# LABRADOR RETRIEVER KENNEL CLUB



(Affiliated to the KUSA) www.labclub.org.za Tax Exemption (NPO) No: 930015033

MEMORANDUM

P O Box 30639 Kyalami 1684 Gauteng South Africa

31 May 2021

То:	Executive Committee of the Kennel Union of South Africa
From:	The Committee of the Labrador Retriever Kennel Club of South Africa ("LRKC")
Subject:	Proposal to regulate the registration of Labrador Retrievers of non-standard colours
Contact:	Genevieve Alberts, gcullen123@gmail.com; (082) 3745318

# PROPOSAL TO REGULATE THE REGISTRATION OF LABRADOR RETRIEVERS OF NON-STANDARD COLOURS

#### **EXECUTIVE SUMMARY**

Globally, Labrador Retriever ("Labrador") breed clubs are dealing with an increased incidence of dogs purporting to be purebred Labradors of non-standard colours. Unscrupulous breeders are selling alleged purebred Labradors in designer colours at prices substantially higher than Labradors of standard colours would usually fetch, on the irregular basis that these are "rare" purebred dogs. Our concern is that breeding for colour, with little regard for conformation, temperament and health, results in dogs that have a myriad of health and temperament problems and in turn, sullies the gene pool that we are tasked to preserve.

The official Breed Standard of the Labrador states the following with regards colour: "The only correct colours are wholly black, yellow or liver/chocolate. Yellow range(s) from light cream to red fox."

In Labradors, the "designer" colours cropping up are a direct result of the artificial introduction of the dilute ("d") gene into the gene pool, resulting in silver, charcoal and champagne-coloured dogs of questionable origin.

The paper that follows proposes that KUSA regulate the registration of dogs purporting to be Labrador Retrievers, carrying or affected by the Dilute gene. Specifically, the LRKC strongly recommends that KUSA adopt the following policy with regards to these dogs carrying the Dilute gene, either as carrier ("Dd") or affected ("dd") and that this policy be implemented with immediate effect.

# We request that the following wording be included in Appendix E of Schedule 02 "Regulations for the Classification, Registration and Transfer of the Registered Ownership of Dogs (1989):

# Retriever (Labrador) – Imported

An imported Retriever (Labrador) may only be placed on the KUSA Breed Register upon presentation of a clear test result for the dilute colour gene for the dog in question, from a recognised genetic laboratory in the country of origin or South Africa, or by being proven hereditarily clear, of either carrying the Dilute gene ("Dd"), or of being affected by the Dilute gene ("dd"). For the avoidance of doubt, the test result must reflect a result for the D Locus of "DD" for the dog, or for both its parents, to be eligible for Breed Registration.

In order to govern imported semen, we request that the following wording be included in Appendix C of Schedule 02 "Breed Specific Litter Registration Requirements":

#### **Retriever (Labrador) Litters**

No offspring from imported Retriever (Labrador) semen, collected on or after [1 April 2021], may be placed on the KUSA Breed Register, unless a clear test result for the dilute colour gene for the dog in question can be produced, either from a recognised genetic laboratory in the country of origin or South Africa; or, the semen donor can be proven to be hereditarily clear of either carrying the Dilute gene ("Dd"), or of being affected by the Dilute gene ("dd"). For the avoidance of doubt, the importer must furnish the KUSA with proof of a Dilute gene result of "DD" for the semen donor, or for both his parents, in order for the litters sired by the donor to be eligible for Breed Registration.

This paper will cover a brief history of the Labrador, how the Dilute gene likely came about, the health implications thereof and registration practices adopted by other countries to deal with the issue. These "affected" dogs are hereinafter referred to as "silver dogs" or "dilutes".

#### 1. BACKGROUND

As a specialist Breed club, we are dedicated to the health and welfare of the Labrador breed while preserving the original breed function – that of a "working retriever." A purebred dog offers to his owner the likelihood that he will be a specific size, shape, colour and temperament. The predictability of a breed comes from selection for traits that are desirable and away from traits that are undesirable. These characteristics should be encapsulated in a wide, healthy gene pool and any attempts to either narrow the gene pool or dilute the gene pool for the purpose of breeding a "designer" colour or other "designer" characteristic is not in keeping with our Principles.

The LRKC subscribes to the view that the Breed Standard is a universally accepted description of what a Labrador is and breeding dogs that do not conform to this Standard is a move away from preserving the Breed and towards creating a new breed. When it comes to colour, we subscribe to the Standard which states that the only recognised colours for Labradors are black, yellow and chocolate – and chocolate is brown or liver. Labradors of other colours do not conform to the Standard Description of the Labrador Retriever Breed. We do not want to see 'silver labs', 'charcoal labs', 'black and white labs', 'merle labs', 'roan labs', 'blue labs' etc and the Club does not approve of or condone the sale of such dogs as Labradors. Similarly, the Standard prescribes acceptable eye colour as brown or hazel and certainly not blue, grey or amber, as occurs in dogs affected with the Dilute gene.

The colour description in our Breed Standard is identical to that of the United Kingdom, Australia, New Zealand and FCI-affiliated Countries. The USA Standard has an addition to the above that states "any other coat colour is a disqualification". The reasons for this addition are outlined below.

#### 2. HISTORY OF THE LABRADOR RETRIEVER AND THE ADVENT OF THE DILUTE COLOUR

The Labrador Retriever is descended from the St. John's dog, not a breed, but a landrace from Newfoundland, Canada. A number of St. John's dogs were imported by sportsmen into Great Britain where the lines remained basically pure in the breeding kennels under the dedication and care of the Earl of Malmesbury and the Duke of Buccleuch. The St. John's dog was the progenitor for all the modern retrieving breeds developed in Great Britain at that time, most notably the Labrador Retriever, the Golden Retriever, and the Flat Coated Retriever (colours produced in these breeds were limited to black, liver, and yellow). The St. John's dog was not a dilute dog, ie it did not carry the Dilute gene ("d"), and as evidenced in meticulous record keeping, breeding and whelping logs, as well as descriptions of all colours and markings, there was never any mention of dilutes appearing in any of the Retriever breeds based on the St. John's

dog. The original Newfoundland breed also played a role in the development of the Labrador and it too did not carry the Dilute gene.

The Labrador was officially recognized and registered where it was first developed, the United Kingdom, in 1903. The predominant colour was black, but chocolates and yellows have always been legitimately in the breed. Subsequently, the Labrador was imported into North America and gained recognition and registration by the American Kennel Club ("AKC") in 1917. Labradors have since grown in popularity from 3 dogs registered with the AKC in 1926, 23 dogs in 1928 to 40 registered in 1931. By 1946 there was a grand total of 1,736 Labradors registered with the AKC across the entire USA. During this time period, these dogs were either imported Labradors from Great Britain or American bred dogs descended from imported British stock.

Going back to 1928 when there were only 23 registered Labradors in the USA, with less than two dozen dogs in an entire breeding population, this population bottleneck would theoretically have driven a breeding population toward genetic uniformity, and any recessive traits were bound to be expressed within such a small population. Yet during this time, there was never any record of a dilute being produced in the United States and the colours remained black, yellow and chocolate; nor is there any record of a dilute Labrador being imported into the USA. In 1928 there were 1,326 UK Kennel Club registered Labradors and not one was a dilute.

It was not until 1985 that the AKC registered the first "silver Labrador", allegedly to chocolate Labrador parents. Officials representing the AKC inspected the litter of silver puppies and were shown two AKC-registered chocolate Labrador parents and they thus concluded that the pups were Labradors. The officials instructed the breeder to register them by their base colour – chocolate. As explained in the genetics paragraph below, the expression of the Dilute gene in chocolate Labradors would be silver, in black Labradors it would be charcoal and in yellows it would be champagne.

Considered "rare", this registration philosophy triggered an incestuous practice of in-breeding siblings, parents and offspring, etc. by a single kennel in the USA to "establish" dilutes. The dilute lines can all be traced back through pedigree information to two particular dogs, both sourced from Kellog Kennel during the latter part of the 20th century.

The overwhelming consensus among breed experts from legitimate Labrador clubs in the USA is that dilutes appeared out of a cross breeding with Weimaraners, a breed in which the Dilute gene naturally occurs. The Kellog Kennel is also (in)famous for pedalling so-called pointing Labradors. The silver colour does not exist in any other retriever breeds, and it doesn't occur in any of the other descendants of the St. John's water dog. The cross-breeding theory is further supported by the fact that these dogs typically have either amber or blue/grey eye colour – in line with the Weimaraner breed standard and often resemble the morphology of a Weimaraner. It is the view of most Labrador Retriever breed clubs and their parent bodies globally that Labradors carrying the Dilute gene are not purebred Labradors.

The AKC's approach to registration is to automatically register dogs whose parents are AKC registered and to this day the AKC registers dilutes as purebred Labradors according to their base colours – black, yellow or chocolate. However, bowing to pressure, the AKC has added a sentence to the breed standard that "any other coat colour is a disqualification".

By 1985, some 15,156 Labradors were registered with the UK Kennel Club and not one was dilute coloured. In fact, no silver (or other designer colours) had appeared in Labradors anywhere else in the world.

It was not until 2006 that the first silver was born in Great Britain, from dilute parents imported from the United States. There was no silver born in Australia until the same time, also from dilute parents imported from the United States. There have been no dilutes of any kind born anywhere else in the world until the first decade of this century and that was, in every instance, to dilute parents imported from the United States.

The AKC's practice of registering dilute Labradors as either black, yellow or chocolate means that the Dilute gene is not tracked and can therefore hide in dogs that don't express the trait ("Dd" instead of "dd"). A pedigree will therefore not highlight the silver dogs therein. Ethical breeders in the USA have had to resort to actively testing their stock for

dilute carriers and clubs try to maintain a register of dilute carriers in order to help their members protect their lines from dilution.

It is our opinion that the actions of the AKC legitimised the breeding of "designer" colours with little concern for conformation, preservation of the breed or health considerations. The LRKC's concern is that an importer of an AKC registered Labrador could find themselves importing dogs to South Africa carrying the Dilute gene without realising it.

# 3. COLOUR GENETICS

There are many genes involved in canine coat colour. The generally recognised loci which control colour in dogs are called 'A'(agouti), 'B'(brown), 'C'(albino series), 'D'(blue dilution), 'E' (extension), 'G' (graying), 'M'(merle), 'R'(roaning), 'S' (white spotting) and 'T'(ticking.)

In the Labrador the loci that dictate colour are the 'B'(the brown/black series) and 'E'(the extension series) loci. Genes at other loci like 'C' for albino, 'D' for blue dilution, 'T' for ticking and 'M' for merle are "turned off". Other loci like the 'A'(agouti) always have present the allele for solid coat colour and this is never changed within the breed – ie every Labrador carries the same allele (the gene with that particular expression).

There are 9 possible genotypes or combinations of coat colour gene pairings which result in the following coat colours:

- eeBB, eeBb, eebb = A yellow lab (If an 'ee' pairing is present, the lab will always be yellow regardless of the 'B' or 'b' gene combination.)
- EEBB, EeBB, EEBb, EeBb = A black lab (With at least one 'E' and 'B' present, the lab will always be black regardless of the other 2 allele in the genes.)
- EEbb, Eebb = A chocolate lab (With at least one 'E' present, and a 'bb' pairing the lab will always be chocolate.)

Mismarks can and do very occasionally occur in Labradors and tan points and brindling also crop up from time to time. These mutations have been diligently recorded throughout Labrador history and although they occasionally crop up in the breed, these dogs remain purebred Labradors and can be registered as such throughout the world. Dogs bearing any of these mutations would be disqualified in a show ring for a conformational fault. We have no intention of trying to further regulate the registration of dogs affected with these occasional mismarks or gene mutations.

#### 3.1 Where does the silver come from?

The gene responsible for the silver colour is the Dilute gene "D". The "D" gene present in Labradors would be a pairing of two "DD" allele, which in its dominant form ensures that the colour expression is solid and not diluted. The recessive version – a small "d" – if present, will result in a dilute colour if two of these are present, as a "dd" gene.

To illustrate, there are 3 possible dilute combinations:

- DD pairing (clear for dilution) = Solid colour, no Dilute gene present. (And no matter the subsequent breeding, a dilute will not be found in the litter.)
- Dd pairing (dilute carrier) = Solid colour, dilute factored, one dominant "D" present and one recessive dilute "d" allele present. (And if 2 non-dilute "Dd" carrying dogs are paired, they could have some "dd" pairings in their litter and hence produce dilute puppies.)
- dd pairing (dilute affected) = A dilute coloured dog, 2 dilute "d" genes present. (And if paired with a DD Lab, no dilutes will be in the litter. If mated with a "Dd" carrier, dilute puppies could appear in the litter.)

As mentioned earlier, Labrador breeders throughout history have painstakingly recorded their breeding history and openly noted colours produced and even mismarks when they did occur. However, there is no mention, anywhere in the world, of any silver (or other dilute coloured) Labradors occurring. It is the universally accepted view, among Labrador Retriever societies and clubs throughout the world that Labradors can only have the DD pairing, never a

dilute factored "Dd" that can pass on the Dilute gene, and certainly never be an actual dilute colour carrying the "dd" pairing.

An examination of various scientific texts by renowned geneticists on colour inheritance in dogs proves this point<sup>iiiii</sup>. These authors researched colour inheritance in Labradors in great depth, even considering the genetics behind mismarks occasionally found in the Breed, and all confirm that the mutation at the D Locus is not found in the Labrador.

Clearly, the Dilute gene was artificially introduced long after the breed register was closed to unregistered Labradors.

# 3.2 Weimaraner Cross Breeding?

Weimaraners are a breed that is based on the "dd" dilution and all Weimaraners have this gene combination. A typical Weimaraner coat is a mousey grey and this is because their "D" and "B" genes are both present in the homozygous recessive forms ("dd" and "bb"). Most Weimaraners are therefore a chocolate colour that is diluted to a silver grey. They can carry the "B" gene in the dominant form so therefore a darker blue Weimaraner can occur in litters when they are "dd" and "BB".

Unfortunately, parentage testing was not conducted on the early dilutes. In addition, dilute breeding has been consistently perpetuated since the 1980's and the gene pool widened over time with the inclusion of standard-coloured, purebred Labradors. So, despite recent advances in modern genetic testing, it cannot be proven conclusively that the original appearance of the "dd" gene is due to cross breeding with Weimaraners. However, because it has been recorded that it originated from one kennel it is most likely an accidental or deliberate mating with another breed. Irrespective, there is sufficient scientific evidence that the "dd" gene does not occur naturally in the Labrador.

The Labrador is a retrieving breed with a natural ability to retrieve and preserving this status as a working retriever is important. The Weimaraner is not a retriever although the ability can be taught.

# 3.3 Alleged Spontaneous Mutation of the "D" Gene

Silver breeders in the USA argue that the dilutes are purebred Labradors and the colour is a consequence of spontaneous mutation. This theory is refuted by all Labrador breed clubs globally and by most kennel unions for the following reasons:

- All silver Labradors can be traced back to one kennel in the USA, called Kellog Kennel.
- there is good evidence in scientific literature (see end note) indicating that the Labrador has never been identified as carrying the Dilute gene "dd".
- Mutations do not usually reproduce in a typical pattern. However, the silver expression here follows the exact same pattern as any other ("dd") dilution in other breeds.
- The silver colour did not appear anywhere else in the world before the advent of dilute puppies from Kellog kennels. The recent appearance of silver Labradors in other countries are, in all instances, the result of importing silver Labradors from the USA for breeding purposes to appeal to designer breed demand.

# 4. HEALTH AND TEMPERAMENT IMPLICATIONS

The incestuous breeding practices to cement the silver colour also meant "doubling up" on undesirable genes and there is much anecdotal evidence that dilutes suffer from some Labrador-associated health concerns to a much greater degree than the purebred Labrador population.

Perhaps even more concerning is that the dilutes specifically suffer from colour dilution alopecia, a painful, chronic condition that causes hair loss and skin lesions. Colour dilution alopecia is much more common in dogs bred for a diluted coat colour – hence its name.



When members of the public choose a Labrador as a pet, they expect their pet to have the famous Labrador temperament. Temperament is a hallmark of the breed and the Labrador is considered highly suitable as a family pet. The Weimaraner has a very different temperament to a Labrador. Combining the two to create a "silver Labrador" misleads the public into assuming they are also getting the Labrador temperament when they very well might not be. The LRKC believes very strongly that the typical Labrador temperament should be preserved and protected.

Photo (by Mary Frances Clark): a silver "Labrador" with severe colour dilution alopecia

#### 5. REGISTRATION PRACTICES IN VARIOUS COUNTRIES

#### 5.1 United States

The current practice with regards registering dilute Labradors in the USA has been spelt out above. The AKC made a statement in June 2017 (Brandi Hunter, AKC Vice President) formally stating that a) there are three acceptable colours of Labrador Retrievers; b) that silver is not an acceptable colour of Labrador Retriever and is a disqualifying fault; and c) it cannot conclusively be proven that silver Labradors are not purebred dogs or are crossed with Weimaraners. The AKC did concede that the Labrador Retriever breed does NOT (traditionally) carry the Dilute gene "dd" that appears universally in the Weimaraner and is responsible for silver colour.

The Labrador Retriever Club ("LRC"), the parent body for Labrador societies in the USA, does not view silver dogs as appropriate breeding stock and believes that they should not be bred. They may compete in AKC events but are disqualified from the conformation show ring. The LRC is currently building a database of known silver dogs and dogs carrying the Dilute gene. It is their intention to lobby the AKC, using the information they have collected, to lobby the AKC to change its current practice of registering dilutes by their base colours of black, yellow and chocolate. The LRC is determined to eventually outlaw the practice of registering dilutes on the main register or push for them to be registered as a separate breed altogether.

#### 5.2 United Kingdom

In the absence of a ruling to the contrary, AKC-registered silver dogs imported into the UK were registered by the Kennel Club ("KC") as purebred Labradors, but with the colour endorsed "Colour Not Recognised". Puppies born to KC registered dilutes are also registered as purebred Labradors, carrying the same colour endorsement. It is an offence to register a dilute Labrador as one of the standard colours.

The Breed Council representing all Labrador Clubs in the UK has actively campaigned to have this registration practice changed in favour of stricter registration requirements but, thus far, to no avail. The KC's argument is that they want to encourage registration of dilutes so that they can track the population.

The Breed Council's view is that this practice-

• Lends credibility to silver breeders.

- Legitimises the practice of passing off silver dogs as purebred Labradors and charging extortionate prices for "rare" purebreds.
- Ignores the importance of conformation, temperament, health and preservation of the Breed.

The Breed Council believes there are other ways to track the population of dilutes in the UK and indeed, the Breed Council maintains an unofficial database of known dilutes (local and abroad) and this information is actively shared between the USA and the UK. Purebred Labrador breeders are now faced with the same challenge of having to actively test all breeding stock for the Dilute gene in order to preserve their lines.

We understand that the Breed Council is now making some headway with the KC by arguing the concerning health challenges that dilutes experience.

#### 5.3 Germany

Germany faced a similar influx of silver Labradors from the USA, however, Germany has handled the situation far more decisively than the UK. The *Verband Für Das Deutsche Hundewesen* ("VDH") operates as a federation or umbrella body representing its member clubs. Its regulations allow the recognised specialist breed club to adopt additional regulations that augment the umbrella regulations for the protection and betterment of that breed. Specifically, Section 9, which deals with supplementary provisions of the registration regulations, states that pairings of colour variants may be prohibited by the breed clubs if there is an increased risk of hereditary diseases in the offspring or these matings are excluded by provisions of the FCI.

The Labrador Club of Germany has adopted specific colour-related clauses in its Breeding Regulations (v. 10.06. 2018) that form part of its Articles of Association. A puppy may only be registered if it conforms to the standard colours as listed in the FCI Labrador Retriever Breed Standard, ie black, yellow or liver/chocolate. The regulations also specifically prohibit the registration of dogs imported from USA or Canada unless it is proven they do not carry the Dilute gene.

#### 5.4 Netherlands

The *Raad van Beheer, Houden van Honden* (Dutch Kennel Club) published the following information on its website with respect to unrecognised colours (translated): "BREEDING WITH UNRECOGNIZED COLOURS - In a number of breeds, the breed standard contains some colours that are referred to as 'disqualifying'. These are 'unrecognized colours'. In some breeds it is suspected that breeding with 'unrecognized colours' can lead to additional health risks. There may also be a suspicion of varietal impurity, making the use of that colour undesirable. The *Raad van Beheer* therefore gives breed clubs the opportunity to conclude a covenant that prohibits breeding with non-recognized colours. As a breeder, if you want to receive pedigrees for your puppies, you must adhere to this covenant. You cannot use dogs with 'unrecognized colours' for your breeding. This is important because the *Raad van Beheer* has agreed not to issue pedigrees when breeding with an 'unrecognized colour'. For more information, please contact the breed club(s) of the breed concerned." The statement then specifically mentions the "Labrador Retriever – silver".

#### 5.5 France

The Retriever Club of France requires every Labrador aged 15 months or over to be examined by a registered Breed Judge before its birth certificate can be transformed into a pedigree. This would not be possible if the dog is dilute coloured. If a dilute slipped through somehow, its offspring would also fail at this hurdle.

#### 5.6 Switzerland

The Swiss have a similar system to France, involving a conformation examination. The Swiss do not entertain the Dilute gene and therefore any silver dog presented would fail and not be issued with a registered pedigree.

#### 5.7 New Zealand

The New Zealand Kennel Club Registration Regulations (1 January 2021) clause 10.7 "Special Conditions for Registration in Certain Breeds" deals with Silver Labradors and states that "Silver Labradors or Labradors showing marked variations from those colours allowable in the Breed Standard (including those Registered in any country of the world) will not be registered in part one (main register) in the register. Clause 10.13 deals with Labradors in general and states in clause 10.13.5 that the Sire or Dam of every litter must test Dilute (D) Locus D, "DD" - not carrying Dilute gene by DNA testing and results (must be) supplied to NZKC."

The implications of these two clauses are that Labradors of non-standard colours cannot be registered on the Full Register of purebred dogs of breeds recognised by New Zealand Kennel Club, even if registered as such in other countries. Labradors of non-standard colours can be registered in the Restricted Register where their registration is endorsed "Not to be bred from", "Not to be shown" and "Not eligible for an Export Pedigree". In addition, Labrador litters cannot be registered in the Full Register OR the Restricted Register if both parents carry the Dilute ("Dd") gene. They can however be registered in the Limited Register and be eligible to compete in obedience, agility and working trials.

#### 5.8 Australia

The Australian National Kennel Council ("ANKC") Regulations Part 6 (Register and Registration) restricts registration on the Main Register to dogs that conform to the standard colours of that breed. Dogs that are not a standard colour are relegated to the Associate, Sporting or Limited Registers. A Member Body maintains the right to inspect any litter to ensure that the puppies are being registered as the correct colour(s) and features in accordance with the Breed Standard and consequently on the correct register.

This rule applies to litter registration but also to imported dogs, even if they are registered on main registers elsewhere. Furthermore, clauses 3.12 and 3.13 of Part 6 state as follows: Where an Imported Dog has been reregistered and it is brought to the attention of the Member Body that the Colour and/or Coat may not comply with the ANKC Ltd Breed Standard, all transactions are to be suspended on the dog until the dog has been inspected by three [3] Licensed Judges with at least 5 years' experience as a Group Judge for the respective Group. (Added EAP 07/11); 3.13 The three Judges to ascertain if the dog complies with the ANKC Ltd Breed Standard especially the "Coat" and "Colour" descriptions. If their combined opinions are that the dog does not comply with those descriptions, then the dog is to be transferred to the Limited Register and "Marked not eligible to be moved to the Main Register".

#### 5.9 Scandinavia

Every dog imported for registration with the *Norsk Kennel Club* (Norwegian Kennel Club) ("NKK") must have an export pedigree from their respective Kennel Club. If the dog in question is on a limited registry they cannot be bred from or get an export pedigree, and hence they cannot be registered. If by chance a silver were to be registered, having a proper export pedigree, the Norwegian breed council would follow all registered litters (they have an open database) and can apply to the NKK for a breeding ban for the dog in question, the grounds being that ethical rules for breeding set by the NKK are being violated. Our colleagues at the Norwegian Retriever Club advise that to date, this has never been needed and they do not have a "silver problem" yet. The Norwegian Retriever Club is working to establish more secure ways of stopping unwanted registrations in the future.

In addition, silver puppies cannot be registered with the NKK and there isn't an option for registration with a non-recognised colour endorsement.

The same rules apply in all the Nordic countries: No silvers can be registered in Norway, Denmark, Sweden or Finland.

#### 6. CONCLUSION AND RECOMMENDATION

South Africa is in the fortunate position that, to the best of our knowledge, we do not have dilutes in the Country yet, whether registered here or registered on recognised registries abroad. Therefore, we do not have a legacy issue to deal with as has happened in the UK and USA. We do not support the approach taken in the USA and the UK but accept that those registering bodies are faced with a legacy of imperfect past practices that make changes going forward more difficult.

We believe that registering dilute-coloured dogs as purebred Labradors, even with a non-standard colour endorsement, will lend credibility to silver breeders and encourage the practice of silver breeding whilst claiming "KUSA registered" status, and this in turn will stimulate demand.

Unlike USA and UK, our purebred gene pool is relatively small, making preservation thereof arguably more challenging. We would argue that South Africa cannot afford for our valuable purebred Labrador gene pool to be diluted by the introduction of non-standard colours. We are convinced that the colour silver will never be accepted as a standard colour on the Breed Standard anywhere in the world so registering silver dogs as purebred Labradors is an exercise in futility.

We believe that it is only a matter of time before the KUSA is faced with the ethical predicament of registering a dilute as a Labrador. Therefore, the LRKC has taken the opportunity to present this paper on the subject, to arm the KUSA with the facts and with the registration examples practiced elsewhere.

# In closing we recommend that the following wording be included in Appendix E of Schedule 02 "Regulations for the Classification, Registration and Transfer of the Registered Ownership of Dogs (1989):

#### Retriever (Labrador) – Imported

An imported Retriever (Labrador) may only be placed on the KUSA Breed Register upon presentation of a clear test result for the dilute colour gene for the dog in question, from a recognised genetic laboratory in the country of origin or South Africa, or by being proven hereditarily clear, of either carrying the Dilute gene ("Dd"), or of being affected by the Dilute gene ("dd"). For the avoidance of doubt, the test result must reflect a result for the D Locus of "DD" for the dog, or for both its parents, to be eligible for Breed Registration.

# In order to govern imported semen, we request that the following wording be included in Appendix C of Schedule 02 "Breed Specific Litter Registration Requirements":

# **Retriever (Labrador) Litters**

No offspring from imported Retriever (Labrador) semen, collected on or after [1 April 2021], may be placed on the KUSA Breed Register, unless a clear test result for the dilute colour gene for the dog in question can be produced, either from a recognised genetic laboratory in the country of origin or South Africa; or, the semen donor can be proven to be hereditarily clear of either carrying the Dilute gene ("Dd"), or of being affected by the Dilute gene ("dd"). For the avoidance of doubt, the importer must furnish the KUSA with proof of a Dilute gene result of "DD" for the semen donor, or for both his parents, in order for the litters sired by the donor to be eligible for Breed Registration.

Should further discussions be needed or if there are any questions, we would welcome follow-up enquiries. Thank you.

<sup>&</sup>lt;sup>i</sup> Templeton, J.W., Stewart, A.P. and Fletcher, W.S. *The Inheritance of Coat Colors in the Labrador Retriever*. Journal of Heredity, Volume 68, Issue 2 (1977)

<sup>&</sup>quot;Little, Clarence C. The Inheritance of Coat Color in Dogs. Howell Book House. (1957)

<sup>&</sup>lt;sup>iii</sup> Willis. Malcolm B. *Genetics of the Dog.* Howell Book House. (1989)