



# Koolie Club of Australia

## Koolie Pedigree Assurance Program

In association with ASAP Laboratories



The KPAP has been designed to assist the Australian Koolie breed to not only survive into the future but to maintain a healthy gene pool and evolve an even stronger healthier population. DNA testing now allows us to not only identify individuals, but to test for many genetic diseases and to assess the purity of our dogs. ASAP Laboratories kindly accepted the Koolie breed as a research and development breed in their program and have agreed to support our program with special pricing packages so that members can have their dogs tested and the results reflected in the registration process of the club.

**DNA profile testing** can irrefutably identify each dog. This identification can be used to prove parentage of any offspring and offers the opportunity to "prove by parentage" that some diseases cannot be carried by the offspring. It ensures accuracy of pedigrees and gives a form of protection to breeders and puppy buyers from incompetence or fraud. It allows multiple sire litters to have offspring assigned to the correct sire.

**DNA health testing** currently includes 32 different tests, with more as they become available. Koolies are historically an extremely healthy breed, some of these tests are for complaints found in only one or two other breeds but it will give us the opportunity to be aware of any potential problems well before they become ingrained in the breed. Several of the tests will be very pertinent though and will make our breeding decisions much more informed. Results are shown as Affected, Carrier or Non-Affected, the good news is that carrier dogs can still be bred to a non-affected with the resultant offspring tested again to select pups not affected to breed on from. This means Koolies that are great examples of the breed in every other way are not lost from your breeding program.

**The Koolie Breed Purity** test will tell us what is the breed makeup of each dog. It has been accepted that at times other "good working dogs" were used for breeding. As it is the club's intention to continue to breed for working ability the purity test allows those good workers to be integrated into the gene pool through our registration program. As a non-recognized breed, our recorded history is limited to the life of the club. Our hope is to continue to bring good working Koolies into the register. This test will give us knowledge of the purity of not only new entrants to the register but our current breeding stock. The Koolie gene test was formulated using 40 koolies from 20 different lines from 15 different breeders to give a good cross section of the current families of Koolies. ASAP Laboratories have worked in conjunction with scientists from the MARS Veterinary to develop their breed ID tests. Mars Wisdom Professional Breed Detection Test covers over 225 breeds, is the only test that is peer reviewed and scientifically validated. It uses 323 SNPs (markers) to identify breeds. No other test tells you how many, what they are and what science.

The Koolie Club of Australia is pleased to be able to offer this program to its members and encourage in particular those who plan to breed their Koolie, to do it fully informed with all the options available. Non members are invited to join the club for our modest membership fee of \$15/single per year to also enjoy the benefits of this program. Our registration system will be revamped to reflect the results of testing shortly.

### Current Health Tests:

*Progressive Retinal Atrophy* (Progressive sight loss) Clear by parentage only.  
*Neuronal Ceroid Lipofuscinosis* – Border Collie (a rare but serious disease of show Border Collies of severe neurological impairment and early death)  
*Hereditary Cataract* (eye disease)  
*L2 Hydroxyglutaric Aciduria* (metabolic disorder resulting in behavioural changes and dementia like symptoms)  
*Von Willebrands Type I*  
*Von Willebrands Type II* (inherited bleeding disorder)  
*Progressive Retinal Atrophy – red1* (bilateral degeneration of the retina causing progressive vision loss culminating in blindness)  
*Canine Leukocyte Adhesion Deficiency* (Immune deficiency in Irish Setters)  
*Congenital Stationary Night Blindness* (Eye disease)  
*Congenital Hypothyroidism* (Hormonal problems)  
*Cerebella Ataxia—Bull Dogs* (variety of different problems with coordination and balance)  
*Cystinuria- Newfoundland* (Kidney stones)  
*Exercise Induced Collapse* (signs of muscle weakness, incoordination and life threatening collapse after strenuous exercise)  
*Myotubular Myopathy X linked* (generalized weakness and muscle atrophy)  
*Natural Bob Tail*  
*Neuronal Ceroid Lipofuscinosis—Dacshund* (neurological disorder)  
*Primary Lens Luxation* (the lens is partially or fully dislocated from the threads that hold it in position within the eye)  
*Neuronal Ceroid Lipofuscinosis – English Setter* (Neurological disorder)  
*Myotonia Congenita* (the delay of skeletal muscle relaxation following the cessation of a voluntary activity)  
*Coat Colour E Locus* (absence or presence of the mutation typically responsible for yellow, lemon, red, cream, apricot and some white colour).  
*Long Hair Gene*  
*Mucopolysaccharidosis* (affected puppies remain generally healthy for 4-6 months and then show stunted growth, corneal clouding and progressive degenerative non-inflammatory joint disease).  
*Glycogen Storage Disease* (deficiency in glucose-metabolizing enzymes in the body)  
*Gangliosidosis* (neurodegenerative disorders caused by excessive accumulation of the ganglioside)  
*Globoid Cell Leukodystrophy* (severe neurological symptoms including seizures, hypotonia, blindness and death usually before 2 years of age)  
*Pyruvate Dehydrogenase Phosphatase Deficiency* (profound exercise intolerance caused by a deficit in phosphatase)  
*Haemophilia B* (fails to activate the coagulation process and experience uncontrollable bleeding problems)  
*Autosomal Recessive Nephropathy* (hereditary renal disease in Cocker Spaniels)  
*Degenerative Myelopathy* (a progressive disease of the spinal chord in older dogs)  
*Neonatal Encephalopathy* (developmental brain disease in Standard Poodles)  
*Ivermectin Sensitivity* (sensitivity to a broad class of compounds including Ivermectin due to a basic defect in the blood-brain barrier. Prevalent in collie related breeds)