Belgian Shepherd Dog Club of NSW

BREED HEALTH PLAN

Adopted at Special General Meeting via phone link 06/07/2022 unanimously

POSITION STATEMENT

The Belgian Shepherd Dog Club of New South Wales (BSDCNSW) recognises that whilst DNA testing and current health screening schemes will assist in keeping the Belgian Shepherd Dog (BSD) varieties (Groenendael, Laekenois, Malinois, and Tervueren) healthy, and will reduce the number of inherited disorders in the breed. Sound breeding practices also involve genomic selection, and careful study and utilisation of pedigree information to maintain genetic diversity within the BSD.

The BSDCNSW recommends that all BSD are tested according to the minimum standards of overseas canine clubs, that is for hip, elbow and eye disease, full breed DNA profile, and any other available tests for any known health issue in the breed as testing becomes available. The BSDCNSW also strongly encourages breeders of the BSD to have their dog undergo regular dentition examination.

The BSDCNSW actively undertakes actions to support breeders in these endeavours, and to inform the general community about these practices.

1.0 Introduction

Issues about inherited disorders and poor health in some pedigree dogs has increased in recent years as the full extent and prevalence of inherited disorders has become progressively understood. Breeding strategies incorporating breeding schemes and DNA testing have been shown to be successful in significantly reducing the prevalence of an inherited disorder and improving the overall health of certain breeds (Farrell et al., 2015). Breeders are now able to examine and test their dogs for known inherited diseases before the dogs are bred from. This allows breeders to determine the chance that a dog may pass a disease-causing gene onto its offspring, giving them the information required to avoid breeding affected puppies. It also allows breeders to adapt their breeding programs and reduce the risk of the diseases appearing in future generations. Although such testing will not exclude all possible inherited and acquired diseases, it is currently the best available option to increase the chances of producing healthy dogs.

The BSDCNSW BSD Breed Health Plan was created following the release of the national BSD Health Survey 'Future Directions: The Current Health Status of the Belgian Shepherd Dog within Australia'. In 2019 a grant of $1000.00 was awarded by the Belgian Shepherd Dog Club of Queensland to enable the 'Future Directions' survey to be undertaken. Data was submitted by breeders and owners of Australian BSD into a web-based survey. 520 BSD were individually entered, and of these, 46% were male, and 54% were female. Ages ranged between 4 weeks to 17 years. There were 27.5% of BSD's reported as having been used for breeding purposes, resulting in 185 litters of pups, with an average of six live births per litter. At the time of the survey, 62% of the BSD's entered had been neutered. The vast majority of BSD's were registered with the Australian National Kennel Club (almost 76%), with the remainder either unregistered or registered on an alternate register. The Survey reported between 2000 and 2019, 5263 BSD's were registered with the ANKC, comprised of 1847 Groenendaels, 1756 Malinois, 1471 Tervuerens, and 189 Laekenois.

2.0 History of the Breed

In Belgium, at the end of the 1800s, there were a great many herding dogs, whose type was varied and whose coats were extremely dissimilar. In order to rationalise this state of affairs, some enthusiastic dog fanciers formed a group and sought guidance from Professor Reul of the Cureghem Veterinary Medical School, whom one must consider to be the pioneer and founder of the breed. The breed was officially born between 1891 and 1897. On September 29th, 1891, the Belgian Shepherd Dog Club (Club du Chien de Berger Belge) was founded in Brussels and in the same year on November 15th, in Cureghem, Professor Reul organised a gathering of 117 dogs, which allowed him to survey and choose the best specimens.

By April 3rd, 1892, a first detailed breed standard had been drawn up by the Club du Chien de Berger Belge. In 1901 that the first Belgian Shepherds were registered with the Royal Saint-Hubert Society Stud Book. During the following years, Belgian Shepherd enthusiasts set to work to unify the type and correct faults. By 1910 the type and temperament of the Belgian Shepherd had been established.

The type of sheep herding work that the BSD historically did was tending in the Continental Herding Style. That is, they work as an upright herding dog, with dog-broke sheep and the shepherd. With the help of the BSD, the shepherd took his flock along roads and tracks each day to the designated grazing area and would set the dog to task to keep the sheep safe within the grazing area, acting as

an invisible fence, and warning of approaching danger. Then at the end of the day, the shepherd and his dog took the sheep home. At night, the BSD was part of the family.

These attributes as working one on one with the human shepherd and integrating with the rest of the human family after hours, the fetching instinct, the willingness to work as a team, robust health, and ability to cope with weather extremes gives today's modern society a healthy dog that enjoys a good game, is easy to train, is a great watch dog, and good with family.

The BSD has short pasterns enabling quick and nimble turns which are needed to round up errant sheep. Everything is in moderation with the BSD, ensuring for an efficient dog that can work all day without excessive waste of motion. The reach of neck is needed to see over the sheep and observe what is happening on the other side of the flock. The upright ears are for hearing any approaching danger to the sheep. The wariness of strangers was historically necessary so that the sheep were not taken by passers-by with the dogs blessing. The eyes are on the front of the BSD's head, more so than the side, enabling forward sight rather than peripheral vision, which is necessary for watching a flock of sheep. The BSD is constantly on the go, often running in circles, with boundless energy, and a willingness to partner it's human, in training and in work.

3.0 BSD Breed Health

The most frequent health or health related concerns identified in the 'Future Directions' survey were behavioural issues (44.62%), cryptorchidism (13.25%), cancer (11.5%), missing teeth (8.65%), skin disorders (8.27%), and seizures (5.6 %).

As would be expected in a healthy breed such as the BSD, the most frequently indicated cause of death was old age, or complications of old age (42% of deceased dogs). This was followed by cancer (almost 26%) and then snake bites (just under 6%).

4.0 Health Screening

Although the BSD remains a relatively healthy breed and is not particularly prone to any major health concerns (Honkanen, 2018), several overseas canine schemes have identified relevant health (disease) tests for breeding dogs across the four varieties of the BSD. These range from the minimum requirement of hip, elbow, and ophthalmologist examinations (Kennel Club UK, 2018) through to undertaking hip, elbow, and ophthalmologist examinations along with autoimmune thyroiditis, cardiac and dentition examination (American Kennel Club, N/D) (see Appendix 6).

Within Australia, screening of hips and elbows are the most practiced health tests employed by BSD breeders. The Australian Veterinary Association (AVA) and the Australian National Kennel Council (ANKC) jointly established the Canine Hip and Elbow Dysplasia Scheme (CHEDS) in January 2000, and since that time the AVA had been responsible for administering the scheme from its Canberra office. The AVA has since ceased participation in the scheme, and the ANKC became the sole manager on 30th April 2016. The ANKC recommends members should base decisions about the appropriate method for screening for canine hip dysplasia on the best evidence currently available.

Coxofemoral laxity is considered the best phenotypic predictor of hip dysplasia and can be determined at an early age. Current screening schemes test for slightly different criteria. The CHEDS scheme is weighted towards secondary joint changes associated with hip dysplasia, and these may not be fully evident at 12 months of age and often not before 24 months of age. Other schemes are

available that assess a dog at an earlier age, for example, the PennHIP® scheme gives an estimate of the risk for osteoarthritis of canine hip dysplasia later in life, and this can be assessed as early as four months of age. The Pupscan Project began in 2015, a not-for-profit research organisation. This project employs diagnostic ultrasound images of a pup's hips and elbows from 14 days to 16 weeks of age, confirming that the hip (or other relevant joint) is developing normally for age, gender, and breed.

At least 33% of the surveyed BSD's had completed one eye screen under the Australian Canine Eye Scheme (ACES), with three quarters returning normal test results. Identified eye disorders were persistent pupillary membranes and 'cataracts'. BSD's are stated by the ACES scheme as being 'recognised' for non-congenital hereditary cataracts and are 'under investigation' for persistent pupillary membranes.

From the surveyed BSD's, most had not completed health screening by a specialised veterinary cardiologist for evidence of cardiac disease. Of the 20 dogs who were reported as having been screened, the majority (80%) showed no auscultatory evidence of cardiac disease; two had been diagnosed with patent ductus arteriosus (hole in heart).

DNA testing is becoming more commonplace, particularly in Queensland, as the State canine body Dogs Queensland mandates Parentage Profiling, and some breeders and/or owners take advantage of testing for genetic diseases and genetic traits. The types of tests vary with the genetic service provider. Of the surveyed BSD's, 15% of those entered had undertaken testing (most often with Orivet - https://orivet.com) with no genetic diseases identified.

There was a small number of other health tests completed, usually related to screening for presenting illnesses. The main other tests undertaken were full blood works and thyroid function tests.

5.0 Breeding Recommendations

In order to maintain the Belgian Shepherd Dog (BSD) as a dog fit for its' original breeding purpose, and to improve on its' relatively current sound health status, the BSDCNSW recommends that all of the BSD varieties (Groenendael, Laekenois, Malinois, and Tervueren) are assessed for hip, elbow and eye disease, full breed DNA profile, and any other available tests for any known health issue in the breed as testing becomes available. The BSDCNSW also strongly encourages breeders of the BSD to have their dog undergo regular dentition examinations.

6.0 Appendices and Useful Links

6.1 BSD Breed Standard

https://ankc.org.au/Breed/Detail/97

6.2 BSDCNSW Code of Ethics

https://1drv.ms/b/s!AvIiz7oG0gYkbHUsjzcDH9My0RI

6.3 Future Directions BSD Breed Survey 2019

https://www.bsdcq.com/uploads/6/6/3/5/66358549/future_directions_the_australian_and_new_zealand_bsd_health_survey_report_2019_amended_1.pdf

6.4 Future Directions BSD Breed Forum 2019

https://www.bsdcq.com/outcomes-breed-health-survey--forum-australia-2019.html

6.5 Australian National Kennel Club Health Information and Schemes

https://ankc.org.au/HealthAndWelfare/?id=1332

6.6 Overseas BSD Specific Health Testing Recommendations

6.6.1 *Recommended Health Tests from the Belgian Sheepdog of America (BSCA):*

- Hip Evaluation
- Elbow Evaluation
- Ophthalmologist Evaluation

The BSCA also suggests that health discussion with a potential breeder includes epilepsy, thyroid problems, cancer (gastric and hemangiosarcoma) and temperament.

6.6.2 *Recommended Health Tests from the American Belgian Laekenois Association (ABLA):*

- Hip Evaluation
- Elbow Evaluation
- Ophthalmologist Evaluation
- Cardiac Exam
- Thyroid Evaluation
- Dentition Exam

The ABLA strongly recommends that all U.S. breeding dogs have screening tests performed to determine their status regarding the following potentially inherited conditions: hip dysplasia, elbow dysplasia, inherited eye disease, heart disease, thyroid, and dentition.

6.6.3 *Recommended Health Tests from the American Belgian Malinois Club (ABMC):*

- Hip Evaluation
- Elbow Evaluation
- Ophthalmologist Evaluation

The ABMC also suggests that discussion with a potential breeder include epilepsy, cancer (hemangiosarcoma), thyroid and cardiac history, and temperament.

6.6.4 *Recommended Health Tests from the American Belgian Tervueren Club (ABTC):*

- Hip Evaluation
- Elbow Evaluation
- Ophthalmologist Evaluation
- Thyroid Evaluation

Health Statement: The Board of Directors of the American Belgian Tervueren Club recommends testing of Eyes, Elbows, Hips and Thyroid for all Belgian Tervueren.

6.6.5 *Recommended Health Tests from the Finnish Kennel Club*

Compliance with PEVISA requirements and a character test.

6.6.6 *Recommended Health Tests from the Belgian Kennel Club:*

For a part of Belgium (Flanders), it is legally required to have breeding dogs tested for HD and ED and have a vet statement that the dog is not epileptic.

6.6.7 *Recommended Health Tests from the Danish Kennel Club*:

Mandatory: x-ray of hips and known result before breeding. Male two testicles down

Recommendations: A or B hips, 0 or 1 on elbow

6.6.8 *Recommended Health Tests from the German Kennel Club*

- HD A or HD B
- ED 0/0 or ED borderline/borderline (note: borderline is less than ED 1 and more than ED 0)
- Dogs will usually be x-rayed for lumbosacral transitional vertebrae but there is no grade currently that bars them from being used in breeding.
- Dogs who have Malinois within a certain number of generations may need to provide a test for SDCA, CJM, etc to make sure carrier is not mated to carrier.

Prior to breeding all clubs require:

- A specific number of dog show results from club shows that confirm a specific quality of the dog (EG: one club requires "one very good and one excellent" . Therefore, males need both testicles fully descended.
- A character test.
- An evaluation by a specific breed judge who declares the dog fit for breeding according to its show, character and health results.
- Litters will only be registered if both parents have reproduced naturally at least once - you cannot do an AI on a maiden bitch.

6.6.9 *Recommended Health Tests from the Swedish Kennel Club*
https://www.skk.se/.../uppfod.../registreringsregler_r42.pdf

To be able to register a litter in SKK the parents must have HD and ED scoring completed prior to mating - HD can only be A or/and B and ED must be 0/0.

6.6.10 *Recommended Health Tests from the United Kingdom Kennel Club*

The UK Kennel Club operates an excellent priority health scheme**.** They strongly recommend that all breeders use the KC provided inbreeding calculator, and visit the Health Test Results Finder to discover the DNA or screening scheme test results for any dog on The Kennel Club's Breed Register. A breeder can also view the inbreeding coefficient calculation for a puppy's parents, or for a dog they are thinking of breeding from. The Kennel Club's Assured Breeders must use, and all other breeders are strongly advised to use, the:

- Hip dysplasia screening scheme (BVA/KC)
- Eye screening scheme (BVA/KC/ISDS)

6.7 Genetics of BSD coats and colours

https://pubmed.ncbi.nlm.nih.gov/3229636/

http://www.bsdcq.com/uploads/6/6/3/5/66358549/coat_colour_inheritance_jm_vanbutsele.pdf