which curbs our breeding plans. Why not try using two males and continuing the breeding plans that way?

My case.

I breed Glen of Imaal Terriers, a breed that only counts about 2500-3000 dogs worldwide.

Out of these 2500-3000 dogs we must subtract dogs that are above/under the procreative age. The future of the breed is bleak when it's furthermore is subject to a host of hereditary diseases, that breeders have to relate to and avoid.

The gene pool of the Glen makes it almost impossible to keep to the matador breeding limit of the breed, and the gene pool can't endure shrinking further.

At the beginning of this year, I got the latest numbers from the breed's large database, which show how bad it really is. Far less than 80% of the population is used for breeding.

The biggest factor in this is probably that a lot of breeders choose to use the same male dog, because of his many impressive titles or the fact that he has proven to be fertile. It's a shame that a lot of people don't consider how this harms the breed's health and gene pool.

So I definitely see this breeding method as a major opportunity to increase the gene pool. The biggest challenge is then to get other people onboard and make them understand why you do as you do.

I have talked with many breeders of the breed, and they all reacted similarly to how I did in the beginning; is it ethical? Is it safe in regards to DNA? But all my questions and arguments made them start to consider the idea.

After some time, a couple of them returned to me to hear more about the method and, like me, they could see how this could be a way to improve the breed's gene pool.

But who would dare to be the first one to try the method and still be open and honest about it?

I made the decision to try it and be open about it. On the second try it resulted in a litter of puppies with two different sires, and I hope that other Glen breeders will try it and help strengthen the breed. Here's the story of how I chose to do it ☺



The beginning

After talking to vet Birgitte about how you actually use this method of breeding and which preparations have to be done before the actual mating (arrangements, papers, paternity tests, registrations etc.), I the process of picking out the two males.

I studied a lot of pedigrees and spent many hours talking on the phone and communicating by mail, before I chose the two males and finalized all the arrangements.



Mating arrangements

As you all know, there are many ways of paying for a mating in the Glen world, and as this was a totally different way of mating, I first had to figure out the fairest method of payment for everyone involved.

First of all, there is no guarantee that the litter will have puppies from both males. What if the litter only counted 2-3 puppies? Was I supposed to pay the full mating price to both male dogs?

I made the following agreement with the owners of the male dogs:

Both owners were paid a jump price (paid at the mating) regardless of whether or not their male dog sired any puppies in the litter. After that they got 10% of the sales price of each puppy, which was divided between the two owners (after the DNA tests).

That means that the price of the mating was slightly lower than normally, as the bitch doesn't give birth to more puppies just because two male dogs were used.

We also agreed that if one of the males didn't sire any puppies, I could choose to use the male again without paying a new jump price.

Testing

I always choose to have progesterone reading done on my bitches to find the best day for the mating, which is crucial in this type of breeding.

It is also important to know the sperm quality of both the male dogs, as this plays a large part in whether or not the method is successful.



If you choose to have the males tested at two different clinics you risk getting different test results. Apart from knowing whether or not the males are fertile, the reason why you choose to test sperm quality is to determine how the mating should be carried out in order to give both males the best terms. In my case, male number one turned out to have the lowest sperm count and male number two had the highest. We decided how to conduct the mating on the basis of these results.

Method of breeding

How you choose to actually go about the mating itself depends on several different variables. Will the male and bitch mate on their own? Should you inseminate? And how do you go about the insemination?

I have tried this breeding method once before, where the veterinarian chose to mix the sperm from both males and inseminate the bitch once. It unfortunately resulted in puppies from one of the males but not the other.

This time I tried a different approach. Seeing as both males had had their sperm tested and we knew that there was a difference in quality, we chose to inseminate the bitch with sperm from male number one (lowest sperm quality) in the morning and end with sperm from male number two (highest sperm quality) in the evening. The next day we did it in reverse order.

The reason for this approach was that we wanted to make sure that male number one got a head start before male number two was used.

It is difficult to determine which approach is the best one. It probably depends on the veterinarian's convictions and level of experience. You probably also have to be a little in luck.

The wait

After two days with four inseminations I went back home, and all I could do was wait and see if all the hard work would bear fruit.

I'm lucky in the sense that I can see whether or not my bitches are pregnant very early in the process, so I soon started to sense changes in my bitch's behavior. A tiny bump became noticeable early on. The bitch in this case always has big puppies, so I knew there weren't going to be a lot of puppies.

On the 61st day she finally went into labor and out came four big boys at 400 grams each. It wasn't possible to determine who had which sire yet, but believe me, you can't help but guess – and I was right! 😊

Registering puppies in the Danish Kennel Club



Before using this breeding method, make sure that you know the rules of the country you're planning to register your litter in.

Here's how it works in Denmark with the Danish Kennel Club:

When you're using this breeding method, you can't just register the puppies online. You have to have a final paternity test for all the puppies before you can finish registering the puppies. When the puppies were born I went to the Danish Kennel Club to do a preemptive registration.

Important when doing a preemptive registration with the Danish Kennel Club

You have to have a signed proof of mating for both the male dogs (two litters), filled in with the total amount of puppies, sex, color, names.

DNA and paternity

The puppies were thriving and now I had to make sure that I got blood from both the males to use in a paternity test.

I contacted the owners of the male dogs and we agreed on a date for the blood drawing. After having the blood drawn, it was sent to Merete Fredholm, who was already informed of the litter,



along with a filled out form and a letter containing information on the litter (number and name of the mother).

Now I just had to wait until my puppies grew big enough to be chipped and have the DNA test done.

DNA tests have become easier to perform on puppies. Earlier you had to draw blood from a vein, which was very uncomfortable for the puppies and a very bad experience with veterinarians – I would not recommend it.

Today you can DNA test puppies by pricking their ears a couple of times in order to get the drops of blood needed. They're put on an FTA card to determine paternity.

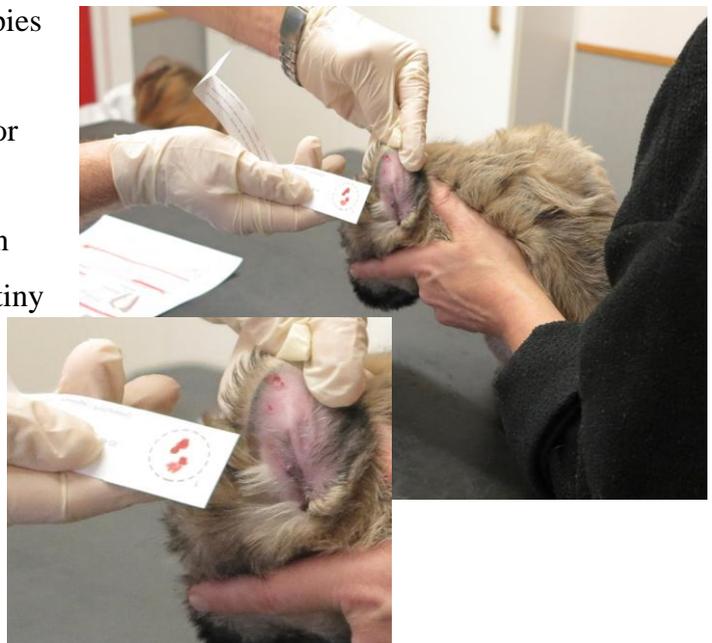
This enables you to determine paternity a lot earlier because it is not as uncomfortable for the puppies than earlier. The paternity can be determined as soon as the veterinarian can chip the puppy.

I had blood drawn from the mother and the puppies at the same time at our veterinarian, Rude Dyreklinik, and it was a very good experience for the small puppies.

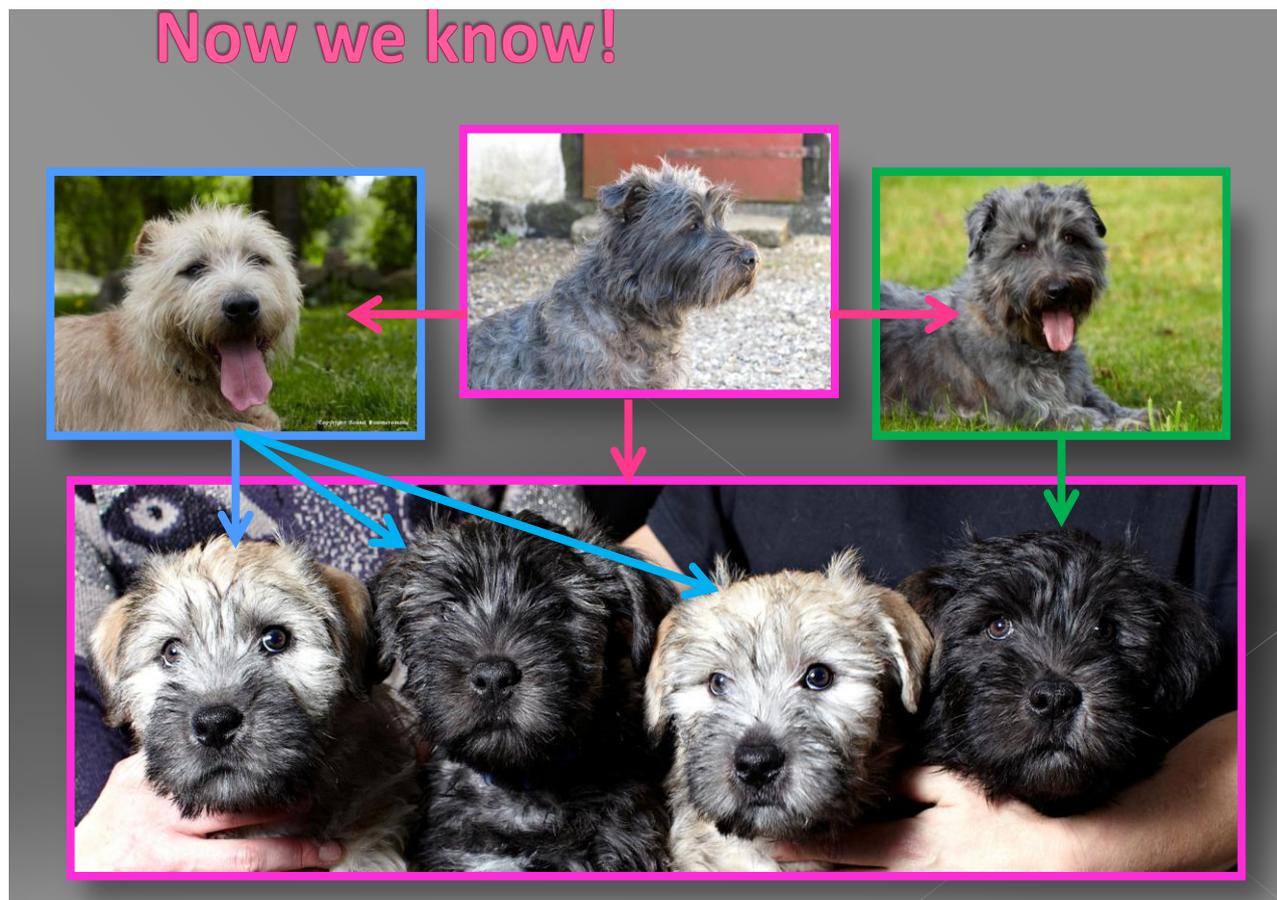
The only thing they seemed to react to was when they had to be chipped, but they took it like the tiny men that they were! They didn't seem to notice having their blood drawn (two small pricks in their ears). Afterwards the tests, certificates and letter were sent.

All I could do was wait!

I had the results in had in less that a week, and hurray! It worked! Now I could finalize the registrations with the Danish Kennel Club. Only a couple of weeks later, I had the pedigrees for the puppies.



And the father is!!



Important! When the puppies have been born

Have the blood drawn from both males with a filled out form. When the puppies are big enough they have to be chipped and have their blood drawn for testing along with their mother.

If you think that this method of breeding might benefit your breed and feel like you want to try it, I've compiled my experience into a bulleted summary

Before the mating:
Selection
Mating fee
Mating agreements
Sperm count
Finding the method of breeding
Who will do the insemination?
Progesterone readings
Making arrangements to get blood drawn for the paternity test

When the puppies have been born:
Preemptive registration at the Danish Kennel Club
Make sure to have the blood from the sires sent
Having the puppies chipped
Drawing blood from puppies and mother
Finalizing registration with the Danish Kennel Club

Evaluation

Now that all the puppies have left home, I can sit back and evaluate the case. Has it been worth it?

I'm looking back at a couple of very exciting years, which have been filled with challenges, excitement and disappointment when I started planning how to use this method of breeding. I have had a lot of questions about how to go about the actual breeding, and have had countless conversations with Birgitte and other veterinarians.

Today I have a very strong vision of how I want to implement this breeding technique in the future. I'm sure that the more work you put into testing both males and bitches, the more likely it is to be a success.

Last but not least – I am sure that this method will benefit my breed.

It definitely won't be the last time I use this method of breeding (the next mating has already been planned), and hopefully I'll be so lucky as to get another litter with two sires.

