



BMDCA Info Series

Learning About BMDs Through Berner-Garde

2020 #21

Introduction ► The Berner-Garde Foundation (“BGF” or Berner-Garde – www.bernergarde.org) was incorporated in 1995 to collect, maintain, and disseminate information about genetic diseases observed in the Bernese Mountain Dog. BGF is an independent, tax-exempt, not-for-profit organization with its own Board of Directors. Its mission is “... to ensure that all Bernese Mountain Dogs (BMD) have a long and healthy lifespan of twelve to fourteen years.” In addition, the BGF established the BMD DNA and Tissue Repository in 2006 with the support of the BMDCA and in partnership with Michigan State University. This repository is a valuable resource for health researchers. It supports the mission of BGF by aiding research efforts to identify genes that impact the expression of canine diseases and assisting in the development of improved diagnostic and treatment options.

The BG database contains health, pedigree, and other information that has been compiled over many years from voluntary submissions received from owners, other international BMD databases, and public information sources, including the Orthopedic Foundation for Animals (OFA). The information in the Berner-Garde database is publicly available online and free of charge to everyone. Puppy buyers, owners, and breeders can use the database for a wide variety of purposes, as can veterinarians and health researchers, especially those who are working to reduce genetic disease. Among the critically important features to existing users and those that impress new users are the system’s ease of use, robust search capabilities, and ever-growing database. Mining meaningful information has never been so easy!

The primary focus of this *Info Sheet* is to describe some of the BGF database search capabilities and suggest how the information gathered might assist in breed and breeder research. Remember that the results of this research should be combined with insights gained through discussions with others knowledgeable about the breed, interviews with breeders through which you can assess rapport and fit with your expectations, networking, kennel visits, and reference checking. Other roles and resources provided by Berner-Garde will also be outlined. Additionally, the ease and importance of inputting data into the database will be highlighted.

BGF Database & Learning About BMD

Breeders ► If you attended a dog-related event, for example, and saw a Berner in which you were interested but only managed to get its registered or call name, you might not know how to find contact information for the breeder or owner. If the dog has been entered into the BGF database, there are several ways you can try to find this information. Once you have entered the online database as a “Guest,” click on “Dogs,” and

enter the dog’s registered or call name and any additional information you have. Hopefully its record will appear. From there, you can do research on the dog, the dog’s parents, health screenings completed, the breeder, and even the dog’s littermates.

The BGF database is a great tool for puppy buyers who want to learn about BMD breeders and get a feel for their breeding practices. For Bernese, there are several health screening tests and certifications that responsible breeders are sure to complete, consider in their breeding decisions, and hopefully disclose via the BGF database. In addition, responsible breeders also complete and share the results of additional tests (listed below).



Irresistible!
But what facts can be learned through the Berner-Garde database?

The current BMDCA-recommended health screening tests and certifications for both the dam and sire include: AKC DNA Profile, Hip Dysplasia, Elbow Dysplasia, eye examination, cardiac evaluation, Degenerative Myelopathy SOD1A and SOD1B tests. At least one optional test must be completed. Those include: Von Willebrand’s Type 1, thyroid, and Histiocytic Sarcoma Risk Test. For more information, go to: http://cdn.akc.org/Marketplace/Health_Statement/Bernese-Mountain-Dog.pdf and <http://bmdca.org/health/tests.php>. Results of these tests and certifications can be maintained in the BGF database. Breeders and owners are also encouraged to enter health information throughout the dog’s life, including the date and cause of death. Within the database, on the dog’s home record page, a gold star over the “Certs/Tests” table means that all of the recommended testing for that dog has been completed and recorded. This is signified by a BRT (gold star) certification (Berner Recommended Tests).

By searching through the “People” function to locate the breeder, a puppy buyer can mine considerable information. The first red flag should be if the BMD breeder and his/her dogs are

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not entered into the BGF database. The next thing to verify is whether a BMD breeder is consistently completing and reporting health-test results. The database user also can see what the results are for that breeder's dogs over time, the longevity of that breeder's lines, health issues that have been reported, and other information that is contained in the various dogs' records under that breeder's name.

Another powerful tool for puppy buyers, breeders, and others is the "Litters Bred" query through which one can navigate to gather information about health-testing results, health information, longevity, etc. for any dog's dam, sire, half-siblings from other litters, grandparents, aunts, uncles, etc. Two quick things to look for are completeness and absence of data. This can help verify a breeder's participation in open information sharing and help in preliminarily assessing claims made regarding his/her dogs and/or breeding history (e.g., "my lines are cancer-free and long-lived"). For example, if there is data on only one puppy out of a litter of eight, or if there is no multi-generational data on related dogs, these statements seemingly lack substantiation and should prompt you to ask for additional details.

All of this information can be helpful to a puppy buyer who is gathering facts and trying to find a responsible breeder. These insights should be combined with knowledge gained from a personal visit(s) to the breeder's kennel where rapport with the breeder can be assessed, as can the temperament and type of the litter, dam, and sire, if he is available.

BGF Database & Learning About BMDs ► There are several "Reports and Queries" categories that might be of interest to those wanting to get insights about the breed. All BGF database queries utilize drop-down menus, which are "select-and-click" and simple to use. Once the user has selected the parameters for a search and hits "submit," a list of dogs meeting the search criteria will be shown on the computer screen. Within each dog's listing, there are active links upon which the viewer can click if additional information is desired about that dog, its owner, or breeder. This includes access to the dog's pedigree, photo, if on file, health information, etc.

As an example, an individual considering the breed who is interested in competitive/performance activities, such as Agility, could click on the "Dogs By Title/Award Query" button, select "Agility Excellent Preferred" from the extensive drop-down menu, and then view the list of dogs that have earned that title. The menu contains virtually all of the recognized titles and sponsoring organizations in all canine competitive events in the US, Canada, and many other countries.

A similar search capability can be found in the "Health Query" section. From drop-down menus, the individual first selects data elements by category, such as "Cancer/Neoplasms/Tumors," then selects a diagnosis such as "Osteosarcoma," and then selects a "Location," such as "Legs." In this query well over 100 records appear that provide the individual with access to the files of each dog in the database with Osteosarcoma in the legs. It also includes owner and breeder information. Currently there are 15 health categories that can be combined with the drop down menus in "Diagnoses" and "Location." The ability to query this information is powerful and informative.

Another valuable research tool is the "Certification/Test Query." An example of how this resource might be utilized would

be to query BMDs having been evaluated by PennHIP (Pennsylvania Hip Improvement Program) or another relevant health certification. All of the health-certifications that are recommended specifically for BMDs by the BMDCA, in addition to others, are included in this portion of the database. Again, this query capability offers answers to endless questions with a few clicks.

BGF Database & Running Simple Reports ► Once it becomes apparent how simple the Berner-Garde database is to use, the fact-based buyer, owner, and breeder might wish to explore its other capabilities, for they are equally easy and intuitive. Reports by offspring, owner, breeder, and other categories can be generated. Through "The Bernese Mountain Dog Stud Finder" one can run a report with search parameters that include drop-down menu selections for age/health, certification testing, location (where the dog resides), and other criteria (champion/non-champion and photo availability). Also, functionality has been built into the BGF database so the user can run "Trial Pedigrees" and evaluate a multi-generation pedigree as if a breeding had taken place between the selected sire and dam.

Other Berner-Garde Resources & Roles ► On the Home Page of the BGF website, there are navigation buttons allowing easy access to other important and helpful information.

Noted previously, as part of its mission to improve the health and longevity of Berners, Berner-Garde and Michigan State University, with support from the BMDCA, have established a repository that collects, stores, and maintains DNA and tumor tissue samples from Bernese Mountain Dogs. The goal of the Repository is to facilitate research on serious genetic diseases affecting the breed. The samples collected, along with the health and pedigree information in the Berner-Garde database, have assisted researchers who are studying genetic canine diseases, specifically those that impact BMDs. Everyone who has a Berner can help, as DNA samples are needed from both healthy and affected dogs. Information about how to submit samples is provided on the website.

<http://bernergarde.org/Home/Repository.aspx>

Submitting Information to the BGF Database ►

While the focus of this *Info Sheet* has been on retrieving and using data from the BGF database, it is important to note how quick and easy it is to enter information about your own Berner into the system. One simply clicks on "Submit Data," then selects "Individual Dog Submission Form", and completes the short online form, which only takes a few minutes. The task will be even faster if you have your dog's *AKC Registration Form*, breeder's name, and his/her contact information handy when you do this. It is important that every Berner's information is entered into the system, even if the dog is not going to be used for breeding. Obtaining and reporting health-evaluation results for hips and elbows, heart disease, eye disease, etc., on all BMDs is critical in assessing health advancements over time. As your dog ages, be sure to enter health updates including the cause and date of death. If your Berner has a tumor or illness, please consider submitting tissue to the Repository. All of these actions are part of responsible BMD ownership, and with the collective impact of Berner owners working together, we can achieve the BGF goals of steadily increasing the breed's average length of life while also enhancing the breed's quality of life.