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*The Official
Newsletter of the
Bearded Collie
Foundation for
Health*

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**A Harsh Lesson Learned
(Hopefully!)**

Gordon Fitzgerald, Editor and
Hurricane Katrina survivor

Hurricane Katrina has come and gone, but her legacy will and should last for many years. There are lessons to be learned here.

First, a bit about me. I am an EMS helicopter pilot who was one of many who spent the days right after Katrina flying into and out of New Orleans taking people and patients out of the flooded zones. I live in Houma, which is about 40 miles SW of New Orleans.

I do not intend to take up space here discussing all of the failures that led to the disaster in New Orleans, but only want to say a little about the toll on the pet population. I am sure that no one who is reading this cares less for his or her pets than I do. But do you have a plan for their evacuation, care or rescue if disaster befalls your area?

We have all seen the pictures of the pets left behind by evacuees of New Orleans. And I know every one of us has, at least momentarily, wondered why more isn't being done for them. Let me give at least a few answers to that.

First, human rescue must be the priority. And that is the way it should be.

Second, it isn't safe. My vet was telling me he talked to a Fisheries department employee who, with others, went to New Orleans specifically to rescue pets. They were denied permission to enter the area. They were told that their boat was too small and it would be too easy to upset it. Also, unless they were authorized to carry a gun and armed with one, they could not be allowed in because it was not safe and there was no one available to escort and protect them. We also now have the same problem with the pets as we have with all the people who were stranded there. Disease! Due to the conditions there and the debilitated condition of many of these pets, disease will be spreading rapidly and the rescues will have to be quarantined.

There are many dogs, cats and other pets being rescued in ongoing efforts. Organizations such as Pasados and many other agencies are working as hard as humanly possible to save as many as they can and doing a wonderful job. My fellow pilots and I see National Guardsmen and other rescue workers save dogs and cats every day. LSU has turned their agricultural facility into a huge rescue center for example. Also, many of the every day pet rescuers in the area now need to be rescued. For example, I know of one lady with 16 rescue Collies who is trying to get her rescues out.

In the end it doesn't matter, whether it is a hurricane in the Gulf, an earthquake in the Western US, a tornado in the Midwest or a blizzard in the North. We have accepted the responsibility for the lives of our four footed friends, and it is our job to plan ahead to insure their safety. So please take a look at the type of disaster that might happen in your area and decide what is the best way to insure the safety of your Beardies and their non-Beardie friends.

President's Reflections by Elsa Sell

It is urgent to update your Beardie's current health status if he/she has DNA in the Addison's project! This is true even if there are no changes, the dog remains healthy, or has developed a health problem, including Addison's. Go to - <http://cgap.ucdavis.edu/healthupdateform.htm>.

Note: The Addison's research project is entirely separate from BeaCon's Open Health Registry. If you are in both, you need to update each separately.

BeaCon's Open Health Registry. Access to and forms on the on-line open health registry (OHR) have been reworked. The forms are user friendly, data entry is faster, and for the first time there is public access to certain sections of database. The software work was done by an outside consultant, starting in January. Testing was completed in July and August. At this time, the program is only in English. Unfortunately, WEBTV users cannot gain access to the database because it does not fully support the software.

Updates should be done yearly. **As always, there is no charge for data entry.** Those updating or first time participants should go to this URL, read the instructions, and then link to the database: <http://www.beaconforhealth.org/forms.htm>

Anyone may use the search and report functions. The available searches are dogs, health screens, or specific diagnoses. With the dog search, once you have a dog's information displayed, you can review the dog's diseases (if any), health screens, reproductive information, a five generation pedigree, and search for family members in the database. The search on diagnosis gives list of all dogs with that diagnosis. You can view each individual dog's record from that point.

The reports are female reproductive stats, male reproductive stats, and disease. The disease report gives the dog's name, birthdate, age of diagnosis, sire, dam, and who documented the diagnosis. BeaCon encourages veterinary confirmation of a diagnosis, although that is not required. The reports can be printed, although you need to be aware some of them will be very long (especially the female reproductive stats).

All searches and reports are dynamic, so they display all that is in the database. The pedigrees are generated by other software, so those they will not be available until several weeks after a new dog is entered. Transition to 5 generation pedigrees is ongoing in mid-October; until that is completed some dogs have 4 generation and some dogs have 5 generation pedigrees.

Access to the search and report functions are free for 28 days from the first time either a search or a report is done. Thereafter, there is a nominal yearly charge to help BeaCon offset the costs of the hosting service. The yearly fee is \$10 for OHR participants and \$25 for non-participants. This can be paid via PayPal or a check can be sent in the mail (although this will delay your access after the grace period is used up).

By the time you read this edition of Lighting The Way, many OHR participants will have had the opportunity to update and add new Beardies to the database. Availability will also have been announced on Beardie internet lists.

If there is sufficient demand, a hard copy book of select aspects of the OHR will be published early next year. Please contact me if you are interested in purchase of a book; cost will be that of printing and mailing.

Newsletter printing and mailing has been sustained over the years by donations, large and small, from individuals and clubs, to whom we are most grateful.

Some donations have been restricted for research use and we have honored those requests. Newsletter circulation has grown over the years. The spring 05 newsletter was sent by e-mail to 316 persons. It was mailed via the US postal service to 1285 in the USA, to 39 in Canada, and to 93 elsewhere. We have had the good fortune of the cheapest possible mailing costs from our printer.

Until very recently it appeared that we would need to begin charging a small fee to cover printing and mailing costs. That has been averted due to a very generous bequest.

Classification for BeaCon's tax exempt status continues as a public charity under section 501(c)(3). After the 5 year advanced ruling period, the required forms and documentation demonstrating public support were submitted and reviewed by the IRS. If you plan to include BeaCon in your estate planning, please consult with your lawyer regarding any special state laws that apply with regards to a 501(c)(3) organization. BeaCon welcomes donations from any geographic location. We do not register as a fund raising organization in specific states.

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"The soul is dyed the color of its thoughts. Think only on those things that are in line with your principles and can bear the full light of day. The content of your character is your choice. Day by day, what you choose, what you think, and what you do is who you become. Your integrity is your destiny...it is the light that guides your way."
**Heraclitus Greek Poet
Philosopher**

Sperm: collection, evaluation and other considerations

Linda Aronson, DVM

Whether you breed your dogs by live cover or artificial insemination, either in person, fresh chilled or frozen, knowing the quality of a stud dog's sperm will give you helpful information and a good indication of whether or not he's going to be able to get a bitch pregnant. Sperm can change dramatically over time. Some illnesses can severely impact sperm quality, particularly if the dog runs a high fever. Generally, it will take 6 weeks after he has recovered for his sperm to regenerate and his potency to return. Other illnesses may have long term effects on sperm quality and fertility. The tick-borne diseases have been linked to poor fertility in both stud dogs and bitches, and this may persist even after the dog has otherwise appeared to have recovered or if it never showed signs of being ill in the first place. Given that they hang freely away from the dog's body, the testicles are also vulnerable to traumatic injury, and function can also become temporarily or even permanently impaired if they become overheated from sitting on hot concrete or tarmac, or even from too hot a hair dryer.

Even without excessive abuse, if a dog is not used at stud every two or three weeks, and very few dogs are, sperm hang around in the extensive plumbing of the testes, and gradually degenerate. Before evaluating semen, and especially before breeding a bitch, it is a really good idea to have a practice run seven to fourteen days before the first breeding, to get rid of aging deformed sperm, and bring on some nice fresh active sperm for the actual breeding. Some dogs masturbate to the point of ejaculation, and if they do this regularly this step won't be necessary, but most dogs don't do this, and need helping out.

The breeding evaluation usually begins with inspection of the external reproductive organs, and this is a good place to start with your dog. Get him used to having his equipment handled from the get-go so that he is happy to let you assist in live breedings, and ready to accept the necessary handling for collection for artificial insemination. Palpate his testicles regularly – I do it when I am grooming – look for signs of discoloration, and gently feel for any abnormal lumps or dramatic changes in size (once he's past puberty). Get to know your dog's testicles when they are healthy. The penis should be extruded from the sheath, to make sure that it can do so easily, and examined for discoloration and other abnormalities. In older dogs rectal palpation of the prostate (in neutered as well as intact animals) is a good idea. Older intact dogs tend to undergo prostatic enlargement, and this can interfere with urination and defecation.

The next step in stud evaluation in breeding bulls, stallions, boars and some other species is usually measurement of the circumference of the testicles. In these species this gives you a very good indication of the expected volume of ejaculate. It's something we don't do in dogs, but perhaps with more dogs being kept on "ice" when they are in their reproductive prime or before they die, it may become common place.

In dogs we usually move right along to collecting sperm. Everyone has their preferred method, but for artificial insemination, unless the sperm is going straight into the bitch, using an artificial vagina attached to a plastic collecting tube is usually the preferred method. However, most artificial vaginas are latex, most of which is spermicidal (kills sperm) and cannot be gas sterilized. If reused the vagina needs to be washed, chemically disinfected and then rinsed several times with distilled water prior to

air drying. Semen can as easily be collected using a gloved or bare hand into any warm receptacle, sterile "Whirlpak" bags work well. Hard plastic should be avoided though as this can traumatize the penis and lead to substantial bleeding into the ejaculate. While this does not seem to affect fertility in dogs as it does in horses, it interferes with evaluation and is very uncomfortable for the dog, and will likely put him off the whole experience.

It is usually easiest to obtain an ejaculate in the presence of a bitch in estrus, although this is not essential. Synbiotics Corporation manufactures a synthetic pheromone – methyl paraben or "Eau d'estrus" – that may also be helpful. As the dog sniffs or starts to mount the bitch (if present), the prepuce is slipped back over the bulbus glandis – the large bump towards the root of the penis. The tip of the penis is slipped either into the artificial vagina (lightly lubricated with a small amount of sterile, aqueous, non spermicidal lubricant), the plastic bag or other collecting vessel. It is a nice touch if these are warmed to body temperature, although by no means necessary. Maintaining firm pressure behind the bulbus glandis with a ring of thumb and forefinger, the dog will begin to make pelvic thrusts and ejaculate.

Ejaculation can occur intermittently over a fairly long period, (15 minutes or so), so the collector and handler of the dog (and bitch if one is present) should try to get as comfortable as possible before collection begins.

A slightly cloudy pre sperm fraction of about 0.1 to 3.0 mls is produced first. This is followed by the whitish sperm rich fraction the volume of which can range from 0.1 to 6.0 ml. The third fraction of the ejaculate is clear prostatic fluid which has relatively few sperm in it, but can have a volume of 50 mls or more. Usually collection stops when the

prostatic fluid starts to appear. (Prostatic fluid makes a good diluent for insemination, and can be frozen and thawed to act in this capacity for frozen or fresh chilled semen. A volume of 3 to 10 mls is used to inseminate a bitch.) It is the total number of sperm, not the volume, which is important. Sometime during the collection, the dog will usually lift his leg over the arm of the collector, as he would in adopting the rump-to-rump breeding posture of a natural tie (some dogs will even attempt to lie down). There is no problem in letting him turn so his penis extends out under his tail. After collection, observe the dog to make sure his penis returns completely into its sheath. Some dogs develop a condition called paraphimosis, whereby the penis does not retract properly and it is at risk of trauma if left exposed. Applying lubricant may help the dog to retract the penis.

Sperm Evaluation

Normal semen should contain 100-500 million sperm/ml; for a total of 300 million to 2 billion sperm per ejaculate. The higher the number the better the odds are that the bitch will get pregnant. Of these sperm 70% or more should show progressive motility - be swimming forward in a purposeful and rapid fashion

"The sea is dangerous and its storms terrible, but those obstacles have never been sufficient reason to remain ashore...unlike the mediocre, intrepid spirits seek victory over those things that seem impossible....it is with an iron will that they embark on the most daring of all endeavors....to meet the shadowy future without fear and conquer the unknown."

**Ferdinand Magellan
explorer (c. 1520)**

rather than going in circles. A progressive motility of 30-50% is fair, and below 30% is poor. More than 80% of the sperm should show normal morphology. They should look like the little tadpoles in medical texts complete with a head and straight tail, and that little bump behind the head that contains the power (mitochondria) to keep their tails lashing so they can move forward. There is also a cap (acrosome) on the top of the head of the sperm which is necessary for penetrating an ovum. Abnormalities in any part of the structure affect the ability of the sperm either to reach or penetrate the egg.

Healthy sperm should be pearly white or translucent in color. Yellow semen indicates that urine, which is toxic to sperm, has contaminated the ejaculate. Red discoloration indicates blood is present. This can be the result of trauma, prostatic problems or infection. Normal semen should contain few non sperm cells. Epithelial cells and other debris will likely be high if the dog has not been collected for a while, as will the number of dead sperm cells. Bacterial counts higher than 10,000 bacteria/ml indicate that there is an infection in the reproductive tract – usually the testicles or prostate. Neutrophils – a white blood cell – will also probably be present in the semen sediment. Infection is usually associated with decreased progressive motility as well as decreased numbers of morphologically normal sperm. Culture of bacteria or measurement of the pH of the semen can determine which antibiotic to give the dog.

Artificial insemination

There are many purists who believe that only natural breedings are acceptable. However, the ability to use artificial insemination certainly gives bitch owners a far greater access to stud dogs that might be most compatible with their lines, as well as preventing genetic stag-

nation. Distance of separation becomes less of an issue, and bitches do not have to be shipped long distances to be bred. Of course, things do go wrong. Shipments go astray, weather prevents the semen leaving or arriving as planned. Not all veterinarians are skilled at preparing semen for shipping, evaluating the optimal time to inseminate a bitch nor do they all have necessary skill to inseminate the bitch. It is always wise to make extensive inquiries at both ends before committing your breeding dreams to the hands of others.

If possible it is a good idea usually for dogs to at least experience natural breedings as well as artificial ones, bitches too. Behavioral problems may show up that might make you think twice about the wisdom of breeding the animal, although many breeding problems do not appear to be inherited. Bitches may be too nervous or aggressive to permit the dog to mount. Dogs may need fairly extensive instruction in breeding 101 – trying to mount the wrong end of the bitch, dig through her to the ground or hurling themselves with such force that she is sent flying, being some of the problems you may have to overcome. Some dogs show little libido. This may be the result of constant correction of sexual behavior, or looking to their owners for guidance in every step they take. If a dog was attacked or hurt during a previous breeding he will likely remember that too. Some dogs become so excited they become fully erect prior to penetrating the bitch's vagina. In this case full penetration isn't possible and an outside tie is usually less likely to result in pregnancy.

**"Greatness is not in where we stand, but in what direction we are moving. We must sail sometimes with the wind and sometimes against it – but sail we must, and not drift, nor lie at anchor."
Oliver Wendell Holmes**

Once semen has been collected, inspected for gross abnormalities and a small sample examined microscopically the sample must be extended for shipment or freezing or inseminated into the bitch as soon as possible. Without extenders the sperm would not survive shipment or freezing. The extenders increase the volume. There are many different formulas. None works in all situations and some experimentation may be needed to find the best one for a particular dog. Having said that, not all dogs' sperm will ship or freeze well. Cooling and freezing semen damages cell membranes resulting in a loss of motility and general viability – this is known as cold shock. Most domestic species have high concentrations of polyunsaturated fatty acids (PUFAs) in their semen, but the amount can be variable, especially of DHA – an omega 3 fatty acid, and DPA - an omega 6 fatty acid. These variations influence susceptibility to cold shock. In horses a low DHA:DPA ratio is associated with increased susceptibility to cold shock and decreased fertility. A recent study showed adding a DHA nutraceutical to stallions' diets increased sperm concentration to 1.8 times that of unsupplemented stallions and improved motility in fresh, chilled and frozen sperm. As far as I know, similar research has not been performed in dogs.

A good extender has to have the right pH; the right osmolarity – so that cells don't gain or lose fluid; it must nourish and provide energy for the cells; and it needs to protect the cells through the freezing, thawing and rewarming phases.

Usually the total volume of ejaculate is used for insemination. Fertility decreases sharply with insemination of less than 50 million live sperm, and there will be a fair amount of attrition with time, chilling, or freezing and rewarming. Optimal extension rates for dogs have not

been established, but work with horses suggests 1:1 to 1:6 (semen:extender by volume) should be used for transporting sperm. Most opt for a rate of 1:2. The semen should be cooled at a rate of 0.3°C/minute to maintain optimal motility - this is the rate at which commercial Equitainers used for shipping horse semen, and by some for dog semen, cool down. The Equitainer also insulates the sperm against changes of external temperature extremely well. Commercial canine extenders (Fresh Express from Synbiotics) or equine extenders appear to work equally well. Skimmed milk can also be used if it is first heated to 95°C for ten minutes in a double boiler and then cooled to 37°C for use. The heating denatures a spermicidal protein in the milk. The extender and sperm should be at the same temperature and the extender added slowly.

If you intend to use fresh chilled or frozen semen, samples should be evaluated for longevity. The sample should be divided, and then samples should be carefully warmed to room temperature and reevaluated for motility and morphology after various time periods. This will give you a good idea of how well your dog's sperm will survive shipping or freezing. However, as things can always change, a drop of the sample should always be evaluated before the bitch is inseminated so that the status at the time of receipt is known. If all the sperm are dead, the bitch owner may want to institute plan B – if there is one.

**"For those who have seen the Earth from space, and for the hundreds and perhaps thousands more who will, the experience most certainly changes your perspective. The things that we share in our world are far more valuable than those which divide us."
Donald Williams**

It is recommended that sperm be collected no more often than once every 48 hours. Daily collection results in very low sperm concentrations after five to seven days. Registries – as well as some parent breed clubs – regulate who can perform artificial insemination – both collection and insemination steps. There are also regulations for importing sperm from another country, and within some countries. Check before you decide to go this route.

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New Guidelines for Heartworm Testing

The American Heartworm Society has updated guidelines on when to test dogs for exposure to heartworm. Read more on their web site – www.heartwormsociety.org

1. Annual testing is necessary because of some concerns about outbreaks in animals on preventives who still contracted heartworm. Thus the previous practice of not testing every year (maybe 2-3 years) is changed to testing annually. There are situations where prevention methods (drugs) are changed. To most effectively evaluate the efficacy of the original and new products, the dog should be tested for antigen prior to changing products, three months (for monthly products and DEC [note: this product is no longer being made]) or four months (6-month-injectable products) after changing products and again five months later (i.e., eight to nine months after changing products). These recommendations are made for medicolegal reasons and for manufacturer efficacy guarantees.

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Current CERF Statistics Compiled by Elsa Sell

CERF research data. The CERF database is comprised of information from all CERF examinations done by approved veterinary ophthalmologists (and there are 12 listed for Canada in Aug 05). Dogs with problems that are considered heritable don't receive a CERF number. Unless otherwise specified, the values in the tables represent number of dogs.

The % of heritable problems is a figure totally dependent on whomever decides to have a CERF exam done on their dog. In reality it doesn't represent the true frequency of heritable problems because a large proportion of living Bearded Collies in the USA do not have a CERF exam.

As has been documented previously, cataract is the most frequently reported heritable eye condition in Bearded Collies.

It is very important that a CERF examination be done on the littermates, parents, offspring, and other close relatives of each dog having a heritable condition. So, please all owners of a dog with a CERF documented heritable condition – contact your breeder to inform them and ask if they will work to have relatives examined.

CERF exams for litters listed in the Bagpipes, official newsletter of the Bearded Collie Club of America (BCCA). The only current requirement for litter listings is that both sire and dam have a passing hip evaluation. There is

"Excellence is never an accident; it is always the result of high intention, sincere effort, intelligent direction, skillful execution and the vision to see obstacles as opportunities."
Anonymous

	2002	2003	2004	2005**
Total normal dogs				
Male	45	46	66	8
Female	70	83	81	15
Total # dogs				
Male	65	73	84	12
Female	91	110	97	17
All eye problems				
Male	20	27	18	4
Female	21	17	16	2
Heritable Problems				
Male	7	8	4	3
Female	4	5	4	0
% Heritable problems among all tested				
Male	11%	11%	4.8%	25%
Female	4.4%	4.6%	4.1%	0
% Cataracts among heritable problems				
Male	100%	100%	100%	100%
Female	50%	100%	100%	0

** 2005 Figures are for 1/1 – 6/30/05 (one-half year). It is possible that some of the 05 exams had not yet been processed. We'll know this time next year.

no requirement for a current CERF exam.

The following data were gathered by searching the CERF database on-line for all litter listings in the Bagpipes for 2002-first half of 2005. CERF certification is valid for one year from the date of examination. As best I could tell from the CERF on-line information, I used the following definitions.

Current CERF means the exam was done within 12 months prior to the breeding, or in the case of older dogs the most recent exam was at 6 years of age or older. Several CERF exams were done within a few months AFTER the breeding. Those were not counted because the purpose of eye screening is to detect heritable conditions prior to breeding.

No CERF means the dog's name was

not in the CERF database (and I checked several spellings of most names).

CERF out of date means the dog had a CERF certificate, but it preceded the breeding by more than one year and the dog was younger than 6 years of age.

"No CERF" can mean different things – the exam was not done, the exam was done but not submitted to CERF for a certificate, or the exam identified a heritable eye condition so a CERF certificate was not given. The CERF database doesn't contain the information needed

"Excellence is the result of caring more than others think it wise, risking more than others think is safe, dreaming more than others think is practical, and expecting more than others think is possible."
Anonymous

to differentiate what “No CERF” means. Thus, for the purposes of considering a suboptimal situation, I have assumed that “no CERF” means that the exam was not done.

in the monthly newsletter.

This article and the one in the fall 2003 issue of *Lighting the Way*, and the CERF certificate lists in the *Bagpipes* provide information about eye screening in

	2002	2003	2004	2005**
# new litters	42	44	55	25
Litters where both sire & dam had a current CERF	9 (21%)	4 (10%)	4 (7%)	3 (12%)
Sire				
Current CERF	23 (55%)	8 (18%)	14 (26%)	8 (32%)
No CERF	12 (29%)	24 (55%)	22 (40%)	9 (36%)
CERF out of date	7 (17%)	12 (27%)	19 (35%)	9 (36%)
Dam				
Current CERF	22 (26%)	14 (32%)	8 (15%)	3 (12%)
No CERF	22 (52%)	24 (55%)	33 (60%)	20 (80%)
CERF out of date	9 (21%)	6 (14%)	14 (26%)	2 (8%)

** First 6 months of 2005

What can be gleaned from these figures and what is known about the rationale behind doing CERF exams?

Few litters have both sire and dam with a current CERF.

“It takes two to tango.” This saying goes for genetics as well as dance. Dams appear to be having fewer CERF exams (defined as no CERF exam).

To play a role in identifying and preventing heritable eye conditions, CERF exams must be current and must be done prior to a breeding, not after.

Presently, the BCCA requires just the OFA hip certificate # to be published on both sire and dam when a litter is listed

Bearded Collies in North America. Until we have a higher frequency of breeding animals with current CERF exams and until we have more extensive evaluations of CERF exams done on littermates and other close relatives of dogs with heritable eye conditions – we are not going to know whether heritable eye conditions are significant in Bearded Collies.

Now would be an ideal time for breeders, organization leaders, and other interested parties to initiate collaborative discussion. This should work out guidelines that emphasize the importance of increasing the frequency and currency of eye screening in Bearded Collies used as breeding stock.



SPOTLIGHT ON JUDY HOWARD

By Chris Walkowicz

Judy says she doesn't support her Bearded Collie habit...her very understanding husband does. And she doesn't have a medical background “unless Doctor Mom counts!” Besides her husband, Judy numbers three grown daughters and five grandsons in her family. Judy dearly loves her Beardies and the entire breed, and she is dedicated to improving the future for Bearded Collies. She has no other pets, saying “Beardies are all I need!”

Having had dogs since childhood, Beardies entered her life in 1990. Missy came from Kathy Coxwell, current BCCA President. Currently she has two Beardies sharing their household, having lost three oldies in the past two years.

Two attained their Championships, two CDs and one CDX. “Brooks” is her obedience dog in training at this time. All of her Beardies achieved their herding instinct title. In fact, her Chip earned his HCT at an AHBA herding test/trial at the age of 12! Brooks has his PT. She tried tracking a few times with her dogs and would like to pursue this activity further.

Her first love, however, is pet therapy. Chip was a natural at this and visited patients with Judy from the time he was two until he turned 12. Judy is a member of the Carolinas Bearded Collie Club and worked on the National Specialty hosted by CBCC. She's also been Treasurer, a Board of Director member and newsletter editor for the club's “The Bearded Collie Banner.” She has been a member of the BCCA since 1990.

Judy has been very active in BCCA rescue, helping in any way she can, first

in Louisiana and now in North Carolina.

She joined BeaCon's Board of Directors in 2001 because she wanted to do something positive for the breed. She's a strong believer in the concept of the open registry as a step toward healthier Beardies. “I believe that honesty is the only way to solve any health problems before they become unmanageable. I have never understood why some breeders want to try and hide a health problem. Secrets can only be kept if just one person knows that secret. Once it is shared with just one other person, then something about that secret will come out. Then it becomes a rumor. Wouldn't it be better to have truth out there than a rumor?”

She believes the greatest danger to the breed is “that some Bearded Collie owners and breeders refuse to acknowledge that we are seeing a rise in health problems in this wonderful breed.”

She is a member of BDL and BCL lists. She welcomes others to contact her regarding health information at beardiebunch@carolina.rr.com or 704-723-6884. When not doing something with her Beardies or dog-related activities, Judy loves to garden or read.

Lastly, Judy says, “I would like to encourage each and every Bearded Collie owner and breeder to enter their dogs in the registry. I believe being honest/open about any health problems is the only way to stop speculation and rumors. Before the internet, if there was a health problem, the knowledge of that problem could probably be confined to a small area. That is not the case now....The internet spreads news, good and bad, like wildfire, and facts become distorted with each telling. Enter your dogs in the registry and stop the rumors once and for all.”

“Vision is the gift to see what others only dream.” Anonymous

Shoot the Messenger

A guide for senders and receivers

Source: Double Helix Network News,
Summer 2005

Author, C.A.Sharp

C.A. Sharp is an internationally recognized expert on genetic health issues in purebred dogs. Her award-winning articles have been reprinted and translated numerous times. She is president of the Australian Shepherd Health and Genetics Institute, Inc. (ASHGI).

After years of hearing many sad accounts from messengers (i.e., dog owner whose dog has a serious health problem, sometimes one known to be genetic), and less frequently, having heard from thoughtful breeders not in denial, I wanted to share CA's perspective on the subject. I hope this can be reassuring to those who have been the messengers and the receptive receivers, and that it can inspire others to think about their responses in such situations. The article is reprinted in part, and with permission. E. Sell

It isn't easy to learn that your dog or bitch has produced an inherited disease, particularly one that is serious. We invest not just money, but a great deal of ourselves in our dogs. If something goes wrong, it feels like someone slammed a fist into your gut. All your hopes and plans for that dog and its relatives are suddenly in question. It's normal that your first reaction might be, "This can't be true!" But you need to get beyond the denial as quickly as possible so you can deal rationally and effectively with what

**"Leadership is about capturing the imagination and enthusiasm of your people with clearly defined goals that cut through the fog like a beacon in the night."
Anonymous**

you have learned.

It is no less difficult to be the messenger. Most of us have either been "shot" for delivering bad news or known those who were. At best it's unpleasant. Sometimes when the reaction is very bad, it can be painful or frightening. Even so, we must be as willing to share unpleasant news as we are the good things. Both are important to other breeders' efforts.

A Tale of Three Breeders.

Let's consider a fictional, but not atypical scenario. Sara, Kara, and Tara are breeders. Kara bred her bitch to Sara's stud dog and had a lovely litter. She sold a puppy to Tara. Two and a half years later, Tara contacted Sara and Kara to let them know the puppy had developed a serious potentially fatal, inherited disease.

Sara was shocked, but supportive, offering to help Tara in any way she could. When Sara got off the phone she sat down and cried for a while, but she knew she'd have to do some serious thinking about her boy and her breeding program.

Kara got the same call shortly after Sara. She went ballistic, accusing Tara of mistreating the dog and causing the disease. She went on to lecture the now sobbing Tara about how many years she had been breeding and all the honors and titles she and her dogs had earned where Tara had only been in the breed for a few years. Kara finished her tirade, declaring there were no inherited problems in her dogs, never had been, and how dare Tara attempt to destroy thirty years of breeding. Kara hung up, leaving Tara stunned and open-mouthed as the dial tone buzzed in her ear.

Kara the Incurrible. Not every breeder reacts as badly as Kara, fortunately. Some blow up, recover from their initial shock and deal with the problem in an effective manner. Some sim-

ply purge the information from their minds, denying they ever had any such thing should anyone ask. A few, like Kara, go over the top in their efforts to defend themselves against a perceived attack upon their dogs and themselves.

Most Karas out there confine themselves to bluster, depending on bully tactics to discourage further discussion. Those with camp followers may order a circling of the wagons, encouraging their minions to be socially obnoxious to the messenger, through snubs, rumor campaigns and insults. An exceptionally nasty Kara will pull out the big guns and threaten legal action.

Sometimes the Karas of the world plan ahead. After all, an ounce of prevention can save a lot of time and energy later. One breeder I'm aware of had, and may still have, a clause in her contract that forbids buyers from discussing the dog with a geneticist. It is doubtful that such a clause is legally binding, but it no doubt intimidates some into silence if anything goes wrong. One wonders why anyone would consider purchasing a dog from someone who made such a clause part of her contract.

Other Karas control through co-owns, preventing buyers from taking any step with the dog that they do not personally approve. Co-ownership is a common practice and can certainly be beneficial, but it is interesting to note that the American Kennel Club discourages the practice, stating bluntly, "Co-ownership agreements, in far too many cases, lead to problems."

The Karas of the world may also resort to a smoke screen by denying the condition is a problem at all. They may say that the dog isn't actually sick or that the

**"We cannot change yesterday. We can only make the most of today, and look with hope toward tomorrow"
Anonymous**

sickness isn't inherited. If forced to acknowledge the hereditary nature of the disease, they will insist that it must have come from the other dog rather than their own. If presented with information supporting the sick dog's diagnosis, they repudiate the accuracy of that information, declaring diagnostic work inadequate, the vet incompetent, or the experts on the matter don't know what they are talking about.

Tara Stands Firm. It isn't easy being the messenger, as Tara discovered. You hope people will be like Sarah and accept bad news with grace, but that isn't always going to happen. So what should you do if you find yourself in Tara's shoes?

You cannot let the task overwhelm you, even if it is slow going. When you find yourself under fire it may seem there's no point in trying, but the attitude toward inherited disease is shifting. Who would have thought 20 years ago that OFA would accept open listing of dogs that did not pass or that the AKC would encourage and support something like the Canine Health Information Center (CHIC)? (*Note: CERF still does not offer open listing in 2005! E. Sell*)

So, what to do? First, realize that you are not alone. The bully tactics are designed to keep people from communicating the unwanted information. This doesn't mean you must take out a billboard announcing what went wrong, but there is no reason you cannot inform concerned individuals. So long as you are truthful you are free to discuss it with whomever you choose. In the relatively unusual circumstance that you are threatened with legal action, consult an attorney. This can make sure you stay on firm legal ground in your locale, and probably give you peace of mind, as well.

The only people you must inform about genetic diseases, ethically, are the

breeder of your dog, and if you know how to contact him/her, the owner of the sire. What they do from there is beyond your control and responsibility. If someone acts like Kara, that behavior is her problem, not yours. Just say good-bye and go about your business knowing you did what was right.

Depending on your personal comfort level, you might join a topic related support group or consider open-listing your dog's condition if one of the health registries handles the disease involved. (Note: *BeaCon* offers a voluntary open health registry for reporting on health problems in Bearded Collies. E Sell.) The more accustomed we all become with readily sharing health information as we often do things (both good and bad) that pertain to conformation, temperament, or functional traits, the sooner people like Kara will set aside their anger and fear, and start dealing constructively with health issues.

Each of us bears sole responsibility for our own behavior. We must be willing to be the messenger, no matter what reaction we may receive. We must also learn to receive, and with that, to lower our weapons when someone comes to us with bad news. Otherwise, we return to the days of silence that allowed genetic diseases to spread almost unchecked.

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**"This is the beginning of a new day. You have been given this day to use as you will. You can waste it or use it for good. What you do today is important because you are exchanging a day of your life for it. When tomorrow comes, this day will be gone forever; in its place is something that you have left behind...let it be something good."
Anonymous**

Addison's Research Project Update

From Dr. Oberbauer's Presentation

9/29/05

Elsa Sell

Dr. Oberbauer's complete slide presentation will be available on the BeaCon and the BCCA web sites soon, along with a written transcript of the Q&A. Dr. Linda Aronson arranged for videotaping of the presentation. See odds & ends on page 19 to get a copy.

There are now 1466 Beardies in the study, a big increase since 2000. Repeat analysis indicates that heritability of Addison's is quite high (0.71), just as last year and as for several other breeds in the study. A heritability value of 1.0 means totally inherited and a value of 0.0 would mean no heritability. Although the mode of inheritance probably is polygenic, there is a major gene affecting expression of the disease; it functions as an autosomal recessive. Dr. Oberbauer's suggestion for practical approach to the genetics was for breeders to consider Addison's in Bearded Collies as an autosomal recessive. This is no change from last year. Other breeds participating in the study are Standard Poodles, Portuguese Water Dogs, Westies, Leonbergers, Great Danes, and in the future Tollers.

Several different approaches have been taken to begin the search for DNA markers associated with Addison's disease. In the Bearded Collies the first step was to take a small number of dogs unrelated as far back as the great grandparents. All 38 chromosomes of these dogs were screened with over 300 available markers. The theory is that if certain markers are found on the same chromosomes of these relatively unrelated Beardies, that one or more of those chromosomes could hold key markers. This approach has narrowed the chromosome number down from 38 to 13.

The next phase of work was to select a family of related Beardies (if memory serves me correctly this was around 90 dogs with 19 Addisonians). The chromosomes identified in the previous step were then screened in this family. The theory being that unaffected dogs could be differentiated from Addisonian dogs by differences of the DNA markers on one or more of the smaller number of chromosomes. Essential to success in this phase of the research is correct health status of each dog – even one dog misclassified (i.e., without Addison's when it has Addison's) ruins the analysis because of misclassification.

Therefore, if you have a dog(s) in the Addison's project, it is urgent that you update current health status, whether healthy or with a newly diagnosed disease. Go to:

<http://cgap.ucdavis.edu/healthupdateform.htm>

Results of this phase are not yet completed and could be significantly altered by health status of individual dogs.

The future holds promise for narrowing down the chromosomal location for Addison's disease. When that time will come is unpredictable; it could be soon; it could be years. Success depends on continued definition of the dog genome, which provides additional markers to more completely search for the involved gene(s); having more complete families (both across a given family and across generations); having accurate health status on dogs; and the time and funding for the tedious process of marker screening.

Dr. Oberbauer needs participation from breeders who can contribute multigenerational DNA samples in a family(ies) with an affected Addisonian, as well as all littermates of affected Addisonian(s).

Dr. Oberbauer stated at the seminar that if there were one thing she could ask for – it would be a change in

breeder culture! To understand there is no shame in having produced an Addisonian dog. But, it is bad thing when a breeder purposefully hides the fact from others and fails to take action that aids in the solution.

Although the kits are supplied for free, they cost \$6.66 each. If they are not used, that's money wasted for research. So if you've picked these up, please use them.

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Vaccinations

Excerpts from Dr. Ron Schultz's presentation at the Omaha specialty on 9/30/05.

By Elsa Sell

Immunity comes from two sources. Innate immunity makes up about 90%. This comes from carrying good bacteria, an intact skin barrier, cilia of the respiratory system, macrophages in the lining of the intestinal tract, and other things. Innate immunity can be influenced by nutrition and stress factors; it is not influenced by vaccination.

Acquired immunity makes up the remaining 10% of the immune response. It can be influenced by vaccination or other exposure to pathogens. The primary organs of the immune system are the bone marrow, thymus, lymph nodes and spleen. Acquired immunity basically functions as a memory which can be educated by exposure to pathogens. The most "educational" pathogens are parvo, distemper, adenovirus-2, and rabies. You will recognize those as the currently recommended "core" vaccines. The reason that the immune system responds best to the core DHP vaccines

"Integrity is a choice. It is consistently choosing the purity of truth over popularity." Anonymous

is probably because they are modified live vaccines. Although a killed vaccine, rabies also produces a good response, but unlike the other three it is almost certainly not life-long. It is important to know that other systems also play an integral role in immunity; namely, the brain and endocrine systems.

Infection ≠ disease. Natural acquired immunity comes from infection with a pathogen. An important principle to remember is that exposure to a pathogen causes far more infection than disease. Development of disease depends on the dose, route, and level of immunity against the pathogen.

Dr. Schultz believes firmly in the vaccination guidelines adopted by AAHA and AVMA in 2003. He has been publishing data since 1978 questioning annual vaccination and the use of a plethora of vaccines.

The puppy series of shots. Canine core vaccines (Parvo, distemper, adenovirus-2) are best given at relatively short intervals, starting at 7 or 8 weeks, with 3 weeks between each shot. It is important that one shot be given at 12 wks or older. The core vaccines should be modified live (MLV) because they provide more robust immunologic response. The rationale for giving one shot at 12 weeks or older is that interference by maternal antibody is less likely and the puppy's immune response is more vigorous with more likelihood of immune response. Rabies vaccination is with a killed vaccine. The first rabies vaccine is given at 16-24 weeks, depending on state law.

Infectious canine hepatitis immunity is garnered from the adenovirus-2 vaccine. Since hepatitis per se is very very rarely seen today, why give the adenovirus-2 vaccine? There are two good reasons. First, adenovirus-2 can cause serious bronchopneumonia. Second, with natural disasters such as the recent hurricanes in the SE USA, animals are being trans-

ported to different geographic locations which may not have seen the disease(s) being brought in by poorly or non-immunized animals.

Of the non core vaccines, he also was not keen on using the vaccines. He pointed out that they mostly are far less effective in immunizing against the disease than the core vaccines. The leptospirosis vaccine may only be effective in less than 50% of cases, especially the new vaccine. Immunity lasts for a variable period, often 6 months or less. He emphasized the relative risk, and pointed out that healthy animals rarely get sick from pathogens that they encounter. Development of disease also depends on the immunocompetence of the individual. Immune compromised individuals as well as those on immunosuppressive drugs are at far greater risk of disease."

So, an owner and their vet need to make decisions about what, if any, other vaccines beyond the core vaccines should be used. Consideration should be given to the dog's lifestyle and expected exposures. An example is use of Bordetella vaccine. This comes in intranasal or intramuscular forms. The intranasal vaccine provides protection against both Bordetella bronchiseptica and canine parainfluenza virus, both of which are involved in kennel cough. The intramuscular form only contains B. bronchiseptica. The intranasal vaccine provides immunity of a year's duration. Dr. Schultz pointed out that most dogs develop natural immunity to kennel cough by virtue of natural exposure to the pathogens contributing to kennel cough. The group of dogs who are least likely to have natural immunity, and therefore who would benefit most from kennel cough vaccination, are older dogs isolated at home.

Dr. Schultz spoke about the value of doing titers 2-4 weeks after the puppy series is completed. If the titers are low,

he suggested revaccination with one shot of a different manufacturer's product, and retitering 2 weeks later. If the pup still has low titers, you have a non-responder who is at very high risk of developing disease if exposed to the pathogen, and possibly even death. These are rare but important to recognize. If the titers are satisfactory, additional shots are probably not needed, although the practice is a booster at 1 year with 3 year boosters after that.

It was pointed out that hypersensitivity and lack of acquisition of immunity can develop if puppy vaccines are administered too closely together (e.g., weekly as was done in the 80's).

Efficacy of Nosodes. Research on the efficacy of Nosodes in providing immunity against important pathogens has shown no development of antibody, and therefore no protection. If you utilize Nosodes for puppy immunizations you need to recognize the inefficacy and potential risk of the puppy becoming infected and possibly diseased upon pathogenic exposure. The 2003 Canine Vaccine Task Force guidelines specifically state that nosodes do not provide immunity.

As to duration of immune protection, Dr. Schultz showed results of long term studies that were done to demonstrate unequivocal long term protection of several different vaccines against parvo or distemper. Once the puppy series of core vaccines was completed, immunity existed for the duration of a study, which ranged from as few as 5 years to longer. The immunity was measured by dilution (e.g., 1:4, 1:16; 1:64, etc.) antibody titers and a final challenge test with the pathogenic agent. Essentially, the controls (non-vaccinated) had zero antibody titers over time and they were not protected from serious illness or death with the challenging pathogen. The vaccinated group had high antibody titers over time,

and they were protected from the challenging pathogen, with the exception in one study of a "non-responder", as defined above.

Dr. Schultz pointed out that we need to realize that these studies are exceedingly difficult studies for many reasons, which include difficulty getting approval to conduct the studies because the animals used are challenged with the pathogen and will become sick with the disease and many will be sacrificed. Other reasons are animal rights activists, to having the isolation facilities necessary to support the dogs for long term studies (years), to purchase cost of pups with no antibodies at the outset, to the daily cost of maintenance and support between start and completion of the study. For example, most recently the purchase cost was \$1000/pup and the daily cost to maintain was \$9 per pup. In a study with 20 dogs, lasting 7 years, cost would be \$462,000 at the minimum. If you use more animals and run the study for longer, then the costs are higher. Dr. Schultz foresees the time when these studies will no longer be possible.

Although the recently reported dog flu is not particularly wide spread, it may well become so. There are not vaccines available for it at this time.

There is a flu vaccine for equines – IT SHOULD NOT BE USED IN DOGS!

When asked how to deal with veterinarians who continue with the one year revaccination schedule, Dr. Schultz suggested that owners obtain a copy of the 2003 guidelines published in the report of the American Animal Hospital Association Canine Vaccine Task Force. Take it to your vet for study and discussion. The entire set of guidelines can be found on several websites and a shortened version can be found at <http://www.vmeth.ucdavis.edu/vmeth/clientinfo/info/genmed/vaccinproto.html>

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Contributions to BeaCon and the open health registry should be mailed to:

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Sherrard , IL 61281-8553.

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[Http://www.beaconforhealth.org/](http://www.beaconforhealth.org/)

E-Mail Contest

Don't forget, if you elect to receive your copy of the BeaCon Newsletter by e-mail, you will be entered into the drawing for some great Beardie "stuff". Just contact the editor at;

grfitz@bellsouth.net

to get your name on the list. Not only can you win a nice prize, but the postage saved can be used for health issues. Thanks!

"The greatest discovery of any generation is that a human being can alter his life by altering his attitude."
William James

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Visit BeaCon on the web at www.beaconforhealth.org

Special thanks go out to our Past Directors:

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Open Health Registry Book - year 4 ordering information

A registry book containing selected portions of the cumulative open registry will be printed early next year if there are enough requests (20 or more). Please send an email to Elsa that you are interested in purchasing a copy.

Addison's Research Project Update

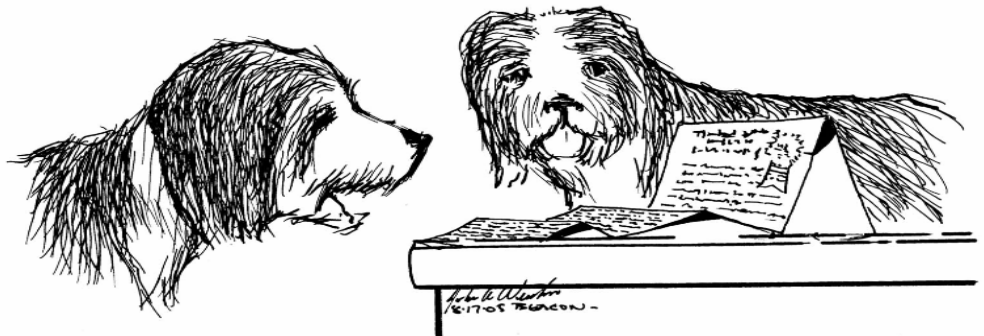
2005 National Specialty presentation by Dr. Oberbauer

For a copy of the edited videotape which includes a written transcript of the Q&A, send a check for \$5 made out to:

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This covers the cost of tape reproduction and mailing.
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