

A statement from the Whippet Breed Council regarding the topical 'Merle' issue in Whippets and a statement from our Health Co-ordinator Jo Whitehead explaining the Genetic make up of the 'Merle' colour in Whippets.

Any Breed Club member is encouraged to feed back to their Clubs on this matter.

This topic will be an agenda item for the next Whippet Breed Council meeting on Sunday 29th July 2018, at Sports Connexion, Ryton on Dunsmore, Coventry (11.00am).

Kind regards,

Russell Sykes, Sec. Whippet Breed Council.

Some time ago the Kennel Club consulted with the Whippet Breed Council regarding the Merle colour pattern and the breed standard. At that time there was no indication that this colour could present a problem in pure bred whippets, so the Breed Council elected for the Standard to remain "Any colour or mixture of colours".

Since then, information has come to light that there are Merle whippets now registered in Europe. The Breed Council reviewed this matter again in February this year and, because there are health issues and 'questionable purity' connected with this colour, made a decision that they would now like to change the Breed Standard to exclude the colour Merle.

The Breed Council represent Breed Clubs, which in turn represent their membership. In light of this the Breed Council wish to ensure that those members are fully informed regarding the implications of the introduction of merle into the whippet gene pool.

In her new position as Whippet Breed Health Coordinator, Jo Whitehead has prepared an excellent and educational statement in order to ensure that we are all fully informed. If you would like further clarification, please don't hesitate to contact Jo, Russell or yself:

To understand the Merle gene, can I firstly ask you to familiarise yourself with the introduction to colour genetics, which is included in my Whippet Colour article (Biennial 2015 / 2016)

Genes – a gene is an instruction book which tells an animals' cells how to develop. They control every aspect of development, including pigmentation and colour. A dogs genetic make-up is known as it's genotype. Alleles – alleles come in pairs (one from each parent). Each pair of alleles forms the gene. We write down alleles as letters eg DD. Capital letters represent the dominant gene.

Phenotype – this describes the outward appearance of the animal.

Dominant / - remember that there are two copies (alleles) of each gene.

Recessive Each allele may be different. If this is the case it will be the dominant one that is expressed in the dogs phenotype (how it looks). The recessive allele will effectively lie dormant, but can be passed on to the dogs offspring.

Merle is a dominant gene and is represented by the capital M.

Non merle (any of our 'normal' Whippet colours) is recessive and is represented by a small m. The merle gene is not present in pure bred Whippets and therefore every Whippet will be mm. Some breeds use different names for the merle gene, for example in Dachshunds it is known as dapple and Great Danes have a modified version of merle which is called Harlequin.

Remembering that each puppy takes one allele from each parent, this means that one parent MUST be merle in order to produce merle puppies. It is not possible for the gene to be carried recessively as it is dominant to all our Whippet colours. As the M gene isn't present in Whippets, it is not possible to produce a merle Whippet puppy within our bloodlines.

However, if you were to mate a Whippet to a merle Lurcher or another breed of merle colour, you would be able to produce merle puppies. It is also important to note that there are merle Whippets registered in FCI countries (presumably the gene was introduced from another breed). As we have the KC / FCI agreement, this means that we could mate a UK dog to a FCI merle, produce merle puppies and get them registered. It really is as easy as that to introduce the gene to KC registered Whippets.

A normal merle dog only has one copy of the M gene, so it is actually Mm. There are not any particular health risks associated with Mm dogs. However, very serious issues can often be found in dogs that are MM and carrying two copies of the merle gene. In order to get MM, two 'normal' merles would have to be mated together. An average of 25% of the resulting puppies would be MM. These double merle puppies are at very high risk of eye problems, deafness and skin issues. MM puppies are usually predominantly white and have problems producing sufficient pigmentation. They normally have blue or wall eyes.

Due to the serious health issues associated with MM, merle to merle matings should never be done. Unfortunately, they can sometimes happen inadvertently when one parent has such small patches of merle it goes unnoticed. Or if the merle is hidden by a greying coat or large patches of white. Merle can actually be hidden completely if a particular dog carries a masking gene.

Whilst merles and in particular double merles, often have blue eyes it is important to stress that blue eyes can occur independently of the merle gene. Therefore a Whippet could have blue or odd coloured eyes without any introduction of

the merle gene. There are not believed to be any particular health issues associated purely with blue eyes.

In summary

- We do not have the merle 'M' gene present in pure bred Whippets.
- In order to produce merle puppies, at least one parent must be merle itself.
- Merle cannot be carried recessively / lay 'dormant' for generations.
- Double merle 'MM' puppies are at high risk of serious health problems.
- A dog can have blue / wall eyes without being merle.

In addition there was some confusion regarding eye colour ie. Wall/Blue eyes which are seen occasionally, particularly in pale pigmented or parti-colour whippets. However, this is a completely separate issue and we have clarification regarding this from the Kennel Club's own Geneticist. I quote here;

....."blue, or different coloured eyes (heterochromia), often occur independently from the 'merle' variant or gene. Blue eyes occur due to a lack of pigment (melanin) in the iris and are often observed in breeds with partially or predominantly white coats (also lacking pigment) interspersed with areas of colour (pigment), such as the Border Collie and Dalmatian. The presence of blue eyes, or heterochromia, in these breeds is related to the distribution of melanin producing cells (melanocytes), which also influences the pattern of pigmentation in the coat.

As far as I am aware, there are no serious health consequences of having blue eyes per se. However, it is known that deafness can be a problem in breeds with predominantly white coats and in which blue eyes are more common. There is actually a common underlying mechanism for this as melanocytes are also located in the inner ear and thought to play a vital role in their function, with an absence of melanocytes thought to be a main factor in a particular type of deafness, known as congenital sensorineural deafness (CND).

However, while the issues of white coat, blue eyes and deafness may have a connection via the distribution of melanocytes and the pigment they produce, it is important to stress that not all white dogs have CND. Nevertheless, it would be worth bearing this in mind if an increasing number of predominantly or completely white dogs are being bred, and breeders may wish to undertake BAER testing which determines the presence of uni- or bi-lateral deafness in puppies from 4 weeks old. Litter screening for CND using BAER testing is commonplace in many breeds, including the Border Collie and Dalmatian, and can be undertaken at a number of veterinary centres:

<http://www.britishdalmatianclub.org.uk/health/index.php...>"

The Merle colour and blue/wall eyes will be (separately) on the agenda for decision at the next Breed Council meeting, which is scheduled for 29th July 2018.

It is important that you feedback your opinion to your breed clubs so that they may fairly represent your views at that meeting.

Ann Beckett-Bradshaw (Chairman Whippet Breed Council).