

## **Balance between personal experiences, genetic diversity, and scientific priorities in breeding Irish Wolfhound**

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- Vet since 1987, studied at University of Gent (Belgium).
- Breeder 'by accident' of IW, since 1990.
- Since the first IW in practice (which I kept), crazy about them and their character.  
So crazy about them that since one year I'm in association practice to spend more time for and with them.

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## Dilemma 's in live as vet

- one part is a vet and wants more scientific explanations for what is happening in breeding
- Standard is less important if you want to breed the 'most correct IW'
- Health is absolutely first priority

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## As a Breeder

- Health is important
- Of course showground is important, certainly in the beginning, but after some time .....?
- Standard should be the bybel
- 90 till 95 % of the IW puppy's go to people who never show, just have the dog as a pet. Those people want just a dog to care for.

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## Genetic view

- Important to know that some properties are or genetic or congenital.
- Genetic ; it is inscribed in the DNA formula of the dog , it means not always that you can see it, but you have to know that a certain property can be hidden. The dog is in the possibility to give this property to his offsprings
- Congenital : a property that in the most of the cases you can see at birth, but will not be necessary genetic, can be result of mutation, or malformation.

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## GENETIC and CONGENITAL

Are terms that you need to separate from each other

Is not always easy, sometimes you can only know that by breeding

It means also that you need a breeder who ' can see, wants to see '

!!! Genetic not always means congenital ( exp: cardiomyopathie )

!!!! Congenital does not always mean genetic, and property most of the time can be seen at birth.( exp absence of tail in some breeds )

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- GENOTYPE
  - Is the genetic information the dog carries in his DNA
  - Is of course familiar, 50% from father and mother
  - Genetic information can be hidden .
- Phenotype
  - What you see, the result of genotype and environment.
  - Is more subjective information, can be manipulated.

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- **WHAT YOU SEE IS WHAT YOU GET** is certainly not a way of predictable breeding
  - WHAT YOU SEE = PHENOTYPE**
  - WHAT YOU GET = GENOTYPE**

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## Linebreeding versus outcross

- Linebreeding
- Outcross
- Combination of two species with parents out of more or less the same bloodline.
- Combination of two species with none consanguinity

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## Consequence of outcross

- Mix of genetical material, as properties are a result of different genes, it is very difficult to foresee what the result will be.
- As some properties are 'hidden' it is also perfectly possible that the same properties are hidden in both lines and that they 'pop-up' at once

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## BUT .....

- Outcross is needed certainly in a breed with small genetic base, otherwise we lose a lot of genetic information that can be helpful.
- Outcross means a certain 'incertitude', in good and bad way.
- It is also important 'wanting to see' the problems, or good properties in outcrosses, it can reveal hidden properties that can be important for breeding programs !!!!!

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## Example : livershunt

- ALL bloodlines carry the information, but in some bloodlines one rarely or never see the clinical signs (more if diagnosed correctly) , BUT by mating with outcross bloodlines one see coming this disease at once.
- Outcross is a way of gambling with genes, but is very interesting if breeders ' want to see, and want to learn ' from it

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- Personal experience :
- In twelve years of breeding, never saw a livershunt born at my place, because on that moment we did not so many litters, but nearly all linebreeding
- The livershunt puppy's popped-up at once with complete outcross lines, in first place you wouldn't expect it here. Because of the mix of genetical material it seemed that both bloodlines ' matched ' together to give this property !!!

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## After being shocked what do we learn ?

- 1/ That both bloodlines carry the information in one way of the other, so WE HAVE TO TAKE NOTION OF THAT
- 2/ that outbreeding can give us a lot of information about a complete other bloodlines, IT WORKS IN BOTH DIRECTIONS
- 3/ thinking that outcross breeding is a save way of breeding is a fals security

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## Line breeding



- Breeding of two species where there is consanguinity
- Line breeding brings together genetical information from same bloodlines.
- Some of the recessive genetical potential will be revealed.
- Can be used for 'type breeding'

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## Results of line breeding

- Genetical potential becomes more homogen. In good and bad ways
- The breeding is more 'predictable'
- Accentuation of type
- Possibility of dominance in breeding is higher.
- Higher % female in litter

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## Consequences of line breeding

- As genetical potential comes more homogen, we have combinations that will never survive the embryonal fase, as they are not likely to live. Natural selection .
- An excellent knowledge of bloodlines is necessary.
- Only the best results may be put in breeding programs.

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**Offsprings as result of linebreeding should only be used if they are the best options in the litter.**

**How more linebreeding how more exigent one has to be, how more carefull,how more selection needed.**

**This is also not a ' save ' way of breeding, but in one way a more predictable one !**

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# **The Safest Way of Having a Perfect Irish Wolfhound Is Never Breed Yourself**

## **So You Can Criticize Others**

**How More You Breed, How More  
You Know That It Isn't Easy, How  
More You Are Awared That  
Something Can Go Wrong.**

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## **Veterinary IW problems**

- ? What's a problem ?
- ? Can we do something about it, how can we foresee a problem ?
- ? Can we do something to warn others , sharing a problem could maybe ' pre-solve' others.

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## Most common IW problems



- cardiomyopathie
- bone cancer
- Seizures
- Puppy paralysis
- chondrocartilagenous infarct
- Livershunt
- Growing problems, muscoskele problems.

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- Most of these problems have more or less a genetic base.
- In most cases it is still not proven if problems are dominant, recessive, suppressive by other genes,
- Only solutions if we want to know more about it is eventually

### DATABASE

**BUT:** as we have more information the view on specific disease can change, can be adapted.

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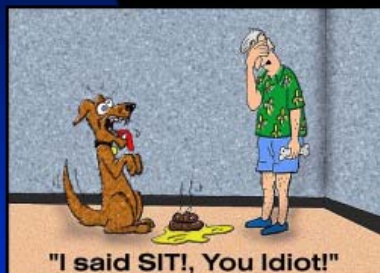
In some cases people just fix on one of the problems they are confronted with,

This can be an extremely dangerous situation

This can lead to situations where some whole bloodlines are excluded from breeding

And so other problems come out and will be installed in the genoom of the new generation.

## Common sense



- Breeding, a total concept
- You never will breed a perfect dog
- We can try to work to a standard but health is 1st priority
- One has to live with misunderstandings

**Genetic diversity is important in a breed like IW, the genetic base is very small, one CANNOT afford to exclude bloodlines**

**We have to use common sense and try to make 'the possibilities' to a minimum**

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**Try to diversify genoom of the population by using different combinations of male and female .**

**Sometimes one has to have the guts to use a ( healthy ) dog out of a 'condamned' litter. Of course use this one when is over 5 years old. This dog may carry also very good things in him/her.**

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**Time has come that one has to think and keep several options in mind**

**? Frozen semen certainly for IW an option as we know the fertility after 5 years of age is not to be expected as good.**

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■ **BREEDING .....**

■ **Is a little bit like GAMBLING.....**



■ **And costs a lot of money .....**  
**( but we seem to like it )**

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## Little word about puppy's and their weight.

- Puppy's weight should not exceed 1/3 of adult weight at 4 months.
- 60% of adult weight at 6 months
- 80% at 12 months.

This to have as less problems as possible in the growing fase

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## Growth is genetic

- You can only have impact in the way of 'not coming to his genetical height'.

If you give balanced food, the genetical capacity of the dog will be reached.

!!!! Some bloodlines do grow faster as others !!!!!!!!!!!!!!!

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Sometimes, even passionate  
by IW, there are still people to  
live with us and support us.



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