



WHI Newsletter

The Independent Breed Health Group



In this issue:

Front Cover

- Viewpoint WSAVA Vaccine Guidelines (Cont on P2)
 - Apology from the Editor Page 2
 - Fund Raising (Cont on p3) Page 3,
 - WHI Seminar 2013 Pages 4, 5
 - Thermal Imaging Case Study Pages 6, 7, 8, 9, 10
 - Using A Database To Record Pedigrees and Track Health Pages 11, 12
 - Leptospirosis - A Case Study Pages 13, 14
 - An Irritating Problem
 - The Use of Neem Oil in Animal Care
 - Honey for Allergies
 - Seaweed Alert Page 15
 - Genetic Diversity in the SCWT
 - A Small Boast Page 16
 - Glacial Healing Clay Page 17
 - Urinary and Bladder Stones Pages 18, 19
 - Dr Tom Lewis – Seminar 2013 Selection and Inbreeding
 - Stop Press
- Back Page
- Contacts
 - Endnotes



An Apology From The Editor

I can only apologise for the interruption to the production schedule of the Newsletter. Some readers will be aware that I am trotting around the ring with a little less trouble these days, following a hip replacement – but in addition to that, there has been more than my fair share of viruses and ailments (many of which come c/o my adorable granddaughter, I suspect!) and with the prospect of also moving house, I am afraid the Newsletter has taken a back seat! Anyway, I hope you find this edition interesting and that there will be another one along soon.

Lynn Carter

"To provide a platform for the reception and transmission of information about the health and well-being of the Soft-Coated Wheaten Terrier"

Issue: Twenty-Five

Viewpoint

With vaccination still being a 'hot topic' on most social networking sites, it is plain that many owners as well as those professionally involved in the health care of our pets are increasingly questioning what is in the best interests of the dog. It seems appropriate therefore, to quote from the Global health authority on this matter and the Vaccination Guidelines recommended by the WSAVA (World Small Animal Veterinary Association) are printed below. Later in this edition of the newsletter is a case study which may show how complex it can be to try to ensure the health and well-being of our animals through vaccination.



The World Small Animal Veterinary Association (WSAVA) has issued guidelines to veterinary surgeons and dog owners which aim to ensure that dogs are protected from infectious disease, while reducing the number of vaccines that are given routinely. Full guidelines are available at this link: <http://www.wsava.org/guidelines/vaccination-guidelines>

The basic principles of these guidelines are:

1. We should aim to vaccinate every animal with core vaccines, and to vaccinate each individual less frequently by only giving non-core vaccines that are necessary for that animal.

2. Vaccines should not be given needlessly. Core vaccines are those that are required by every dog in order to protect them from life-threatening infectious diseases that remain prevalent throughout the world. Core vaccines should not be given any more frequently than every three years after the 12 month booster injection following the puppy/kitten series, because the duration of immunity (DOI) is known to be many years and may be up to the lifetime of the pet.

3. The WSAVA has defined non-core vaccines as those that are required by only those animals whose geographical location, local environment or lifestyle places them at risk of contracting specific infections.

4. The WSAVA strongly supports the concept of the 'annual health check' which removes the emphasis from, and client expectation of, annual revaccination and suggests that vaccination (if required) forms

only one part of an annual veterinary visit that considers the entire health and wellbeing of the individual dog.

What this means in practice is that:

Core Vaccines

1. The WSAVA recommends that all puppies should have their initial vaccines against the core diseases, which are distemper, parvovirus and hepatitis (also called adenovirus). Note that in countries where canine rabies is endemic, rabies vaccination is also considered core, even when it is not required by law.

2. The WSAVA also states that the last puppy vaccine against the core diseases should be given at 14-16 weeks of age. This is because, before this time, the mother passes immunity to her puppies, and this 'maternal immunity' can prevent the vaccine from working.

3. A high percentage (98%) of core puppy vaccines given between 14-16 weeks of age will provide immunity against parvovirus, distemper and adenovirus for many years, and probably for the life of the animal.

4. All dogs should receive a first booster for core vaccines 12 months after completion of the primary vaccination course. The 12 month booster will ensure immunity for dogs that may not have adequately responded to the puppy vaccinations.

5. The WSAVA states that we

should vaccinate against the core diseases no more frequently than every three years. This is often taken to mean that we should vaccinate every three years – but this is not the case. If the dog is already immune to these three core diseases, re-vaccinating will not add any extra immunity.

6. The WSAVA supports the use of titre testing. This is where a small sample of blood is taken from the dog and checked for the presence of circulating antibodies. The presence of circulating antibodies indicates that the dog is immune, and revaccination (with core vaccines) is not required. You may decide to titre test before giving the 12 month booster, as this may show that boosting is unnecessary. Two new in-practice titre-testing kits are now available which will allow your vet to do a titre test very quickly, without sending the blood sample to a laboratory. Ask your vet to look into this less expensive option. One kit is called VacciCheck (Biogal Laboratories) and the other is called TiterChek (Zoetis).

7. It is important to give as few vaccines as possible, whilst also ensuring that dogs are protected from life-threatening viral diseases. The WSAVA seeks to reduce the number of vaccines given as there is always a risk of adverse reactions with any vaccination. The risk of adverse reaction is considered small and the WSAVA asserts that the benefit of protecting your pet from life-threatening infections far outweighs the risk of adverse reaction – although any reaction to a vaccine that is not needed is unacceptable. The WSAVA has listed the types of reactions in its vaccine guidelines (which you can see on the link given above). They range from mild (such as fever, loss of appetite), through to

Viewpoint (Cont from P1)

severe (such as epilepsy, arthritis, autoimmune haemolytic anaemia, and allergic reactions). The most severe adverse effects can be life-threatening.

Non-core Vaccines

The non-core vaccines commonly used for dogs are for Leptospirosis and kennel cough.

Leptospirosis

Of the Leptospirosis vaccine, the WSAVA states: "Vaccination should be restricted to use in geographical areas where a significant risk of exposure has been established or for dogs whose lifestyle places them at significant risk. These dogs should be vaccinated at 12–16 weeks of age, with a second dose 3–4 weeks later, and then at intervals of 9–12 months until the risk has been reduced. This vaccine is the one least likely to provide adequate and prolonged protection, and therefore must be administered annually or more often for animals at high risk. There are many different serovars (strains) of *Leptospirisspira* in the world.

Leptospirosis in dogs is most often caused by one of a small number (four to six) of these serovars. The vaccines available today contain the serovars that are most often the cause of canine Leptospirosis in a particular geographical area. This product is associated with as many or more adverse reactions than occur for any other vaccine. In particular, veterinarians are advised of reports of acute anaphylaxis in toy breeds following administration of Leptospirosis vaccines. Routine vaccination of toy breeds should only be considered in dogs known to have a very high risk of exposure."

Simply, this means:

1. The Leptospirosis vaccine

provides protection for a maximum of 12 – 18 months.

2. This vaccine can be associated with adverse reactions.

3. This vaccine should only be given if there is a real risk.

4. Leptospirosis may be relatively rare in your geographical area, so it's also worth asking your veterinary surgeon if he/she has recently seen any confirmed cases locally. If not, and your dog does not lead a lifestyle which carries a risk of exposure, you may decide not to vaccinate against Leptospirosis.

5. Signs of Leptospirosis may include one or more of the following: fever, joint or muscle pain, weakness, vomiting and diarrhoea, discharge from the nose and eyes, frequent urination, and yellowing of gums and around the eyes. If you observe these signs in your dog, you should take him to your veterinary surgeon straight away.

Kennel Cough

1. In most dogs, kennel cough is generally a mild illness, similar to humans having a cold or the flu. It is usually treated by keeping the dog quiet and giving throat soothing medications. Occasionally antibiotics can be given to treat secondary infections.

2. Kennel cough vaccines are generally only required by dogs in close contact with other dogs – for example in boarding kennels. However, you should check with your kennel because some will demand kennel cough vaccines, and others will not accept dogs that

have been vaccinated against kennel cough (due to shedding).

The recommendations by the World Small Animal Veterinary Association prompt many questions about how this important information is being interpreted by Veterinarians, Canine Health Insurance companies and Organisations providing boarding services or dog-related activities here in the UK.

Perhaps the following may prompt you to ask questions of the relevant organisations; we would be very interested to hear the responses you receive.

How are veterinarians in the UK responding to the concerns and recommendations of the WSAVA?

- We still hear regularly of owners being advised to 'boost' their dog's immunity with **annual** vaccinations.
- We still hear of veterinarians encouraging the vaccination of puppies **earlier** than the WSAVA recommended timescale, even though this may severely compromise the puppy's immunity.
- The recommendation by the WSAVA of '**titre-testing**' to establish the circulating antibodies of an individual dog and **save unnecessary vaccination** is only of relevance to us in the UK if vaccinations are available for each separate infectious disease but this appears not to be the case.
- How are veterinarians in the UK responding to the concerns and recommendations of the

WSAVA with regard to *Leptospirosis* (see also article on page 11) It would appear that many vets are continuing to simply recommend **annual** vaccination for this disease, with seemingly very little consideration of the concerns raised by the WSAVA.

How are the recommendations of the WSAVA being interpreted by the Pet Insurance Companies?

Quoting one of the largest companies in the UK; **PetPlan**, on my policy document they require owners to '**keep the dog vaccinated**': what does that mean, annual vaccination; bi-annual vaccination; vaccination every three years or perhaps once in a lifetime?

PetPlan also states that insurance cover will be affected by the vaccination status of the dog: this leaves the possibility of a claim for something totally unrelated to vaccination, such as a road traffic accident, being refused. Such cases have already been reported on the internet chat lines.

If anyone has a story to tell about how the WSAVA guidelines are being implemented or ignored by vets, insurance companies, boarding kennels etc. we would very much like to hear from you for a follow-up article in the next Newsletter. Change can only come about by the pressure of public opinion.

Let us celebrate those who put the best interests of the individual dog above their own financial considerations and shine a spotlight on those who don't!

Fund-Raising News

Malcolm, our Treasurer, reports that the Fund raising efforts made through our last on-line auction produced a clear profit of £173.84 for WHI after the deductions of e-bay fees amounting to £18.72 and PayPal charges of £10.57.

Donations

We have also benefitted greatly from several generous donations. Amanda Naylor held a party for her 'Wheaten family' of puppies she had bred, and their owners. Those who attended were asked to

donate an 'entry fee' and the sum raised was split between the WHI and the SCWT Club of GB.

We are extremely grateful to Amanda and all those who attended for their generosity. If the pictures in this newsletter are anything to go by, the day looks as if it was a fantastic occasion and much enjoyed by all who were there and practical issues such as grooming and trimming demonstrations were also on hand.



Amanda Naylor Family Day



Further Fund-Raising News

We are extremely pleased to have received a donation for £200 via Linda Salisbury from monies raised by the Dogs Unleashed event, which Linda organises annually. Linda is particularly keen that we should mention the large number of supporters who give so freely of their time to help her with this event and donate all the goodies for the tombola. This is the first year that all the Find the Flea squares have been sold.

Andrea Clarke generously presented WHI with a donation of £160 from the sales of her lovely artwork. Andrea specifically wanted the money to go to a 'good wheaten cause'.

Pam Clarke also chose to donate a

sum of money 'in lieu' of sending out Christmas cards to her 'doggy' friends.

In addition to the monetary donations mentioned above, we have also received one or two items for sale or auction, including a lovely grooming tool roll from Ann Leigh and a picture from Mandy Clamp.

We would like to thank all of the above and all the unsung heroes for their support.

The Steering Group are currently looking at the ways in which these and other donations can be best put to use for the benefit of the SCWT Breed as a whole.



The 2013 WHI Seminar

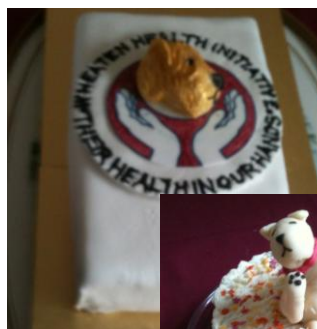
Last year's seminar to celebrate our 10th anniversary was also financially very pleasing, due to the efforts of supporters such as Pam and John Clark who did an amazing job as caterers. We must also acknowledge the generosity of our speakers:

Dr Tom Lewis BSc (Animal Science), MDip (Quantitative Genetics and Genome analysis), PhD (Quantitative Genetics) and **Hayley Springett** BSc(Hons), RVN, PGCE, Certified Veterinary Thermographer, both of whom kept their expenses to the minimum and provided us with a fantastically informative day, ably supported by

our very own Sandra Jeffries and her encyclopaedic knowledge of how to effectively use a database to track the progress of disease in our breed. Once again we are proud to say that this was really a seminar not to be missed!

Articles later in this edition reflect some of the information imparted to seminar attendees and how this information is underpinning current projects.

Further information about the seminar can be found at: <http://tinyurl.com/d8hwamh>



"Dogs are minor angels, and I don't mean that facetiously. They love unconditionally, forgive immediately, are the truest of friends, willing to do anything that makes us happy, etcetera. If we attributed some of those qualities to a person we would say they are special. If they had ALL of them, we would call them angelic. But because it's "only" a dog, we dismiss them as sweet or funny but little more. However when you think about it, what are the things that we most like in another human being? Many times those qualities are seen in our dogs every single day-- we're just so used to them that we pay no attention."

Jonathan Carroll



Thermal Imaging – A Case Study

I think everyone attending the last seminar found the topic of thermal imaging extremely interesting.

What follows is an actual case study, which has been sent to me for inclusion in this edition of the Newsletter and illustrates the use of Thermal Imaging as a diagnostic tool.

I am very grateful to the owner for their work in putting this report together. Although this example concerns a dog from a different breed, it still illustrates how effective the thermal imaging was in identifying and treating the dog appropriately.

A Case Study

Approximately two years ago my sight hound, aged 15 months presented with a lameness in his front left (near fore) leg. This was noticed after playing in my parents' garden with our other dogs. This being a Saturday we did the usual "let's see what it's like on Monday, it's probably just a sprain".

Monday arrived and the dog appeared to be much improved. We concluded our initial thoughts, a sprain, were correct and with time and restricted exercise he would be fine.

Two weeks passed and we attended our first show since the lameness subsided; to us the dog appeared fully recovered and perfectly sound. We had a very knowledgeable breed judge this day we were placed us 2nd in a class of 2. I was surprised as my dog had behaved and showed brilliantly.

After judging the judge approached us and asked "has your dog had an injury?" I replied "yes" and explained. The judge then proceeded to tell us "I like your dog and on another day the placings would definitely be reversed but today he was dropping his pastern and I had to place accordingly".

I thanked her for her opinion and left for home with my husband. After our dissection of the day's

events and results we agreed to take him to see our vet. We were very fortunate to be recommended a vet who was also a canine sports injury specialist. We booked an appointment.

After a lengthy consultation the vet announced that the dog had a "hyperextension injury to the carpal joint area of the left fore leg".

Due to the high amount of tendons and ligaments in this area it is impossible to pin point, without expensive scanning, which of these was injured but it is likely to be several.

The treatment was to be six weeks crate rest with two 10 minute walks around our local cricket pitch (due to it being a flat consistent surface) a day. He must be driven there and carried up and down any steps, stairs and lifted into the car. The beginning of this case study is important as it has great relevance to the latter chain of events.

The dog was 18 months old before we were able to get him back in the show ring after much heart ache and stress!

Life carried on as normal with us just being a little more vigilant about the "problem" leg. We were well aware that this was a weakness that would last a lifetime but with care should be manageable.

The dog turned 3 in May and no sooner had his birthday passed did he become lame. This time, unlike before, we had no knowledge of how our dog injured himself but he started presenting with acute lameness in the same leg - front left.

We immediately imposed the previous treatment restrictions, fearing the worst. We were now assuming it being a re-occurrence of the hyperextension injury. We rested him, bathed the leg in alternate hot and cold Epsom salt baths as before and waited.

Unlike the previous time the lameness did not improve, so off we trundled back to our specialist vet. To our surprise he diagnosed a

digital flexor injury, nowhere near the original carpal injury. Thankfully the treatment for this injury didn't include crate rest but walking and bathing as before.

The lameness continued and became quite acute and appeared to be emanating from the foot. Due to the treatment for the tendon injury the bathing had acted as a poultice and a black mark appeared on one of the dogs pads!

After poulticing and prodding to no avail by me we went yet again to the vets who managed to remove what appeared to be part of an embedded black thorn. Antibiotics were given and this healed with no further problem, unfortunately the now intermittent but severe lameness persisted.

With my suspicious nature I was not convinced by our new diagnosis as the problem was not appearing to improve and I just wouldn't believe I could have missed a flexor injury that would have caused such persistent and acute lameness.

Before we would allow the dog to go back to any level of normality, even though still lame on roads but not grass we decided to have the dog thermal imaged. This way we could make sure that the injury had healed and it was safe to carry on to the next recovery stage.

I called Veterinary Thermal imaging and was put in touch with Helen Morrell the representative for my area and made an appointment.

Helen arrived at the house and was lovely; she made friends with the dog and at no point appeared to hurry the appointment.

Helen was also extremely knowledgeable as she was also a qualified physiotherapist. Helen proceeded to take the images in the comfort of my front room as you would if you were using a normal camera.

I asked if the thermal imaging could show up a foreign body and explained about the black thorn.

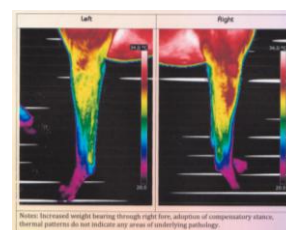
I was reassured that although it



may not show up a specific foreign body, especially if it were plant material, it would quite clearly indicate if there were an inflammation or underlying pathology that required further investigation.

Forty-eight hours later the report arrived.

Fig 1 (with notes attached)



Notes: Increased weight bearing through right fore, adoption of compensatory stance, thermal patterns do not indicate any areas of underlying pathology

To us the adoption of a compensatory stance was an obvious side effect of the left fore lameness and the additional weight bearing.

"The only creatures that are evolved enough to convey pure love are dogs and infants."

Johnny Depp





"A person can learn a lot from a dog, even a loopy one like ours. Marley taught me about living each day with unbridled exuberance and joy, about seizing the moment and following your heart. He taught me to appreciate the simple things—a walk in the woods, a fresh snowfall, a nap in a shaft of winter sunlight. And as he grew old and achy, he taught me about optimism in the face of adversity. Mostly, he taught me about friendship and selflessness and, above all else, unwavering loyalty."

**John Grogan, Marley and Me:
Life and Love With the World's
Worst Dog**



Thermal Imaging Case Study (Cont from P4)

Fig 2 was also interesting as this showed up the possible site that was diagnosed as the flexor tendon injury marked with an arrow.

FIG 2&3



Fig 3 shows the additional weight bearing on the right.

Fig 4 also shows the enhanced area in the medial forearm distal to the elbow joint. This area of injury is consistent with a shoulder strain and the leg being over extended out to the side away from the body.

FIG4&5

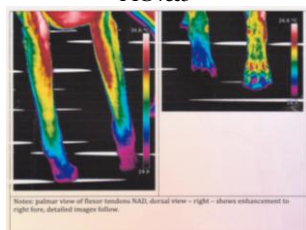
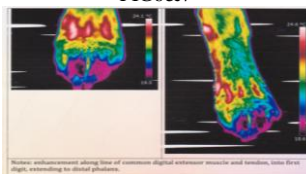


Fig 5 was the flash of enlightenment though; this gave us the strongest indication of what might be causing the lameness. As you can see, fig 5 quite clearly shows heat through the top part of the foot and the digital extensor muscle and tendons.

Fig 6&7 with the notes show this in a more detailed image.

FIG6&7



The response in the covering letter which was attached to the report from Helen states,

"On closer inspection, the area we discussed remained a primary area, and seems to be the common extensor tendons and muscle along the front of the wrist. There is an area of enhancement just to the inside and below the elbow too, this is on the superficial digital flexor muscle, so this could correlate to the shoulder pain seen, that you've been working hard to resolve. I imagine the leg came out to the side, and he

strained through those medial structures".

At no point are these images used as a diagnosis just as a diagnostic tool, this gives you an indication of where the problem may be arising from and where to explore.

We drew from the images and previous injury history that the "old hyperextension injury" had flared up again and was possibly aggravated by the injury to the shoulder. The shoulder was clearly showing signs of being a historical injury that was healing.

What would now become a very long story must be shortened. The lameness persisted and a spot appeared again on the same pad on the foot of the problem leg. On further investigation it was deemed to be a sinus tract that could have been caused by the entry/exit of a foreign body!!!

We were now in uncharted territory as my very experienced vet refused to operate and explore for fear of causing permanent damage in such an intricate area. It was suggested that we be referred to a soft tissue specialist with the facilities to CT scan. Off we headed to the specialist and the CT scan was taken.

The results showed no sign of a foreign body. Although that doesn't mean that there isn't a minute encapsulated remnant that is undetectable. Interestingly and more relevant to this article is what else the CT scan showed.

THE THERMAL IMAGING WAS CORRECT!!!!

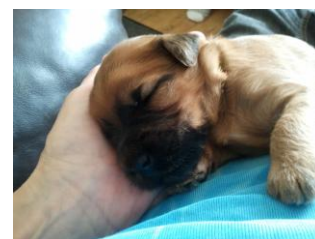
In summary the CT scan is far more accurate than a thermal imaging camera in your own home can ever be and although we still haven't got to the bottom of the lameness (which has now appeared to have settled) the CT scan showed that the historical hyperextension injury had now progressed to tendonitis through the extensor tendons.

The tendonitis would most definitely cause the enhancements shown on the thermal images. So although the thermal image did not diagnose the cause of the lameness neither did the CT scan, but the thermal image did show the tendonitis in the extensor tendons which the CT scan proved.

Would I use thermal imaging again as a diagnostic tool? Absolutely! I would also have no qualms in recommending thermal imaging to others.

*"Dogs' lives are too short.
Their only fault, really."*

Agnes Sligh Turnbull



"Petting, scratching, and cuddling a dog could be as soothing to the mind and heart as deep meditation and almost as good for the soul as prayer."

Dean Koontz

Using A Database To Record Pedigrees And Track Health

At the Wheaten Health Initiative **'Genes and Thermals' Seminar in 2013**, I gave an overview of how a database is useful for tracking breed health issues.

But, please note that I am not a geneticist and the following is a summary of how my concept of health reporting has evolved over the years.

Database History

In 1997 I purchased a software programme called Anim-All and began to add records of SCWT pedigrees. I donated this to the SCWT Club of GB and was asked by the committee to continue to add pedigree records and health information to the database on their behalf. It very soon became apparent that the ability to combine health records from various sources with the appropriate pedigree records, produced an integrated and easy way to access information.

When my assistance to the Club came to an end, the software programme and all the associated health information was handed over to the Club.

After this, I initially purchased another copy of Anim-All for my personal use but later found that the database software package 'Breeder's Assistant for Dogs' Professional Version (supplied by Tenset Technologies) provided a far more sophisticated product with many useful features (almost too many); simple user input; greater functionality and more relevant reporting selections.

The input of Wheaten data in my 'Breeder's Assistant' database now exceeds 56,000 records.

Method of Input

It soon became obvious to me that a logical method of data input was of vital importance, therefore I began with the first recorded Soft-Coated Wheaten

Terriers born in the 1930's in Ireland (their country of origin) and which are the foundations of the breed worldwide. The details of these dogs were input first and then recording continued chronologically to the present day. The database software then automatically allocates ancestry and also helps in my understanding of these ancestors.

Data collection

The collection of data is taken from the following sources:

1. Record information:

Breed Stud Book (UK), The Kennel Club Breed Record Supplements, Year Books from the Club of GB, the SCWTC of America; the Clubs of Finland and Sweden and from all respective Kennel Club and Breeder web sites.

2. Health data:

From Wheaten Clubs which publish Official Health Lists or Open Registries - Clubs of GB; America; Canada; Finland & Sweden.

Classification for Health data

The principle categories for hereditary diseases were determined as follows:

Renal failure (RF)
Renal Dysplasia (RD)
Protein Losing Enteropathy (PLE)
Protein Losing Nephropathy (PLN)
Addison's disease

Each disease has the following sub categories:

Affected/Died – a dog which is affected with or has died from an hereditary disease.

Parent - a parent who has progeny which is affected and/or died with a hereditary disease

Parent/Affected - parent who is also affected and/or died.

For these diseases there is, at present, no known mode of

inheritance, therefore the 'Parents' shown on the sub categories cannot be classified as 'Carriers'.

The pANCA Research Project

At this stage it is appropriate to mention this project, which started in 2007, when Wheaten Health Initiative collaborated with Dr Karin Allenspach at the Royal Veterinary College (RVC), and the Club of GB, in a study called the 'pANCA Research Project'

Alongside data monitoring at the RVC, Breeders Assistant was utilised for detailed pedigree information on each participating dog. Monitoring of dogs involved in this project was vital and the pANCA Project Team required a method to identify, on the pedigree of each dog, those ancestors who were parents of affected dogs and/or were affected themselves.

A specific colour to identify and display the hereditary diseases seemed to provide a solution; with just five diseases and their sub-categories to monitor.

However, it soon became more complex, as some parents have progeny with combinations of the diseases. In addition, two males (one of which was also affected), are sires of progeny from a variety of dams, which between them display all five of the hereditary diseases.

Unfortunately the available colours on the database are limited and because some of the colours were similar, proper identification was difficult. The answer was to add a number to each colour and so that no misunderstanding occurred, an explanatory table of 13 main categories and their sub categories was produced. This provided instant identification.

Recording started with the first known parents to produce affected dogs and this system



of classification soon revealed a pattern which could clearly be seen and followed through to the present day. It also offered the choice to easily identify each of the categories for 'search' and individual research purposes.

This system proved invaluable for the RVC pANCA Project Team for the fulfilment of their project.

More information about the pANCA Project is on this link: <http://tinyurl.com/qd8sydh>



"After years of having a dog, you know him. You know the meaning of his snuffs and grunts and barks. Every twitch of the ears is a question or statement, every wag of the tail is an exclamation."

Robert McCammon



Using A Database To Record Pedigrees And Track Health (Cont from P6)

Progression of Health data analysis

Putting the number/colour system to further use shows that the first disease recorded was Renal Failure (RF), and later Renal Dysplasia (RD) was identified. Looking at pedigree data at later dates, the colours changed to show the Protein Losing diseases leaving some pedigrees resembling a rainbow of colours.

It is very important to note here that there are many, many healthy dogs living on into old age even though their pedigree ancestry may display 'multiple colours'.

DATABASE ANALYSES

I find the following three database features of great use:

1. Pedigrees are perhaps the most commonly viewed document when ancestral data is required (e.g. matings), but the information shown is limited and it is important to study the health status of each ancestor.

2. Ancestor Analysis

A function of Ancestor Analysis shows Percentage of Blood and the explanation of calculation is shown below:

"Each dog gives 50% of his genes to his progeny and thus, on average 25% to each grandson and so on. The figures are accurate for one generation but no more. Thus we know for certain that a half of the dog's genes come from its sire but we can only estimate that a quarter come from grandsire and an eighth from great grandsire." (Malcolm Willis, Geneticist)

"In times of joy, all of us wished we possessed a tail we could wag."

W.H. Auden



A four Generation Pedigree for Kelly of Binheath – the percentages are the blood influence for each generation

50%	25%	12.5%	6.25%
Binheath Pippykin	Tim Of Lindumwold	Dam	Cheerie Be
	Lindumwold Christmas Eve	Glenguard Moonshine	Glenguard Falcon
		Sire	Glenguard Erris Lady
		Glenguard Rambler	Glenguard Mourneside Firecrest
		Dam	Betty Of Deolali
		Glenguard Moonshine	Glenguard Falcon
Dam	Sire	Glenguard Erris Lady	
Kandy Of Binheath	Tim Of Lindumwold	Sire	Glenguard Mourneside Firecrest
	Lindumwold Christmas Eve	Dam	Glenguard Moonshine
		Sire	Glenguard Rambler
		Dam	Glenguard Moonshine
		Sire	Glenguard Mourneside Firecrest
		Dam	Glenguard Moonshine
			Glenguard Falcon
			Glenguard Erris Lady

Each column equals 100% but if an ancestor is in the pedigree more than once, then the percentages are added together, this indicates which ancestors have a strong influence on resulting progeny.

Ancestor Analysis is a table of mainly statistical information about the ancestors of a dog. The table can contain up to the maximum recorded generations of ancestors.

To demonstrate how these features work, let's compare two 'Ancestors':

Kelly of Binheath (born 8 October 1957) and Stephen Dedalus of Andover (USA) born 30 April 1970.

These two Wheatens, along with their ancestors, appear as 'common ancestors' to many dogs in the breed.

The following 'Screen Shots' are only partial listings of Ancestor Analyses:

1. KELLY OF BINHEATH

Kelly Of Binheath - Ancestors Analysis, 10 generations, sorted by blood%									
Inbreeding: 44.7%									
Date Of Birth: 08/10/1957									
814 ancestors found, 66 unique, 64 common, theoretical maximum 2046									
6 generations were full, most distant ancestor found at 10 generations									
Blood%	Name	Sex	Count	Hom%	Inbreed%	First	Where		
50.0%	Binheath Pippykin	M	1	0.0%	31.4%	1	S1		
50.0%	Glenguard Moonshine	F	4	6.3%	29.0%	3	D3:2, S3:2		
50.0%	Glenguard Mourneside Firecrest	M	8	5.5%	3.4%	3	D3, S3, D4, S4, D5:2, S5:2		
50.0%	Kandy Of Binheath	F	1	0.0%	31.4%	1	D1		
50.0%	Lindumwold Christmas Eve	F	2	12.5%	14.5%	2	D2, S2		
50.0%	Tim Of Lindumwold	M	2	12.5%	17.1%	2	D2, S2		
37.5%	Glenguard Erris Lady	F	8	0.0%	4.7%	4	D4:2, S4:2, D5:2, S5:2		
26.6%	IE CH Charlie Tim	M	28	1.0%	0.0%	6	D6:5, S6:5, D7:5, S7:5, D8:4, S8:4		
25.0%	Cheerie Be	F	8	0.0%	0.0%	4	D4, S4, D5, S5, D6:2, S6:2		
25.0%	Glenflesk Captain	M	8	0.0%	0.0%	4	D4, S4, D5, S5, D6:2, S6:2		
25.0%	Glenguard Falcon	M	4	0.0%	5.6%	4	D4:2, S4:2		
25.0%	Glenguard Rambler	M	2	0.0%	7.4%	3	D3, S3		
18.8%	Mick Cosie	M	8	0.0%	3.1%	5	D5:2, S5:2, D6:2, S6:2		
18.8%	Wheaten Lady	F	8	0.0%	0.8%	5	D5:2, S5:2, D6:2, S6:2		
15.6%	IE CH Kingdom Leader	M	20	0.3%	0.0%	6	D6:2, S6:2, D7:5, S7:5, D8, S8, D9:2, S9:2		
14.5%	Molly	F	48	0.2%	0.0%	7	D7:2, S7:2, D8:10, S8:10, D9:6, S9:6, D10:6, S10:6		
14.1%	Fearless Peggy	F	18	0.2%	0.0%	6	D6:2, S6:2, D7:4, S7:4, D8, S8, D9:2, S9:2		
13.3%	Drummer	M	28	0.0%	0.0%	7	D7:5, S7:5, D8:5, S8:5, D9:4, S9:4		
13.3%	Lillies Hope	F	28	0.0%	0.0%	7	D7:5, S7:5, D8:5, S8:5, D9:4, S9:4		
12.5%	Ashen Blonde	F	8	0.0%	0.0%	5	D5, S5, D6, S6, D7:2, S7:2		
12.5%	Betty Of Deolali	F	2	0.0%	11.6%	4	D4, S4		
12.5%	IE CH Cheerful Charlie	M	8	0.0%	3.9%	5	D5, S5, D6, S6, D7:2, S7:2		
12.5%	Golden Gleam	F	8	0.0%	0.0%	5	D5, S5, D6, S6, D7:2, S7:2		
12.5%	Silken Paddy	M	8	0.0%	0.0%	5	D5, S5, D6, S6, D7:2, S7:2		
10.9%	Eagle Girl	F	10	0.1%	0.0%	6	D6:2, S6:2, D7:3, S7:3		
9.8%	Derreen Lass	F	28	0.0%	0.0%	7	D7:2, S7:2, D8:6, S8:6, D9:4, S9:4, D10:2, S10:2		
9.4%	Lambay Heroine	F	10	0.1%	3.1%	6	D6:2, S6:2, D7, S7, D8:2, S8:2		
8.6%	Sally	F	52	0.0%	0.0%	8	D8:2, S8:2, D9:12, S9:12, D10:12, S10:12		
8.6%	Soldier	M	52	0.0%	0.0%	8	D8:2, S8:2, D9:12, S9:12, D10:12, S10:12		
7.8%	Badger	M	20	0.0%	0.0%	7	D7:2, S7:2, D8:5, S8:5, D9, S9, D10:2, S10:2		

Using A Database To Record Pedigrees And Track Health (Cont from P7)

2. US CH STEPHEN DEDALUS OF ANDOVER

US CH Stephen Dedalus Of Andover - Ancestors Analysis, 10 generations, sorted by blood%
Inbreeding: 29.9%

Date Of Birth: 30/04/1970

1808 ancestors found, 114 unique, 83 common, theoretical maximum 2046
8 generations were full, most distant ancestor found at 10 generations

Blood%	Name	Sex	Count	Hom%	Inbreed%	First	Where
50.0%	Andover Antic Of Sunset Hill	F	1	0.0%	24.4%	1	D1
50.0%	Leprecaun's Jackeen Arrah	M	1	0.0%	27.5%	1	S1
36.3%	IE CH Handsome Hallmark Of Holmenocks	F	19	4.3%	11.6%	5	D5:5, S5:2, D6:2, S6:5, D7:2, S7:2, S8
33.6%	IE CH Cheerful Charlie	M	58	3.0%	3.9%	6	D6:5, S6:4, D7:6, S7:7, D8:9, S8:7, D9:3, S9:9, D10:3, S10:5
27.8%	IE CH Charlie Tim	M	112	1.4%	0.0%	7	D7:5, S7:4, D8:12, S8:11, D9:22, S9:19, D10:14, S10:25
26.6%	IE CH Holmenocks Herald	F	6	2.3%	5.3%	4	D4:2, S4, S5:2, D6
26.5%	Silver Wheat	F	32	1.4%	2.7%	6	D6:5, S6:4, D7:4, S7:7, D8:4, S8:4, S9:3, S10
25.0%	Cobalt Bourcro Ballybay	M	1	0.0%	30.0%	2	D2
25.0%	Gads Hill	M	2	3.1%	17.2%	3	D3, S3
25.0%	Gramachree's Minute Man	M	1	0.0%	26.6%	2	S2
25.0%	Holmenocks Hispaniola	F	1	0.0%	27.1%	2	S2
25.0%	Katie O'Cobalt	F	1	0.0%	30.3%	2	D2
23.4%	IE CH Holmenocks Hartigan	M	5	2.3%	16.5%	4	D4:2, S4, S5, S6
23.0%	IE CH Holmenocks Handley	M	10	1.8%	10.5%	4	S4, D5:2, S5, D6:2, S6:2, S7, S8
21.9%	IE CH Melaburn	M	4	1.6%	17.3%	4	D4:2, S4, S5
18.8%	Holmenocks Grand Coup	M	2	1.6%	21.1%	3	D3, S4
17.2%	IE CH Kingdom Leader	M	86	0.6%	0.0%	8	D8:10, S8:9, D9:15, S9:18, D10:17, S10:17
16.6%	IE CH Mourneside MacCoul	M	13	0.5%	11.6%	5	S5:2, D6:2, S6:2, D7:2, S7:2, S8:2, S9
16.4%	Lambay Heroine	F	50	0.0%	3.1%	7	D7:5, S7:4, D8:6, S8:7, D9:9, S9:7, D10:3, S10:9
15.0%	Glenguard Mourneside Firecrest	M	24	0.7%	3.4%	6	D6:3, S6, D7:3, S7:4, D8:2, S8:3, D9:2, S9:4, S10:2
14.7%	Wheatielocks	F	40	0.1%	0.8%	7	D7:5, S7:4, D8:4, S8:8, D9:6, S9:6, D10:2, S10:5
13.5%	Holmenocks Hazel	F	12	0.2%	6.2%	5	S5, D6:2, S6:2, D7:2, S7:2, S8:2, S9
13.3%	Holmenocks Handful	M	6	0.0%	0.0%	5	D5:2, S5, S6:2, D7
13.2%	Silver Leader	M	31	0.0%	0.0%	7	D7:5, S7:4, D8:4, S8:7, D9:4, S9:4, S10:3
12.6%	IE CH Holmenocks Halo	F	17	0.3%	5.6%	6	D6:2, S6:2, D7:2, S7:3, D8:2, S8:3, S9:2, S10
12.5%	Crooc Crespina	F	1	0.0%	17.9%	3	D3
12.5%	Holmenocks Gramachree	F	1	0.0%	24.1%	3	S3
12.5%	Holmenocks Hackney	M	1	0.0%	25.6%	3	S3
12.5%	Holmenocks Hallmark	F	1	0.0%	23.6%	3	D3
12.5%	Holmenocks Henrietta	F	1	0.0%	26.5%	3	S3



The following definitions apply to the screen shots above:

Inbreeding - how inbred at 10 generations

Ancestors found - (see COI for explanation).

Blood% - the proportion of genes that have been inherited by the dog in question from the given ancestor.

Name - the ancestor's name, including title.

Sex - a single letter giving the sex of this ancestor. (M = male & F = female)

Count - the number of times the ancestor occurred in the given number of generations.

Hom% - the probability that both genes at any given locus in the dog in question have both been inherited from the given ancestor. Note that the sum of all values in the Hom% column can exceed the coefficient of inbreeding of the dog in question, because some occurrences of common ancestors may be counted multiple times by summing in this way.

Inbreed% - the coefficient of inbreeding of the ancestor, computed using the system default #generations for inbreeding computations.

First - the closest generation in which this ancestor occurred.

Where - the number of times the given ancestor was found at each generation on both sides of the pedigree. e.g. S5:3, D4 means that it occurred 3 times in the 5th generation in the sire side, and once in the 4th generation on the dam side.

Kelly of Binheath (1957) – the Ancestor Analysis of this dog shows that he is highly inbred with a Co-efficient of Inbreeding (COI) of 44.7%. This dog is the result of a brother/sister mating. The list shows that Kelly has 6 dogs which have an influence equal to that of a parent (instead of 2) because 6 dogs each have a total ancestral influence of 50% on Kelly.

Glenguard Mourneside Firecrest
(50% D.O.B.1942)
Glenguard Erris Lady
(37.5% D.O.B. 1941)
Charlie Tim
(26.6% D.O.B. 1934)
Cheerie B
(25.0% D.O.B. 1940)
Wheaten Lady
(18.8% D.O.B. 1938)
(Screen shot above).

To illustrate how important dogs from the past may be in influencing a pedigree here are a few of Kelly's ancestors, with their % blood influence and their year of birth (taken from the screen shot on previous page).

Glenguard Mourneside Firecrest is in 99.9% of Wheatens born worldwide, as are his ancestors; the foundation dogs of our Breed. Many of these dogs have a great influence on Kelly's phenotype and genotype. (See Glossary)

Stephen Dedalus of Andover (1970) – the Ancestor Analysis shows that this dog is 29.9% inbred. There are only two dogs with a 50% influence on Stephen's Ancestor Analysis which are his parents.

However, illustrating once more how dogs from the past may be influencing a pedigree here are a few of Stephen's ancestors, with their % blood influence and their year of birth, as detailed in the screen shot above.

Handsome Hallmark of Holmenocks
(36.3% D.O.B. 1943)
Cheerful Charlie
(33.6% D.O.B. 1939)
Charlie Tim
(27.8% D.O.B. 1934)
Glenguard Mourneside Firecrest
(15% D.O.B. 1942)
Silver Wheat
(26.5% D.O.B unknown, but first litter registered 1943)
(Screen shot above)

Again, many foundation dogs have a large influence on Stephen's phenotype and genotype.



Using A Database To Record Pedigrees And Track Health (Cont from P8)

3. Coefficient of Inbreeding Table (COI)

Name:	Kelly Of Binheath			
Max generations:	8	16	24	32
Inbreeding Coefficient(F):	44.5%	44.7%	44.7%	44.7%
Rate of Inbreeding:	92.9%	96.4%	97.6%	98.2%
Loss of Heterozygosity:	7.1%	3.6%	2.4%	1.8%
Generations found:	8	12	12	12
Full generations found:	6	6	6	6
Theoretical max. ancestors:	510	131070	33554430	8589934590
Total ancestors found:	450	902	902	902
Unique ancestors:	62	66	66	66
Common ancestors:	60	64	64	64
Duplicate ancestors:	388	836	836	836

4.

Name:	Stephen Dedalus Of Andover			
Full Title:	US CH			
Max generations:	8	16	24	32
Inbreeding Coefficient(F):	28.1%	30.2%	30.2%	30.2%
Rate of Inbreeding:	96.0%	97.8%	98.5%	98.9%
Loss of Heterozygosity:	4.0%	2.2%	1.5%	1.1%
Generations found:	8	16	18	18
Full generations found:	8	8	8	8
Theoretical max. ancestors:	510	131070	33554430	8589934590
Total ancestors found:	510	5288	5314	5314
Unique ancestors:	76	120	120	120
Common ancestors:	49	91	91	91
Duplicate ancestors:	434	5168	5194	5194

This Table provides an inbreeding analysis which shows inbreeding coefficients and related information calculated using varying numbers of ancestor generations.

Inbreeding Coefficient - a percentage value which can be calculated given a dog's ancestors. It is a complex calculation. It expresses the probability that the same gene has been inherited from both the dam and sire. You can select the number of generations of ancestors that are used in the calculation.

Rate of Inbreeding - a related value to the inbreeding coefficient itself is the rate of inbreeding. This is the proportion of heterozygosity remaining per generation. e.g. consider a dog that has a coefficient of inbreeding of 12.5% when calculated to 8 generations. The amount of heterozygosity remaining is $100 - 12.5 = 87.5\%$ after 8 generations. This is equivalent to a rate of inbreeding of 98.34471% per generation (because 0.9834471 multiplied 8 times equals 0.875). A related value is the loss of heterozygosity. This is simply 100 minus the rate of inbreeding.

Loss of heterozygosity - the measure of how much heterozygosity is lost, per generation.

Generations found - the number of generations of the deepest ancestor found.

Full Generations found - the number of generations that were full i.e. no gaps in the pedigree.

Theoretical maximum ancestors - the theoretical number of ancestors that could be found for the depth of ancestors selected.

Total Ancestors found - the total number of ancestors found, with duplicates counted as many times as they occur.

Unique Ancestors - the number of unique ancestors found.

Common Ancestors - the number of common ancestors found (i.e. present on both sides of the pedigree).

Duplicate Ancestors - the number of duplicate ancestors found - i.e. the number of ancestors that were present more than once.

In conclusion:

On average, today's pedigrees generally show 'full generations found' at 12-14 generations.

This figure is normal and possibly why finding new genes is so difficult for our breed. I have a full database of ancestors so this is not the reason for the lack of numbers after that point: it is probably

because compared to many of the other pedigree breeds; the official history of the SCWT is relatively short. The recording of pedigrees really only started in the 1930s.

Although I have chosen two dogs from the past to illustrate how a database can be used to

examine the influence which ancestors in a pedigree may have, it is important to remember that even when looking at some present day dogs, the Ancestor Analysis can show a high percentage of blood influence from ancestors born more than 30 years previously.



Using A Database To Record Pedigrees And Track Health (Cont from P9)

Points to consider:

A low co-efficient is not a guarantee of a 'safe mating'.

Personal knowledge of the physical attributes and more importantly the health status of the ancestors within the pedigrees are of the utmost importance.

Although COI and percentage of blood are useful tools, they are only as good as the background information you have on the ancestors of the pedigree in question.

There comes a point at which a highly inbred dog can cause problems in a breeding programme. Geneticists have commented that a rate below 5% per generation is probably a safe level although only a rough guide.

Your perspective on any given pedigree can change at any time as more information is discovered about the dog or its ancestors.

It is the most recent dog in the pedigree known to have been affected and/or the parent of an affected dog, which generally gives the risk to the pedigree, any prior to that just shows how the disease travelled down the ancestry line. The exception to this rule is polygenic inheritance. (See Glossary)

Every breeding carries a risk and what is considered to be one person's risk may not be another's. This does not make either of them right or wrong.

Inbreeding does not actually cause any more genetic mutations than may occur randomly in any population. However, if a genetic mutation occurs within a population, inbreeding will tend to promote that mutation to become more widely distributed. Out-crossing is considered to be safer, but physical type can be lost

RD is thought to be recessive but the mode of inheritance is not known for Protein Losing Diseases. It is thought that there could also be an environmental trigger; this 'trigger' may be multifaceted.

A DNA test is now available which may help in making breeding decisions with regard to PLN. It is called the PLN-Associated Variant Gene Test. The research is ongoing and the hope is that more accurate information will show how the genes are inherited and will better assist breeding decisions.

This is just a glimpse of how, with the use of a database, our breed and its health can be monitored and breeding decisions looked at in depth. Nothing is perfect and health can never be 100% guaranteed in any breed, if only it could.....

San Jeffries

GLOSSARY

Percentage of Blood - A useful aid to inbreeding co-efficient is the term 'percentage of blood' which seeks to measure the genetic composition of a certain ancestor to the dog in question. (Malcolm Willis, Geneticist)

Co-efficient of inbreeding (COI) During the Seminar, Geneticist Tom Lewis stated that, "10 generations are more secure because generally at that level the influence of the early ancestors is 'set', however far back in the pedigree they might have been.

For most numerically small breeds there will be a higher COI if you go back 10 gens and really assess the influence of dogs used commonly in the earlier ancestry, this may not be apparent if you only use 8 generations".

Heritability - The transmission, or passing on, of features controlled by genes from both parents to their offspring. The proportion of phenotypic variation that is due to genetic



variation.

Homozygous - An individual which has identical alleles for a particular characteristic. Recessive characteristics will only show if an individual is homozygous for that characteristic.

Heterozygous - An individual that has two different alleles of a gene for a particular characteristic. If one allele is recessive and the other dominant, then the effect caused by the dominant allele will be apparent.

Inbreeding - the breeding of individuals more closely related than average in the population.

Genetic - Describes something to do with genes and inheritance.

Genotype - The genes found in the cells on an individual. The genetic makeup of an individual will influence the appearance of phenotype of the individual.

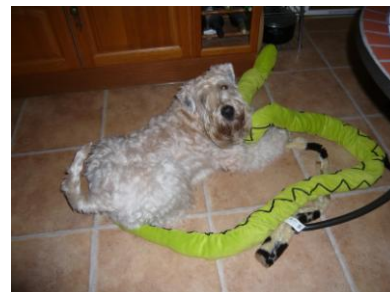
Parent - Sire and/or Dam (Father and Mother)

Phenotype - The phenotype is the physical expression of an individual's genotype. Observable, or measurable, properties of an organism, e.g. hip score, weight.

Polygenic - The kind of inheritance in which a trait is produced from the cumulative effects of many genes.

"Just give me a comfortable couch, a dog, a good book, and a woman. Then if you can get the dog to go somewhere and read the book, I might have a little fun."

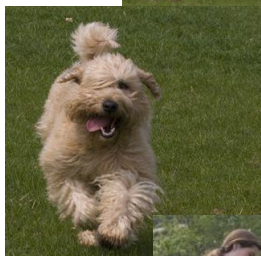
Groucho Marx





Indi
Chloeanco Solar
Infinity

1.11.06 - 5.07.13



Leptospirosis – A Case Study

An introduction by Kate Watkins: *This is a truly harrowing story which must have been very painful for Lynn, Ian and Zoe to write; re-living those dreadful days when Indi was so ill. I couldn't help but visualize how I would respond if one of my dogs was in a similar situation – would I be able to make sure my dog received appropriate treatment? Vets are the professionals and we naturally place our trust in their expertise but vets, like any of us, can and do make mistakes sometimes. As the story illustrates, in such a serious situation when the stakes are so high, you need to listen to that voice in your head and ask questions; you are perfectly entitled to ask for another opinion. Conventional vaccination for Leptospirosis would not have made a difference to Indi, however, if the vet had given emergency antibiotic immediately he was notified of the rat bite, Indi may have had a fighting chance. Dogs are brilliant at hiding how unwell they are; it is an instinctive survival mechanism to protect them from attracting the attention of predators. With your personal knowledge of what is normal for your dog, follow your own instincts and make sure your vet takes your opinion seriously into account.*

In the early evening of the 22nd June 2013, my daughter, Zoe, was out walking her 6yr 8m old male, Indi. As he explored the fields and hedgerows near where she lives, investigating every interesting scent, there were the sounds of a scuffle and Zoe realised he had come across a large rat. As she ran towards him, she could see that he was being bitten on the muzzle by the rat, which eventually made off into the undergrowth. Zoe took him back home and cleaned the wound with 'Hibiscrub' and then called our veterinary surgery (which had already closed for the evening) for further advice, stressing that Indi had not been vaccinated against Leptospirosis.

When she received a call back from the nurse on duty she was told that the Vet had said all that she needed to do was to keep the area of the puncture wounds clean with 'Hibiscrub'. Although this was not what she had expected, she accepted the advice as coming from a professional whose judgement she had no previous reason to doubt.

Zoe's vigilance over the following days was all that one would expect from an experienced animal care professional; working as she does, in an animal rescue centre. During the evening of 27th June, she noticed Indi was quieter than usual and showing some signs of muscle stiffness and general abdominal discomfort, however, he had been to his agility class the previous day and so there was every chance he had simply pulled a muscle.

During the early hours of 28th June, Indi vomited and as soon as the surgery telephone line was open in the morning, an appointment was made with the vet.

At the surgery Zoe described the dog's symptoms to the vet, including the abdominal pain he seemed to be displaying and reiterated her concerns regarding the rat bite and the fact that the dog had not been vaccinated

against Leptospirosis, however, once again it seemed to Zoe that the vet was being dismissive. He commented on more than one occasion both to Zoe and later in a phone call to me, that Leptospirosis was spread by rat's urine not through a bite.

When he examined the dog, he found that his temperature was raised and administered an injection of Baytril. The vet said that blood tests could be done but it probably wasn't really necessary.

Zoe could not help but feel that her concerns were not being addressed and she insisted that the tests were justified and asked that they be carried out, if only to find out more about what was wrong with Indi.

She particularly requested that tests for Leptospirosis should be carried out. Samples were sent off to an external laboratory but these would take 24 hours to complete and so the vet said he would also run them through the machine at the practice.

Later that morning Zoe had a phone call to collect some medication for Indi from the surgery. When Zoe spoke with the vet he told her that Indi had a liver problem. Baytril tablets and Protexin Denamarin were prescribed and the vet advised feeding the dog some soup with chicken or white fish. He mentioned the possibility of scanning the following week to see if there were tumours in the liver.

Zoe was given a copy of the blood test results and felt they showed worryingly abnormal values in many key areas, in particular the platelet count which was given as 19 with the normal range being between 120 and 600. The vet told Zoe (and annotated the results sheet accordingly) that he thought there was a malfunction in the machine because if it were really that low the dog would be seriously ill, which, he said, was not the case.

Zoe followed the vet's instructions

for administering the tablets. However, later that evening after surgery had closed, the dog vomited again. Zoe rang the surgery and received an automated message directing her to an out-of-hours referral service. (In the past out-of-hours care was offered by our practice and this was the first we knew of a change to this system)

Zoe described the issue to the receptionist at the referral service and was asked if the dog was showing signs of jaundice (which he wasn't at that time) and after discussion, Zoe was told that she could take the dog in to their clinic if she wished or, as the dog was now settled and resting, wait until her own vet was available in the morning.

Zoe was extremely anxious about the situation, she knew that treatment at out-of-hours referral centres can vary hugely, depending on which vet happens to be on duty, she also felt that it was better that he see our vet who knew all the history, rather than a complete stranger and opted to wait until the surgery opened.

On the morning of Saturday 29th, as soon as our own practice phone line was manned, Zoe rang and insisted that she needed to see the vet as a matter of urgency. By the time she got to the surgery the dog had begun to show signs of jaundice.

In the light of his obviously worsening condition, Zoe again raised her concerns about the possibility of a Leptospirosis infection but there was no change in the vet's opinion, however, he agreed that Indi was dehydrated and needed to go on a drip. He suggested that Zoe took him to the out-of-hours referral centre for treatment.

Zoe was nonplussed and asked why he could not be treated there and then but the vet said that he could only put him on a drip for 4 hours whilst he was doing the morning clinic and after that he would have



Leptospirosis – A Case Study (Cont)

to be moved to the out-of-hours clinic as there was going to be no one around to care for him.

Dumbfounded by the situation she now found herself in, Zoe felt it was certainly not in the best interest of the dog to start treatment there and then move him again and so, reluctantly opted to take him to the out-of-hours centre.

As soon as Indi was admitted to the referral vets, Zoe explained the history of his illness. Fortunately, she had the copy of the blood test results from the previous day with her, as the report from the external lab had not yet been received.

Immediately, the referral centre vet said she suspected it was Leptospirosis and began 'presumptive' treatment.

Indi was given appropriate medication and put on a drip to try to stabilise his condition. When the results from the external lab were faxed through, they confirmed that he was already in organ failure although sadly, Zoe's request made to our vet the previous day for Leptospirosis tests appeared to have not been passed on to the external laboratory.

The vets at the referral centre continued their presumptive Leptospirosis treatment.

The following day, 30th June, we arranged for Indi's transfer to the Royal Veterinary College Queen Mother Hospital, for more intensive specialist care such as blood transfusions and dialysis, which the referral centre was not able to provide.

We benefitted greatly from Dr Karin Allenspach's knowledge of the situation from the outset and whilst not being directly involved with his day to day care, she visited Indi and was kept updated with his condition.

I must also acknowledge the amazing support of Dr Jean Dodds DVM throughout Indi's illness. As always, she was a source of inspiration and provider of information.

At the Royal Veterinary College the 'presumptive' Leptospirosis treatment was continued, whilst any other potential causes of Indi's illness were ruled out. Every attempt was made by the staff to ensure his recovery and towards the end of the week, following blood transfusions; his kidneys began to regain some function. However, in spite of their best

efforts, too much damage had already been done by the bacteria and he was put to sleep on 5th July to save further suffering.

It has always been our way to seek for as many answers as we can out of every bad situation to better inform ourselves (and hopefully for others to benefit from our experiences). With this in mind we asked for a complete and detailed post mortem, arranged by Dr Allenspach, not only to establish that there were no underlying factors which might have contributed to Indi's death but also to establish the type of Leptospirosis which Indi had contracted. (Please see Leptospirosis facts which follow this article for further information).

Both the vets at the referral centre and at the RVC had commented on how aggressive the Leptospirosis appeared to be (the timescale of the progression of the disease from the first *noticeable* symptoms on the 28th June to organ failure was around 48 hours and Indi had been a fit and healthy dog in the prime of life prior to this)

The Post Mortem revealed that Indi tested positive for three different Leptospirosis serovars, the most significant being L.Javenica, a relatively newly-identified serovar from the Far East, China and New Zealand, for which there is simply no vaccination available anywhere in the world – not even for humans! Indi could have received conventional vaccine available in the UK every day of his life and it would have afforded him no protection against this strain whatsoever.

His only hope had been to receive prompt and appropriate veterinary treatment with antibiotics following the rat bite. By the time he was admitted to the Vet Referral Centre, it was almost certainly too late.

Concern and anxiety did not end with Indi's loss; Zoe was left at great personal risk of developing the disease herself, having nursed Indi whilst he was incubating the disease. When she became ill shortly afterwards with flu-like symptoms we had to take her to hospital in the middle of the night fearful that she might have contracted it. Leptospirosis is known as Weil's disease when it occurs in humans and L.Javenica has already claimed its first human victim. Thankfully Zoe did not develop the disease.

Nothing can ever replace the loss of a lovely dog but as well as the emotional cost, we were also left

with the financial one. The bills incurred for Indi during this illness were over £5,800.

Indi was insured for a maximum of £4000, however, in spite of an appeal by the team at the RVC, the insurance company declined any payment; as he was not conventionally vaccinated against Leptospirosis – even though no vaccination could have protected him from this disease.

What have we learned from all this?

That probably as a result of climate change; increased accessibility via things such as the channel tunnel; relaxation of the restrictions of the transport of animals; greater movement of population or goods between countries or any other contributing factor, rats in Berkshire or any other part of the country could be carrying Leptospirosis serovars for which there is no potential immunity through vaccination.

We would insist on precautionary antibiotics being given as soon as possible if there was any close encounter with rats or other rodents.

However, it is important to remember that any mammal can carry Leptospirosis (the other major source of infection in this country is cattle).

There are no guarantees that early antibiotic treatment would have saved Indi but he would have had a better chance of recovery.

We still treat the Leptospirosis vaccination with extreme caution: it would not have protected him and it is known to carry risks of its own (See accompanying Leptospirosis facts) I have not had my dogs vaccinated.

Whether or not to vaccinate has to remain a decision for each individual owner but at least be informed about *all* aspects of vaccination.

Following possible exposure to Leptospirosis we would request the vet to embark on the process of PCR (Real-time polymerase chain reaction) tests; to detect the development of Leptospirosis as early as possible.

Detection of antibodies using the microscopic agglutination test (MAT) has been the most common diagnostic method for Leptospirosis, ".... however the PCR is considered as sensitive and

specific as culture but significantly faster (hours) and more reliable.

The diagnostic advantage of PCR over serology occurs primarily during the very early stages of the infection prior to the development of antibodies in most dogs and for the detection of urinary shedding in sick and healthy animals. PCR will be positive on blood very early in infection usually prior to seroconversion. Urine will become positive 7–14 days after infection at which time Leptospirae may or may not be detected in the blood."

Ref: <http://tinyurl.com/ovqg9u2> (from the Idexx laboratory website)

We are left wondering how many dogs with the symptoms which Indi had and were thought by the vet to be liver problems go on to die and in the absence of a detailed Post Mortem, are labeled as kidney or liver failure, when the real cause may have been Leptospirosis!

Finally, we have learned that lightning *can* strike twice – although this time in a different county. Indi was our second experience of Leptospirosis. Back in early 2005 Indi's grandmother, Jasmine, aged 8, contracted the disease by ingesting contaminated water.

She almost died and her internal organs were also failing by the time we got the diagnosis. She received appropriate treatment at the same veterinary practice (different vet!) and survived. The other dogs in the household at the time received protective treatment and none of them went on to develop the disease.

Jasmine lived a long and healthy life and died in October 2012 at almost 16 years of age.

We were so lucky that time.

Lynn Carter

(On behalf of Indi – our joyful boy)

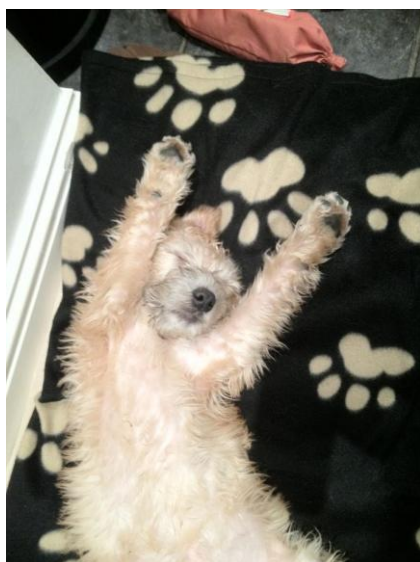
<http://tinyurl.com/pju8c2q>

<http://tinyurl.com/psywnb2>



Flea Facts

- Although there are 2,000 species and subspecies of flea, most problems of flea infestations in dogs are due to cat fleas.
- The female flea can lay 2,000 eggs in her lifetime.
- An adult flea can survive without a meal of blood for more than 100 days.
- A female flea can consume 15 times her body weight in blood in a day.
- Flea infestation can mean that a dog may become anaemic, may develop tapeworm, may develop pruritis (intense itching) or may become allergic to the flea saliva and develop dermatitis.
- Once an adult flea emerges from its larval stage it needs to eat a blood meal within 7 days or it will die.



“Perhaps one central reason for loving dogs is that they take us away from this obsession with ourselves. When our thoughts start to go in circles, and we seem unable to break away, wondering what horrible event the future holds for us, the dog opens a window into the delight of the moment.”

Jeffrey Moussaieff Masson



Dealing With An Irritating Problem

It seems there has been a countrywide problem with fleas this year; no doubt influenced by mild temperatures and all the wet weather at the beginning of the year

I suspect I am not alone in my dislike of the use of strong veterinary chemical products except as a very last resort and this year found me searching the internet for alternatives.

We don't generally endorse specific products in the pages of the Newsletter but I came across Pioneer Herbal Products during my search and as they were also based geographically close to where I live, I rang the proprietor, David Llewellyn MSc and had several extremely interesting conversations about their product range.

David kindly agreed to put together a short piece for our Newsletter on the use of Neem oil, which is reproduced below. I am sure you will find it as interesting as I did.

I have subsequently used several of his products with good results.

With his scientific background and having spent many years of his life abroad, David has researched the ingredients in his products extensively and still personally carries out all the processes involved in production.

I hope you will find his article interesting.

THE USE OF NEEM OIL IN ANIMAL CARE

Indian and Chinese records show that plants and plant based preparations have been used in both human and animal care applications for at least 2000 years.

Neem, an evergreen tree found in the Indo-Malaysian region, has been the subject of many scientific studies to explore its botanical, medicinal, industrial and agricultural uses.

In the Indian Ayurvedic system, six parts of the tree, ie; leaves, bark, fruit, flower, root and seed are used extensively across a very broad range of applications.

The seed is particularly useful for its oil. Extracts of various parts of the Neem tree have proven medicinal properties which include: antifungal, antidiabetic, antibacterial, antiviral and antifertility.

Neem's use as an insecticide and pesticide is also well documented: Indeed, Neem has been authorized for use in insecticide and pesticide products by the Food and Drug Administration in the USA since 1948.

When we started our herbal soap and oils business in 1986 in the Middle East, Neem Oil was commonly used oil against the mosquito, sand flea, various families of midge, aphids and the spores that cause fungal growth on intensive lettuce and salad crop products grown under huge polythene tunnels with forced air cooling.

Our work in those days was mainly on human skin problems, particularly athlete's foot, fungal nail problems and diabetic ulcer applications. We were Podiatrists. The only treatments available to us there were all commercial chemical based. We found that Neem was extremely useful in these areas and developed it for use in our herbal liquid and bar soaps and balms for human skin.

On our return to the UK we became involved in animal care, particularly fungal infections of horses feet and fungal problems in dogs.

Neem works in a unique way with regard to insects and parasites. It is not a "knock down" application. You cannot expect it to drop the insect immediately upon contact.

Most chemical sprays have an immediate effect on the breathing, and the result is that the insect can die in flight with heavily congested lungs.

But of course, more insects come along!

What Neem does is to change neural activity in the brain. The result is that the insect gets a message that it does not need to eat - so the insect starves.



Dealing With An Irritating Problem (Cont from P13)

(Cont on P14)

Neem also has a sterilizing and abortive effect on the pregnant female. Larvae produced die off. Fungal spores do not feed and therefore do not multiply and ultimately die away.

So Neem has the effect of killing not only the existing parasite but any larvae that may be on the site.

As far as dogs are concerned, the veterinary use of Neem preparations have been successful against demodectic mange of dogs, caused by a mite (*Cheyletiella*) and a similar preparation containing Neem has been successful against canine dermatitis caused by *Demodex canis* and *Sarcoptes* spp.

Neem certainly has anti-lice and anti-dandruff effects. It is also very useful against ticks and fleas.

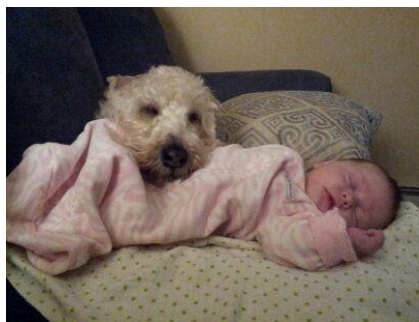
Neem is a strong oil and must be used with care. We blend our Neem (which we import directly from India) with other essential oils. Over the past five years or so this blend has proven to be effective in keeping dogs, kennels, blankets and clothing fresh, with a whistle clean skin and coat that, particularly in the darker coloured dogs, tends to improve the lustre.

Neem has a rather pungent smell – which you either can tolerate or which you will hate! In a blend with other oils this is much less pronounced and, as our blend includes Lavender and Citrus, the calming effect is maintained.

An extremely useful and effective oil, Neem, blended with other oils for a cumulative effect is well worth looking at if your dog has problems with mange, minor wounds, scrapes and rashes. And its coat will have a superb shampoo at the same time!

David Llewellyn

David Llewellyn MSc
Pioneer Herbal
Herbal Ointments, Soaps and Balms
Equine & Canine Herbal Soap and Balms
Pure Essential Oils, Massage Oils, Oil Burners
pioneer2006@btinternet.com
www.pioneerherbalproducts.co.uk
www.pioneerpersonalcare.com
International: +00 44 1793 870092
UK Mobile: 07789 992010



Honey For Allergies



You may have heard about the use of honey

for human allergy sufferers but had you also considered how your dog might benefit if he or she seems to be constantly chewing and nibbling at its legs and feet, or perhaps suffers from ear infections at a particular time of the year.

It could be that symptoms like this may point to your dog having an allergic reaction to something such as pollen from plants or trees.

There is good evidence about the success of using raw, locally produced honey to help your dog to become less sensitive to these types of allergens.

The honey has to be local and unrefined because the philosophy is that the bees visit local plants to collect the nectar that they use to make honey. As they collect the nectar, they also collect very small amounts of pollen from the plants; these are then also incorporated into the production of the honey.

The idea is that by feeding a little of this honey containing those minute pollens, over time, it will help the dog to develop an immunity to the things which had previously triggered an allergic reaction.

The amount of honey needed will vary according to the size of the dog, from about one teaspoon a week for a small dog to a tablespoon a week for a large one. If you suspect a seasonal allergen may be causing problems for your dog it is best to start the honey treatment 3-4 weeks before symptoms usually appear.

There are additional benefits that your dog may enjoy as a result of eating raw, local honey. Some owners have reported improvements in arthritic conditions, better digestion and increased energy levels as well as a reduction in the symptoms of stress.

Honey is also a good source of vitamins A, B-complex, C, D, E and K and contains minerals such as iron, manganese, calcium and potassium.
<http://tinyurl.com/yra5sw>



"I once heard a woman who had lost her dog say that she felt as though a color were suddenly missing from her world: the dog had introduced to her field of vision some previously unavailable hue and without a dog, that color was gone. That seemed to capture the experience of loving a dog with eminent simplicity. I'd amend it only slightly and say that if we are open to what they have to give, dogs can introduce us to several colors with names like wildness, nurturance, trust and joy."

Carolyn Knapp



Seaweed Alert

On Saturday July 13 2013, the Daily Telegraph carried the following interesting warning. It is well worth repeating:

Dog Owners' seaweed alert

Dog owners have been told to stop letting their pets eat seaweed following a spate of animal deaths. About one third of dogs who ingest dry seaweed die when it expands in their stomachs.

Glen Watson, a vet from East Lothian, said that in the heat seaweed shrinks to a fraction of its size, but expands in the digestive system after absorbing liquid and releases poisonous acids into the body."



Genetic Diversity In The Soft-Coated Wheaten Terrier

"Now this is the Law of the Jungle -- as old and as true as the sky;

And the Wolf that shall keep it may prosper, but the Wolf that shall break it must die.

As the creeper that girdles the tree-trunk the Law runneth forward and back

For the strength of the Pack is the Wolf, and the strength of the Wolf is the Pack."

Rudyard Kipling

A Small Boast

In just over a year from launch on YouTube in September 2012, the grooming videos have attracted just over 42,000 views from wheaten owners in 90 different countries.

The most popular viewing is the Puppy trim at 8,798 views, followed by the Adult trim at 8,412, the Show trim at 8,278 and trimming with clippers at 8,121.

The top viewing countries are UK, USA, Canada, Germany, the Netherlands and Sweden. Feedback from subscribers and viewers has been very positive.

WHI feel that these resources have been extremely useful to many Wheaten owners.

<http://www.wheatenhealthinitiative.com/Pages/Grooming.html>



It may come as no surprise for some of our readers that I have had an interest in the genealogy of the Soft Coated Wheaten for many years.

Thanks to the sharing of information provided by many friends and especially the tireless efforts of Sandra Jeffries, who continues to create an invaluable asset in the form of her own database of our breed, I have been known to create charts that can at best be described as resembling "maps of the London Underground railway network" as I try to visually display the ancestral background of our breed.

It is generally well known that the Soft-Coated Wheaten has historically a very small gene pool compared to many other breeds of dogs.

For this reason it is important that, if and when we make a decision to breed from our dogs and hopefully are also concerned about the future health and well-being of our breed, we should look very carefully at the pedigree of our dogs to see which genes we may be doubling up on and therefore potentially increasing the risk of harmful genetic mutations occurring.

The importance of this was highlighted at our last Wheaten Health Initiative Seminar by Dr Tom Lewis of the Animal Health Trust and I had many examples of my 'underground' maps on display to illustrate his point.

Some of you may also be aware of the term "matador sires" where certain male dogs are used extensively for breeding purposes within a breed. This too can potentially have a detrimental effect on the health and well-being of a breed as it can greatly reduce the genetic diversity of a breed in terms of future breeding stock.

Although this may arise as a result of decisions made by only a handful of breeders, the resulting lack of genetic diversity may impact negatively on the breed as a whole.

It has become apparent from current breeding records that this is happening in our breed and with this in mind, I decided about eighteen months ago to undertake an analysis of our current breeding stock.

I took 2005 as a starting point (bearing in mind the number of years that a bitch may be used for breeding) in order to get an idea of the current genetic diversity and general potential ancestral influence within our breed.

Having identified which dogs and bitches have been used for breeding purposes since then, I created a chart of the breedings that have taken place annually and then decided to create another chart, linking each dog used, to their sires and dams along the lines of a family tree.

As this work progressed, it gradually became apparent that **all** of the dogs and bitches that have been used for breeding purposes in this country from 2005 to 2011 are founded on a restricted gene pool of only thirty sires.

As it is a generally accepted fact that our breed stems from around 12 dogs in the 1930's we can also see that the 30 sires I have referred to will have genetic connections; as indeed, will the dams!

There is a certain inevitability of this happening when one considers the number of people breeding Soft-Coated Wheatens in this country and the seemingly increasing demand for Wheaten Terrier puppies. Nevertheless, I feel it is a point worth noting if we are concerned about the future health of our breed and maintaining its genetic diversity.

The tendency perhaps, of new owners to acquire their puppy from someone who may care less about the future of the puppy they have bred than the money they may make from the sale, contributes to the current situation.



In addition buying from a breeder who is also lacking in their own depth of knowledge and understanding, means that the 'mentoring' system of old; where knowledgeable breeders are involved in the education of their puppy owners, over-seeing and advising in the selection of a suitable mate, care through the gestation period, advice at the time of birth and throughout the raising and socialisation of the litter, could also be much less common these days.

One of the issues raised by Tom Lewis during his presentation concerned the current use of one particular SCWT male. He suggested it was possible that within approximately three years every SCWT being bred from in this country might have this dog as either sire or grandsire, restricting our gene pool still further. Food for thought!

Ian Carter

Further reading:
<http://tinyurl.com/pz3tppt>

"The conclusion I have reached is that, above all, dogs are witnesses. They are allowed access to our most private moments. They are there when we think we are alone. Think of what they could tell us. They sit on the laps of presidents. They see acts of love and violence, quarrels and feuds, and the secret play of children. If they could tell us everything they have seen, all of the gaps of our lives would stitch themselves together."

Carolyn Parkhurst

"Dogs do speak, but only to those who know how to listen."

Orhan Pamuk



Glacial Healing Clay

We are indebted to Wheaten owner, Sally Pattie, for sharing this story with our readership.

Sally has also included some general information about Glacial Healing Clay, which she has used with some astonishing results. Sally owns a 'wonderful 13 year old SCWT called Crummies' and what follows is her account of how she used the Healing Clay to great effect.

My own story is that my Wheaten, called Crummie for short! has been suffering from various malignant lumps for over a year now.

I treat him daily with a homeopathic remedy that takes 45 mins to administer. He has been doing really, really well but I did notice that where he had had a lump removed some time ago (**not a malignant one**) it had begun to grow into a small black ball.

It was during this time that I was introduced to the use of Glacial Healing Clay. One day I decided to try the clay on his lump. I made a paste of it and put enough on to cover the growing black sphere and did this daily.

After about a week I realised that the lump had stopped growing. A few days later I realised that the lump was detaching from Crummie's skin. I coated the lump and his skin one more time as I didn't think I should just pull it off and by the next day the lump had fallen off by itself. The site is now totally clean and he just has a small black scar.

My homeopathic vet is amazed and we are set to have a chat to see how else we can use the clay.

Sally Pattie

The properties of natural healing glacial clay:

- stimulates circulation
- reduces pain and swelling by drawing the heat to the surface
- promotes and aids in the animal's natural healing process
- will not cause harm if licked or swallowed in small amounts
- has no added ingredients
- consists of pure mineral and trace minerals
- is also known as Glacial Marine Clay

- is used in the treatment of pets, including horses, the clay has no natural equal
- helps heal and prevent insect bites
- is excellent for cuts, scrapes, general itches, sunburn, saddle blisters and replenishing skin
- provides relief for sore muscles
- is purifying, calming
- improves breath
- keeps flies off wounds.
- "sucks out" impurities and foreign bodies towards the outside, allowing tissues to heal
- Absorbent
- Antiseptic
- Haemostatic (stops bleeding)
- Anti-infection
- Anti-inflammatory
- Anti-mycotic (fungal infections like ringworm, etc.)
- Anti-bacterial (bacteria cannot live in this clay)
- Anti-Parasitic

When it is applied it feels good – as it does to humans. It has a cooling effect on hot, inflamed, infected tissue. The clay is also a natural analgesic so it alleviates a lot of pain.

Preparing a poultice to heal a wound

1. Preparing the clay paste:

Put the desired quantity of Healing Clay into a ceramic, glass, wooden or plastic container. Slowly add water to the clay: this is usually a one to one ratio – one tablespoon of clay to one tablespoon of water. A little more or less here or there is fine, as long as the result is a smooth paste.

Once you have added the water wait a few minutes for the clay to absorb it.

You can use a wooden spoon to mix it into a smooth paste if you wish, but do not ever use a metal spoon or recipient to mix your clay: the clay carries an ionic charge, which is the very science behind why it is such an effective healer. Metal disrupts this charge and renders the

clay ineffective.

2. Applying the poultice:

Once you have gained the trust of the animal, spread a thick layer onto the wound; the thicker the amount of clay you apply, the more effective it becomes.

Once you have applied the clay to the wound, dip a bandage into water and then wrap it, whilst moist, over the affected area that is covered in clay.

You can even dip the bandage into water that contains some clay.

Once the clay is dry it is no longer active. For this reason it is best to keep it in place and moist for as long as possible.

Cling film can be used as a wrapping to retain the moisture but obviously you would have to monitor your dog to ensure he did not try to eat it!

Once the clay begins to dry out and has done its work of drawing the toxins and impurities out of the wound, it naturally detaches itself from the wound and falls off easily: this is a good indication of when the treatment with the clay is finished.

Another poultice can be applied to the wound a few hours later and the treatment can be continuous for days, weeks or months at a time.

The duration and frequency of treatment with clay poultices will depend on the wound. Some severe cases can take months to heal, but the results are most rewarding.

Once you remove a clay poultice from a wound site, throw the clay away that contains the infected tissue and then gently rinse the site of the wound with running water. Do not worry if a small residue of clay remains on the wound, it will do no harm and it will most likely fall off by itself. Never ever let clay water run down a drain or sink, it will clog the pipes.

Do not use any other anti-septic products in conjunction with the clay treatments. Healing Clay is a very strong natural anti-septic.

It cleans the wound by drawing the bacteria, pathogens and toxins out of the wound and locking them inside the microscopic chambers of the clay itself.

Sometimes the wound can appear slightly worse after treatment before it starts to look better. This is because the clay is drawing all the toxins and infected flesh out, which can often look unsightly. Have some patience and keep applying the clay poultices. With time the wound will be free of infection and begin healing – closing up, regenerating tissue cells and looking better with each passing day.

Editor's note:

Quite by chance some years ago, I was recommended a product called 'Aztec Secret, Indian Healing Clay', which I imagine may be very similar to the one which Sally uses. I have often used it for poulticing the dogs when I have believed that there has been a foreign object, such as a thorn in their foot. I have certainly had great results from it but as with all natural treatments, there will be times when a veterinary visit is necessary.

For further information see:
<http://equinehealingclay.com>

"I like dogs. You always know what a dog is thinking. It has four moods; happy, sad, cross and concentrating. Also, dogs are faithful and they do not tell lies because they cannot talk."

**Mark Haddon,
The Curious Incident of the
Dog in the Night-Time**



URINARY AND KIDNEY STONES

I recently came across an interesting article in an edition of 'The Whole Dog Journal,' on the subject of the prevention of Kidney and Bladder stones.

This is a subject of interest to owners of many dogs, not just Wheaten terriers but with our breed specific concerns about the function of the renal system, I found it gave a slightly different aspect to the conventionally accepted viewpoint, regarding such things as crystals being present in the urine. It makes for interesting reading and I have summarised some of the elements below.

Background Information

Canine urinary tract stone disease can be described in many different ways: urinary stones, urolithiasis, bladder stones, urteral stones or urinary calculus disease being just some of the terms used, however, all uroliths (commonly called 'stones') are simply hard lumps produced by the concretion of mineral salts.

Uroliths fall into six categories depending on their mineral composition:

- Calcium oxalate
- Ammonium urate or uric acid
- Cystine
- Calcium Phosphate
- Silica
- Magnesium ammonium phosphate (also called struvites)

There can also be compound uroliths formed from more than one core mineral.

Different types of uroliths require different treatment so it is crucial to identify the mineral content correctly. Without having to remove the stone by surgery, an assessment of the likely composition may be judged by such things as the pH of the urine, the dog's age, breed and sex and the type of

crystals; if present in the urine. An extensive study of urinary stones from around the world showed that those dogs at greatest risk of developing urinary stones were small, female, between the ages of 4 and 8 years and prone to bladder infections.

Male dogs may develop fewer stones but because of their anatomy the condition is potentially more dangerous as they are more likely to cause a blockage because of the longer, narrower ureter.

One study in 1981 found 75% of stones examined were formed from struvite and only 5% were calcium oxalate but research 25 years later showed interestingly that the occurrence of struvite had fallen to 39% whilst calcium oxalate had risen to 41%.

The reason for this change had not been established but factors such as breed, age, gender and genetic predisposition have been considered along with environmental factors such as food, water, living conditions etc.

When bladder stones form, their core minerals may be found in the urine as microscopic crystals, which can form into small grains, like sand. These can then adhere to each other; creating stones which could measure up to around 7 cm or more in diameter.

Some dogs will never develop symptoms and their stones remain undiscovered; they only cause problems when they interfere with urination.

Symptoms can include traces of blood in the urine, straining to produce urine, licking the genital area more than usual, tenderness in the bladder area or pain in the lower back. Complications from a blockage can be fatal.

The vast majority of struvite stones form in the bladder, although they can be found in the kidneys on occasions.

Struvite stones usually form when the presence of crystals are combined with a urinary tract infection caused by bacteria. An associated factor is high pH (alkaline) urine.

You may have encountered many of the following statements; do you know which are correct?

- Urinary Struvite crystals represent disease and require treatment.
- Struvite crystals require a change in diet, usually to a prescription diet such as c/d, u/d, or s/d.
- Dogs prone to forming struvite stones should remain on the special diet for life.
- The most important treatment for dogs with a history of struvite stones is a low-protein diet.

Well, according to The Whole Dog Journal, all of the above are common misconceptions. The presence of struvite crystals in the urine does not represent disease and does not necessarily require treatment.

An estimated 40 to 44% of all healthy dogs will have struvite crystals in their urine. The cause for concern is if this is accompanied by signs of urinary tract infection.

The article goes on to dispel all of the other myths listed above, concerning the presence of struvite crystals but also has a wealth of information regarding the prevention of urinary tract infection – the key factor which can lead to the formation of stones in the

bladder - such as, monitoring the pH of your dog's urine.

Most healthy dogs have a neutral or slightly acidic urinary pH between 5.5 and 7.0; the lower the number- the more acidic, the higher the number- the more alkaline. Home testing with pH strips is perfectly possible but free-catch urine may be contaminated through other factors. However, the article also recommends preventative measures such as the use of cranberry capsules, probiotics and vitamin C.

If you are concerned about crystals in your dog's urine or he or she has had urine infections or treatment for uroliths, I recommend you read the article in its entirety here:

<http://tinyurl.com/cmdrht9>

There is plenty of conflicting advice concerning what water source is best for your dog but concerns have been raised about the sodium content of water that has been processed through a water softener.

Water from carbon filter jugs is generally said to be ok to use, as is bottled mineral water.

Tap water probably remains the most popular choice but again, concerns have been raised about its composition and the possible side effects of constituents such as fluoride.

Distilled water is lacking in all mineral content but this may also make it an unacceptable for your dog to drink on a daily basis.

"You can say any fool thing to a dog and the dog will just give you this look that says, 'My GOSH, you're RIGHT! I NEVER would've thought of that!'"

Dave Barry



WHI SEMINAR 2013 Dr Tom Lewis

BSc (Animal Science), MDip (Quantitative Genetics and Genome analysis), PhD (Quantitative Genetics)

Selection & Inbreeding

and Soft Coated Wheaten Terriers



We are indebted to Dr Lewis for his kind permission to use some of his slides in this account.

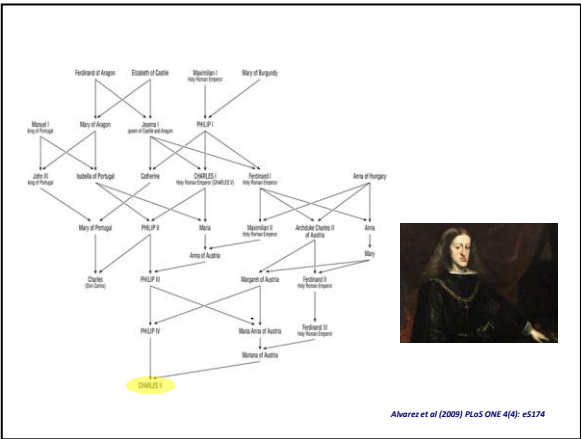
Dr Lewis began his presentation with an explanation of the good aspects to breeding for selected features such as type, specific traits and temperament.

Inevitably selecting specific traits may lead to the the mating of more closely related individuals than average.

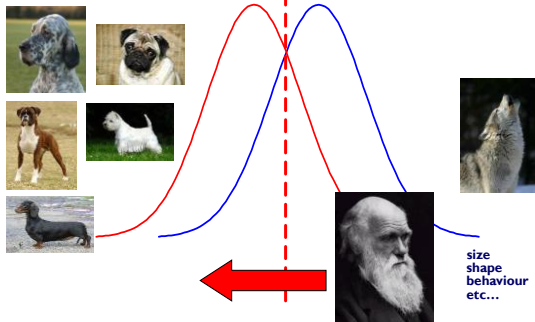
Dr Lewis chose a human example to demonstrate the problems that can arise as a result.

“Slowly, Anna put up a hand to his muzzle and began to scratch that spot behind the ear where large dogs keep their souls.”

Eva Ibbotson



Selection



Charles II of Spain was born physically and mentally disabled. He was unable to chew his food; possibly through a malformation of the jaw. His tongue was so large that his speech could barely be understood, and he frequently drooled.

It has been suggested that he suffered from the endocrine disease acromegaly or his inbred lineage may have led to a combination of rare genetic disorders.

Dr Lewis illustrated how, in dogs, a common ancestor might transfer a copy of a faulty gene to two of its progeny and that when those two are mated, the resulting offspring might inherit both copies of the faulty gene.

He also explained how easy it was for specifically selected features to become exaggerated by selection such as in Brachycephaly, where upper airway abnormalities may cause restrictions to the inhalation of air.

Dr Lewis gave a full explanation of the estimated genetic liabilities of disease – Estimated Breeding Values (EBV's); illustrating how the EBV's may be much more helpful in assessing the potential risk of genetic disease rather than simply relying on the test score of an individual dog.

Charles II is known in Spanish history as *El Hechizado* ("The Hexed") from the popular belief (which Charles himself subscribed to) that his physical and mental disabilities were caused by "sorcery." The king went so far as to be exorcised.

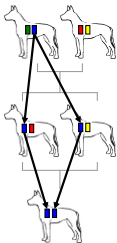
<http://tinyurl.com/qcfs423>

Identical by descent (IBD)

Inbreeding can result in both copies of a gene being **inherited from** and **identical to an ancestral copy**

→ IDENTICAL BY DESCENT (IBD)

If 2 copies of a defective gene are IBD...
... can lead to disease



WHI SEMINAR 2013 Dr Tom Lewis (Cont From P18)

He went on to explain how the Coefficient of Inbreeding (COI) was able to predict the likelihood of a dog inheriting two copies of a faulty gene; also explaining that the number of generations taken into the calculation was also crucial and advising that 10 generations would offer the most valid information for the SCWT.

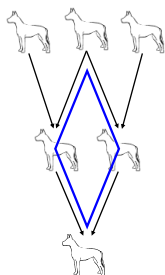
Dr Lewis gave clear information related to the SCWT regarding the 'Effective Population Size' also known as, N_e .

Effective population size is the number of individuals in a population who contribute offspring to the next generation, rather than the total number of puppies born.

Dr Lewis raised concerns regarding the use of popular sires and the effect on future generations.

This has only been a brief account of the complete presentation but the articles by both Sandra Jeffries and Ian Carter, which appear in his edition of the Newsletter, refer in more detail to the particular issues facing the owners and breeders of the SCWT.

Coefficient of inbreeding (COI)

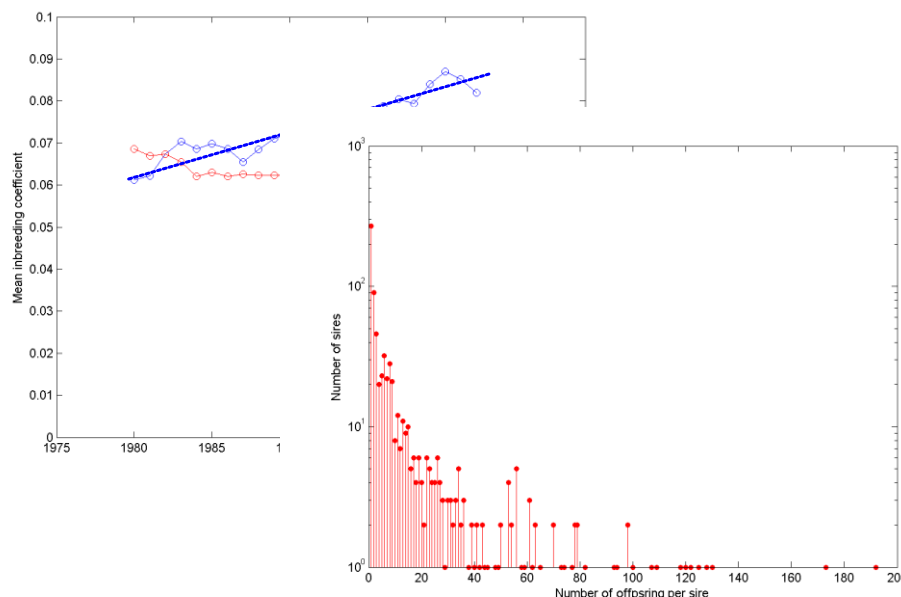


COI is a probability that the 2 copies of a gene are IBD

- 25% for offspring of a full sib mating or a parent/offspring mating
- 12.5% for offspring of a half sib mating
- 6.25% for offspring of 1st cousins



The situation for the SC Wheaten Terrier



STOP PRESS

WHI steering Group member, Kate Watkins, attended the BREED HEALTH COORDINATORS SYMPOSIUM at the Kennel Club in September (wearing her other hat as BHC for the Lakeland Terrier Club) but bringing back loads of very useful information for WHI in the process!

We will be featuring all the news in detail in the next Newsletter but as a taste of what is in store.....

Dr Tom Lewis, who of course, was one of our speakers at the 2013 Seminar has now taken on a key role in the KC's, Mate Select programme and is particularly focused on the issue of the use of Popular Sires (and bitches!)

The eventual aim will be that deleterious effects on breed populations through the overuse of a particular dog or bitch will be automatically flagged up and as you will read elsewhere in this edition of the Newsletter, it is a matter of concern that needs to be addressed by Wheaten

owners and breeders.

Philippa Robinson of the Karlton Index, who has praised the work of WHI in the past, played a role in the symposium and also Animal Epidemiologist, Dr Dan O'Neil of the RVC who is carrying out some fascinating research regarding the health of our pet animals, in the aftermath of the programme, Pedigree Dogs Exposed, with its strong bias against pedigree dogs.

Records of one and a half million cats and dogs have

provided the data for his research and the findings will be further reported by Kate in the next issue of the Newsletter.

Finally, the 2014 Pedigree Breed Health Survey will be online for completion after its launch at Discover Dogs in November.

If conversation after the BHC Symposium is an indicator of what might be the next issue under the spotlight, then the subject of what and how we feed our dogs could be it!



Wheaten Health Initiative

“To provide a platform for the reception and transmission of information about the health and well-being of the Soft-Coated Wheaten Terrier”

“Dogs lives are short, too short, but you know that going in.

You know the pain is coming, you’re going to lose a dog, and there’s going to be great anguish, so you live fully in the moment with her, never fail to share her joy or delight in her innocence, because you can’t support the illusion that a dog can be your lifelong companion.

There’s such beauty in the hard honesty of that, in accepting and giving love while always aware that it comes with an unbearable price.”

Dean Koontz

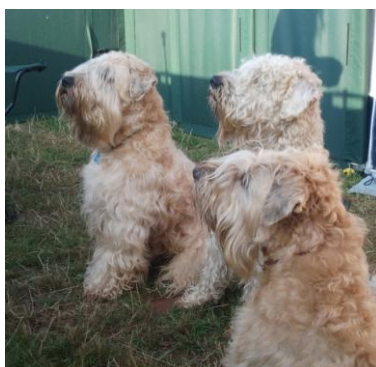
CONTACTS

Kate Watkins	(Secretary)	01543 684864
Ian Carter	(Chairman)	01793 765253
Malcolm Jeffries	(Treasurer)	01246 554742
	(Webmaster)	
Jan Thackray		01132 525206
Lynn Carter	(Newsletter)	01793 765253
Sandra Jeffries	(Database)	01246 554742
Sarah Watkins		01235 815053

Write:
Mrs K Watkins
34, Park Road,
Burntwood,
Staffs
WS7 0EE

Email:
wheatenhealth@aol.com

Website:
www.wheatenhealthinitiative.com



Smart phone users - here is the WHI QR code to access our site directly from your phone:

