Editorial

Again I am indebted to Lynn Carter who has compiled this Newsletter, leaving me with the easy job of writing the Editorial.

2010 was another busy year for WHI, that saw the conclusion of the pANCA Research Project, the outcome of which is reported later in this Newsletter. This entailed hosting a further 4 testing sessions during the year, together with a Seminar for Dr Allenspach and her team to present their findings. It was a bittersweet moment for all of us when we bade the RVC team a fond farewell and locked up the venue at Weedon Bec for the last pANCA-related event, in September.

Shortly afterwards we held a fund-raising auction on eBay and made a good profit with some items raising far more than anticipated and others having slightly disappointing results, but that’s the nature of auctions, you never know what is going to appeal to people. The star of the show was clearly the special donation by Ann Ryan of the Cinnamon Trust & Addison’s Disease Research Fund, a beautiful patchwork quilt that raised a fantastic sum of money, but if you could measure this in £ per hour of work, the winner got it for peanuts!

We have decided on a period of consolidation during the early part of 2011, however, we won’t be quiet for too long, and are already mulling over further projects.

Malcolm Jeffries has continued to work on and refine our website resulting in a very healthy following from all over the world (see p17 for an unexpected outcome).

We are all very proud of Malcolm’s achievement on our behalf.

The year has not been without sorrow, and we have been sad to say farewell to two stalwarts of the breed, Professor Andrew Nash and Shirley Barton. (See p 11 and p13 for our tributes)

My belief is that the work of Andrew Nash was tremendously important in shaping the way that breeders and owners began to think about the health of their dogs and paved the way for them to continue to do their own research into health issues; an example of this being the setting up of Wheaten Health Initiative.

WHI was formed to ensure that breeders and owners were clear about, and able to discuss the health issues that affect Wheatens worldwide. Our subsequent association with Dr Karin Allenspach of the Royal Veterinary College, led, with co-operation from owners and breeders, to the pANCA Project; providing vital research into the possible relationship between pANCA and protein losing diseases.

Shirley was known to many as the owner and breeder of the Doulallie Wheatens, and loved the breed dearly – her attendance at shows was for the fun of entering, the ‘glory’ side of it never entered her head. She was a popular and well-respected lady who always had a group of friends around her when she sat ringside to watch the judging at Shows.

Her knowledge and caring nature will be missed, as even when she was ill she always had time to give to her Wheaten friends.

We ended 2010 on a sad note with the loss of two good people who promoted the welfare of our breed, and as we go to press we have heard the sad news of the passing of another stalwart of the breed, Tony Killykeen-Doyle, who bred Wheatens and Irish Wolfhounds under the affix of Killykeen in Eire. Tony was a good friend of the late Maureen Holmes, and also held the Holmenocks affix, which he never used. He also owned the last of the Holmenocks Wheatens bred by Maureen. Tony was a respected judge, and judged our Breed at Crufts in 2007.

The WHI Steering Group, Lynn, Ian, Sandra, Malcolm, Kate, Sarah and I, wish you all a belated Happy and Healthy Wheaten New Year, and we thank all of our supporters for their invaluable help during the last year – they know who they are and how much their support means.

Jan Thackray
The pANCA Project Seminar – September 2010

The final pANCA sampling sessions came to an end in July and a Wheaten Health Initiative Seminar following the conclusion of this Project took place on the 25th September at Weedon Bec, Northants. As always, at all events during the Project, the day was well attended, relaxed and informal.

During the morning session the RVC team gave an overview of the Project with plenty of time for discussion and questions. The final report is now on the WHI website.

Fiona White presented ‘Emergency First Aid for your Dog’ during the afternoon with many useful tips of what to do should accidents occur. Young Min Witheyman’s puppy Summer (Steelegrave Dutch Kiss by Dascol) was the model for the bandaging and had a hip, a front leg and her head bandaged all without any fuss, although I understand Mum Lynne and Min had been practising on her before the day. She looked so odd in her bandaged state causing much amusement with the audience.

Pam and John Clarke were again on hand with a wonderful array of cakes and coffee on arrival, a beautiful lunch of jacket potatoes, corn on the cob, salad, excellent coleslaw which John had made, and chilli, with fresh fruit salad, meringue and lashings of cream. Many thanks go to them as this was very much appreciated and enjoyed by everyone.

During the Project, a puppet named GT helped considerably in raising funds. Kindly commissioned by Barbara & Steve Bradford (Abiqua Wheatens), he was introduced in the WHI Newsletter in March 2006 and raffled to raise funds. GT was campaigned regularly selling his raffle tickets and collecting donations in his bone-shaped money box. He travelled extensively and was photographed with well known faces in the dog world, plus a group of Chelsea pensioners at Crufts that year. All proceeds went to WHI health projects and the lucky owner of the winning ticket was to take this unique little chap home. The winning ticket was drawn at LKA 2006 and the lucky winner was Karen Webster (Kazeen Wheatens), who was thrilled to have won him, but made the decision that for the time being he should stay with WHI as she felt there was still more he could do to raise funds. She said that when, and if, he retired he was to be homed with a special little girl who she knew would give him a good home. On the Saturday of the Seminar, young Min Witheyman was that special and very surprised little girl who was presented with GT, he had found his home at last.

All those who had participated in the longitudinal study received a beautiful commemorative Rosette in WHI colours of maroon and cream printed ‘SCWT pANCA Project – WHI 2007-2010 RVC”, a lovely touch of appreciation to round off three exceptional years.

There were three cakes presented for afternoon tea - one bearing the logo of WHI, another for the RVC, and a gluten-free Wheaten!

During the Project, a puppupet named GT helped considerably in raising funds. Kindly commissioned by Barbara & Steve Bradford (Abiqua Wheatens), he was introduced in the WHI Newsletter in March 2006 and raffled to raise funds. GT was campaigned regularly selling his raffle tickets and collecting donations in his bone-shaped money box. He travelled extensively and was stay with WHI as she felt there was still more he could do to raise funds. She said that when, and if, he retired he was to be homed with a special little girl who she knew would give him a good home. On the Saturday of the Seminar, young Min Witheyman was that special and very surprised little girl who was presented with GT, he had found his home at last.

Don’t forget to complete the pANCA questionnaire. See page 17

Barbara Penney
The 2010 Breeders' Symposium was held at the Royal Veterinary College in Hertfordshire on Sunday 28th November. The day was freezing cold but apart from a handful of people who were prevented from attending because of the weather, over 100 breeders and dog health enthusiasts filled the lecture theatre to listen to the speakers. The focus of the symposium was on improving the long term health, genetic diversity and viability of pedigree dogs.

DR. TOM LEWIS
The KC Genetics Centre at the Animal Health Trust

Dr. Lewis talked about Estimated Breeding Values, commonly known as EBVs, and their application to dog breeding. EBVs are the estimated genetic liability of disease. Some diseases are caused by a single gene and a simple DNA test can be developed to test for these. Other diseases are more complex with multiple genes involved, together with environmental factors and diet. Dr. Lewis used Hip Dysplasia as an example of how EBVs can be used to improve a breed's disease status. Multiple factors affect a dog's individual hip score:

- In utero
- Neonatal
- Diet
- Exercise

all contribute to a dog's hip score but only genes pass to the next generation.

The only component of the above which will be improved by selection, is genetic input. As much phenotypic (observed) data as possible, will be collected from a large representative proportion of a population of dogs and together with the readily available pedigree information, will be used to calculate individual EBVs. The present KC/BVA Hip Dysplasia scheme only uses a dog's phenotypic disease status.

The EBVs have several advantages over phenotypic disease status: 1) EBVs are more accurate than phenotype since all sources of information, including that from relatives, is utilised in the calculation. 2) EBVs are available from birth. 3) EBVs are available for all animals in the pedigree, not only those with a phenotypic record. 4) EBVs will have been corrected for non-genetic effects, such as sex and diet etc. EBVs open up the possibility of using dogs with higher than average hip scores because the genetic influence of ALL dogs in the pedigree of potential puppies will have contributed to the EBVs of the sire and dam.

Quantitative Geneticists at the AHT will calculate individual EBVs and this information will be available on the Kennel Club website, a resource accessible to everyone.

Dr. Lewis finished his talk with a warning: Breeders need to be aware that selection is linked to a decrease in genetic diversity. Genetic bottlenecks occur when a limited number of individuals contribute to future generations and can accelerate the rate of inbreeding within a breed. For example, the use of popular sires who have more offspring than other individuals and will consequently have a higher chance of contributing their genes to subsequent generations. Selection can have a similar consequence as selected individuals are likely to come from a limited number of families.

The deleterious effects of inbreeding (inbreeding depression) are significant:

- Reduced litter sizes, semen quality and reduced fertility.
- Increase in genetic disorders.

The greater the degree of inbreeding, the higher the chance of inheriting a disease allele from both parents and therefore being affected by the disease. This is the underlying reason why inbreeding is a high risk factor for the emergence of inherited disease. The inbreeding coefficient of any individual can be predicted by the relationship between its parents, using their coancestry or kinship coefficient, so can be checked prior to making a mating.

The deleterious effects of inbreeding (inbreeding depression) are significant:

- Reduced litter sizes, semen quality and reduced fertility.
- Increase in genetic disorders.

**The greatest pleasure of a dog is that you may make a fool of yourself with him, and not only will he not scold you, but he will make a fool of himself, too.**

*Samuel Butler*
Lower birth rate, higher juvenile mortality, slow growth rate.
Loss of immune system function, smaller adult size.

The rate of inbreeding in a population is proportional to the effective population size (the number of individuals making a genetic contribution to the population).

It is generally recommended that the rate of inbreeding should be constrained to no more than 0.5% per generation which corresponds to a minimum effective population size (EPS) of 100. If the EPS falls below this then the fitness of the population will steadily decline, due to the effects of inbreeding depression and the population may become non-viable in the long term.

Population analysis based on pedigree records allows the rate of inbreeding to be estimated for any particular breed. The rate of inbreeding in many dog breeds exceeds the rate of 1% per generation, meaning that the EPS's are below 100. This is true even for some breeds with very large census sizes. Several options are available to aid breeders in increasing EPS and reducing the rates of inbreeding so that the risks of new inherited diseases arising are minimised. These options range from minimising the co-ancestry between prospective parents to a state-of-the-art method known as optimum contributions.

This method determines which group of animals should be selected to ensure the rate of inbreeding remains low in future generations although care must be taken to sample the genetic map of a breed in its entirety.

One advantage of the method is that it allows for selection of desirable traits or against undesirable traits such as existing inherited disease.

This is of particular importance for rare breeds, when applying selection can have serious consequences for the maintenance of diversity. These approaches will be made available to dog breeders through the Kennel Club's MATE SELECT tool.

PROF JEFF Sampson
IT Developments at the Kennel Club.

Prof Sampson said that health surveillance has been part of the responsible breeder psyche for some considerable time. Clinical screening programmes run jointly with the British Veterinary Association detect eye, hip and elbow conditions and breeders have been able to use the results to select against these conditions in their breeding programmes. Since the turn of the century, a significant number of DNA tests have been developed for testing for single gene mutations and the creation of the Kennel Club Genetics Centre at the Animal Health Trust (AHT) has been a major boost to the technology here in the UK.

Line breeding is inbreeding and there is no doubt that line breeding and the use of popular dogs have improved dog breeding over the years, but it has also brought with it collateral problems leaving most of today's breeds far more genetically homogeneous than we would wish.

The new Mate Select tool is the first of many new tools that will help breeders manage inbreeding in the future and has been made possible, largely through the quantitative geneticists at the AHT.

DR. CATHRYN MELLERSH
DNA Testing for Inherited Disease – An update on the KC Genetics Centre.

Dr. Mellersh began her talk with a brief overview of the structure and function of DNA and the mutations that are responsible for inherited diseases in the dog.

The tools that are currently available make the identification of some diseases almost routine. She then gave a summary of the diseases and breeds that are currently being investigated by the KC Genetics Centre. She spoke of the recent results, in particular the DNA tests for Primary Lens Luxation and Progressive Retinal Atrophy in the Golden Retriever.

Dr Mellersh pointed out that the gene responsible for PRA in one breed could be completely different in another breed. They have also had some recent exciting results involving two separate conditions in Cavalier King Charles Spaniels.

Her last comment was particularly interesting. Dr. Mellersh said it would be useful when investigating a condition, if she could obtain DNA samples from dogs who are older than the age at which a disease usually manifests, itself and appear to be healthy; a potential project for WHI in the future.

It was a very interesting day and well worth the long drive.

Kate Watkins
Introduction

The breed of Soft Coated Wheaten Terriers (SCWT) seems to be specifically prone to develop PLE and/or PLN. PLE is defined as a non-selective loss of serum proteins (albumin and globulin) via the small intestine. It is usually caused by primary small intestinal lymphangiectasia or secondary to inflammatory bowel disease. However, its specific cause in SCWT is unknown. PLN is characterized by a loss of albumin from the kidney.

An estimated percentage of approximately 10% of dogs of this breed in the United States and an unreported percentage of SCWTs in the UK develop PLE and/or PLN. The first SCWT with PLE in the U.K. was published by Melville et al. in 2004. Littman et al have performed a pedigree analysis over four generations of SCWT and found a common male ancestor attributed to the affected dogs. This suggests a genetically inherited condition, but the mode of inheritance remains unknown.

Studies in the US reported that these syndromes affect middle aged to older dogs (4-6 years) with a predisposition for females. PLE and PLN are devastating diseases associated with severe weight loss, inappetence, diarrhoea, vomiting, polyuria/polydipsia (increased drinking and urination), ascites and dyspnea because of pleural effusion and peripheral oedema. Mesenteric lymphadenopathy, thromboembolic disease and cardiac abnormalities can also be seen in some cases. Clinical signs of PLE may arise earlier than signs of PLN. PLE and PLN are chronic and often fatal in SCWT. Prognosis is poor with median survival times of a few months (five months for PLE and two months for PLN) after the diagnosis.

Due to unspecific clinicopathological parameters of the disease and its poor prognosis, early diagnosis of the disease is crucial for the dog's health and could help eradicating the disease through the use of breeding programmes. Thus, it has been suggested that pANCA might be an early serological marker for PLE/PLN in this breed.

Recently, some studies regarding pANCA and PLE/PLN in Soft Coated Wheaten Terriers (SCWT) have been carried out. In a study with SCWTs and SCWT-Beagle crossbreed dogs affected with PLE/PLN from a colony at North Carolina State University, it was estimated that the sensitivity and specificity of the pANCA test for the diagnosis of PLE/PLN in this breed was 95% and 80%, respectively (Allenspach et al American Journal of veterinary Research, 2008). Therefore, pANCA seemed to be strongly associated with PLE and PLN in SCWT. Moreover, it was reported that the first positive result for pANCA was seen 2 to 3 years before the onset of hypoalbuminaemia (decreased blood albumin levels), which indicates that it may be a useful early non-invasive test for predicting which animals will develop PLE/PLN. However, since almost all dogs of that study (18/21) ended up having the disease, further studies are needed in a larger population of dogs of this breed.

A previous cross-sectional study in healthy SCWT performed in the UK found that the prevalence of pANCA in this breed was 20.7%. Such a remarkable prevalence of pANCA status is not considered as normal in a healthy dog population, as these auto-antibodies are considered to be increased in autoimmune diseases. It was therefore, considered possible that a proportion of these dogs was likely to develop PLE/PLN later on in their life. Therefore, since then, a longitudinal study was performed, in order to evaluate the clinical usefulness of the pANCA test for the diagnosis of PLE/PLN and the importance of the disease in this breed in the UK.
Results

Prevalence of PLE/PLN in SCWT in the UK

During the study period, over half (57/103 or 56%) of the dogs reached the age where disease onset is likely to occur (4-6 years). Two dogs of the longitudinal study population (2/103) were affected with PLE and/or PLN. Both dogs were detected as pANCA negative. Three more cases have been reported at the Queen Mother Hospital at the Royal Veterinary College. Blood has been collected from 2 of them and one was found to be pANCA positive. Therefore, we estimated the incidence of PLE/PLN in the SCWT in the UK to be 2% (CI 95%, 0.002 to 0.068). This is very positive finding, as it means that not very many dogs are affected at this time-point. It is likely that the awareness of the disease was raised among breeders over the last few years and that this has contributed to less inbreeding of affected dogs.

Prevalence of pANCA in healthy SCWT in the UK

From the longitudinal study 14 out of 103 (14%) dogs were found to be pANCA positive. From the dogs that participated in all of the sampling sessions, 1 (0.9%) had repeatedly tested pANCA positive and 27 (26%) tested negative at all time points. Forty five out of 103 dogs (44%) were detected as pANCA negative and 4 (3.9%) as pANCA positive at the times the dogs participated in the sampling sessions. Fourteen (13.6%) converted from negative to positive, six (5.8%) from positive to negative and six (5.8%) changed their pANCA status more than once over the study period. Total percentage of dogs with fluctuation of pANCA status was 25% (see Table).

Therefore, a remarkable percentage of dogs had changed their pANCA status over the study period at least once. The phenomenon of seroconversion of pANCA has also been noticed previously in other studies in dogs using immunofluorescence and it seems to be due to variable antibody levels in the blood at each time the dog is tested. In order to determine the true pANCA status of a dog, it was important that all dogs were retested as many times as possible within the study period. As it was not feasible for all the owners to bring their dogs for all the sampling sessions, we have some missing pANCA data in our longitudinal study with SCWT, which might have affected our results.

Table: Proportion of dogs with fluctuations in their pANCA status

<table>
<thead>
<tr>
<th>pANCA fluctuation</th>
<th>Number of dogs</th>
</tr>
</thead>
<tbody>
<tr>
<td>negative at all samplings</td>
<td>27 (26%)</td>
</tr>
<tr>
<td>negative at the times they have participated</td>
<td>45 (44%)</td>
</tr>
<tr>
<td>positive at all samplings</td>
<td>1 (0.9%)</td>
</tr>
<tr>
<td>positive at the times they participated</td>
<td>4 (3.9%)</td>
</tr>
<tr>
<td>Seroconverted from negative to positive</td>
<td>14 (13.6%)</td>
</tr>
<tr>
<td>Seroconverted from positive to negative</td>
<td>6 (5.8%)</td>
</tr>
<tr>
<td>Seroconversion of pANCA status more than once</td>
<td>6 (5.8%)</td>
</tr>
<tr>
<td>Total number of dogs</td>
<td>103</td>
</tr>
</tbody>
</table>
During the longitudinal study period approximately 2% (2/103) of the dogs had serum albumin concentrations (range 17.1 – 27.9) below the reference range, 74% (76/103) within the reference range (28-39g/l) and 24% (25/103) above (range 39.2 – 72.1g/l).(see Figure). An important percentage of dogs had albumin concentration above the reference range. This might be due to stress, dehydration or consumption of recent meal. Furthermore, it is possible that the reference range of albumin concentration in SCWT might be higher than in other breeds of dogs, as the population of dogs making up the reference range at the Royal Veterinary College did not include many SCWT.

**Figure:** Proportions of dogs with albumin concentrations below, within and above reference range (28-39g/l)

No statistically significant association was observed between a pANCA positive status and dogs affected with PLE/PLN. Sensitivity of pANCA test for diagnosing PLE/PLN was calculated at 25% and specificity 84%. However, the low prevalence of PLE/PLN in UK makes it difficult to evaluate the reliability and the accuracy of the pANCA test for these syndromes. Since 18% (19/103) of the dogs in this longitudinal study were in the age range of the disease onset by the end of the study, it is possible (although not hoped for!) that some of them will still develop PLE/PLN in the future. Thus, clinical information on all dogs included in the study, regardless of their pANCA status, should ideally be collected, in order to reach a more scientifically reliable result. It will be of major importance for our project, to contact us if there are any changes in your dog’s health. Questionnaires regarding your dog’s health can be downloaded from the [http://www.wheatenhealthinitiative.com/Pages/home.html](http://www.wheatenhealthinitiative.com/Pages/home.html) and we would be grateful to receive such information approximately every 6 months.

In addition, regardless of the results of this study, wealth of clinical and pedigree information on healthy and affected dogs of this breed has been collected over the study period. Consequently, this project could be the basis for genetic studies regarding PLE/PLN in SCWT in the UK. Moreover, the higher prevalence of PLE/PLN in USA compared to a lower prevalence in UK further supports that different environmental factors may play a role and may affect the prevalence rate in different countries.

We would like to thank everyone involved very much for participating in this study and the UK Kennel Club for generous funding of the study.

Best Regards,

Karin Allenspach, Barbara Wieland, Anna Eleonora Karagianni and the RVC team
27 September 2010
In search of genetic diversity

In the last Newsletter, we gave several accounts of Breeders who have gone to great lengths to seek to improve the gene-pool options within the UK. Here Bev Hanna recounts some of her experiences.

On attending the World Dog Show in Sweden in July 2008 we were fortunate to see some lovely dogs. I had always been an admirer of the ‘continental’ SCWTs and finally got to see in the flesh dogs that at that point I had only seen and admired from photographs. One dog in particular stole my heart, Finnish and Multi Ch Grebnello Be Gorgeous, “Tauno”, one of the top dogs in Finland for several years. On travelling back on the plane I knew I just had to find a way, and the funds, to enable me to use him. But at that point I had not a clue how to do it and doing this had simply not crossed my mind before.

Back in the UK I set my mind to the task. First emailing the owner and building up our relationship and discussing all the issues relating to using Tauno with my bitch “Aelbhe”, Ch Kinelaen Cuchylaene, pedigree and health and also looking at Tauno’s progeny from a number of matings. Secondly looking at how I could travel my bitch over to Finland where Tauno was based. This then gave me an indication of what this might cost and if it was feasible for me to do financially. I spent hours on the internet looking at various ways and routes to travel along with taking into consideration other issues – travelling on my own meant that driving would have its limitations, issues of breaking down and above all timing. When your bitch is in season then you only have a limited amount of time to play with. I also considered AI (artificial insemination) but this was going to cost around the same as travelling the bitch directly to the dog and is not always as successful as a natural mating. I would rather do a natural mating if at all possible and so this is also what dictated my plans.

In the meantime I also got on with getting my bitch ready for travel – namely rabies vaccinated to enable her to go to Finland and come back. This whole process takes a minimum of 7 months so you do have to plan ahead and also leave a few months extra just in case initial titre levels come back too low. Further checking on the internet with the Finnish authorities and here in the UK with DEFRA to make sure I did not need to undertake any other regimes prior to my planned expedition.

Eventually I decided to take the flight option to travel Aelbhe. It was a little more expensive than to drive and ferry but the benefits outweighed easily in ease and time which meant far less stress on both Aelbhe and me. Next was to find out which route I could fly. Flying the dog means that you have to travel to the main airports and although the nearest airport to Tauno was Tampere, I could only fly Aelbhe into Helsinki. I don’t think it makes any difference which airline you choose as all the animals pass through the same system at each airport regardless of what airline you use. Each airport has procedures in place with regard to the travel of ‘live’ goods to which all airlines have to apply and abide by. Aelbhe is also well travelled and so used to noise and I felt that the flying would not upset her.

Flying a dog out of the UK is easy but is a bit more complicated when bringing the dog back into the UK as it is the UK and DEFRA that has the stringent rules regarding the rabies, worming and flea treatments. The dog also has to travel in an airline approved kennel – namely a Vari Kennel and this must be the correct size for the dog. There are guidelines pertaining to this. From my experience, an Intermediate size Vari Kennel is considered border line for a SCWT (unless you have a very small SCWT) and I have travelled Aelbhe in a Large size with no problem. If the Vari Kennel is considered too small you will be alerted to this on the return journey and you may be prevented from travelling from the country of departure as the UK authorities who receive the dog on arrival will fine the airlines if they transport a dog in their eyes incorrectly, lie in too small a kennel. Therefore it is important that you try not to cut corners on this aspect and just accept that bigger is better.

You will have to purchase the vari kennel yourself in addition to the air fare. Whilst there is no need for veterinary input on the outward journey to Finland, I did make an appointment with my vet 24hrs before our flight for him to sign the ‘fit to travel’ section of the Pet Passport.

To fly out you need to check direct with your chosen carrier for requirements. I travelled with Finnair who were superb. I booked my flights and left my return ticket open in case matings did not go to plan and I needed to extend my stay and therefore change my ticket. I advised Finnair that I would be travelling out of the UK with a dog and they needed to know the weight and dimensions of the kennel. The dog travels as excess baggage but is not included as part of your own allowance. At the time I travelled the cost was about 10 Euro’s per kilo and the dog and kennel came in at 28kg. So that is on top of the cost of your own flight.
In search of genetic diversity
(continued)

We went to Heathrow to the main passenger terminal and queued with the rest of the passengers and checked in. This causes some amusement of course with a dog walking round the concourse. Then I went back with Aelbhe just as check-in closes, to be taken into the back of the passenger terminal. Here the cargo guys x-ray the kennel and I put Aelbhe in and reassured her and off she goes. She is now in the kennel until we meet in Finland. It is only 1.5 hours before the flight takes off but time is not on your hands; as a passenger you now have to get through the usual security checks and get up to the boarding gate. No time for duty free shopping! However once through security I purchased a bottle of water so that I had some for Aelbhe when we landed (although the dog travels with a water bowl anyway). It is also best not to feed your dog the night before travel and not to leave chews or food in the kennel during transportation.

At the boarding gate we could see the plane and I was able to see Aelbhe loaded on to the plane. Reassuring but if I have not seen the dog go on I have, when boarding myself, asked the stewards if they can confirm that my dog has been put on board before we take off and they have always done this for me which has meant that I could fly without worrying she has been left behind.

On landing in Finland we go through all the regular passenger things and I was told to collect Aelbhe from the baggage hall. I had visions of her sitting in the Vari Kennel on the luggage carousel going round and round! However, this is not the case. In Helsinki you have to notify the baggage hall desk and they come and unlock a door where the dogs have been left. Once out of the baggage hall and customs you can let the dog out of the kennel.

The return trip is a little more ‘complicated’. The dog has to travel as a ‘cargo item’ rather than ‘excess baggage’. Again the airline carrier will let you know what their specific requirements are. Once we had had successful matings and I knew when we could return I was able to book Aelbhe’s flight back – fortunately on my already booked flight otherwise I would have to have changed it, but it is Finnair Cargo rather than the passenger side who take this booking. Once the flight is booked you then know when to get your treatments arranged for your return to the UK. Current requirements demand that the dog receives flea, tick and wormer prior to entry to the UK. This must be done not less than 24 hours before entry to the UK but within 48 hours of entry to the UK. This means that you must get this done 24 hours before entry to the UK and have a 24 hour window to get this done. This has to be done by a veterinary surgeon that is registered for the Pet Passport Scheme. If not then your documentation will not be valid to enter the UK. It is also worth noting that should your travel plans be delayed for any reason and you have had the treatments done, if your rescheduled travel plans mean that the treatments fall outside of the 24/48hr rule, you will be required to have them done again. DEFRA is extremely strict on this matter.

On travelling back the dog has to be taken to the departing airline Cargo office by 4 hours prior to flight departure. This is to enable all the paperwork to be completed and photocopied (including the Pet Passport) and this is faxed to the destination airport (Heathrow in this case) who will confirm whether the dog will be accepted into the country. It is here that issues with too small a vari kennel may crop up. Hence it is so important to have treatment timings, kennel and paperwork correct otherwise the dog will not even fly.

So you leave the dog at the Cargo office, again after they x-ray the kennel but the dog is put in a run until boarding is required. In the meantime you go to the passenger terminal and go through the usual passenger routine... I have rung the Cargo office before I have checked in to check that all is OK and the dog can fly – again just for my own peace of mind as they tend not to contact you unless there is a problem and I would always ask the stewards when I board the plane to check the dog has made it on board.

The cost of cargo is about double that of excess baggage as you pay not only for weight but also volume. On top of this you also have a handling fee to pay on arrival (around £150 in my case). This covers the cost of the Animal Quarantine Centre at Heathrow who come out and collect the dog straight off the plane, as soon as you have landed and they take it to the centre and it is let out of the kennel and checked over. There is no way round this, it is how it is done. As a passenger you get off the plane in the normal manner, collect your luggage and go through Customs and then get to your vehicle.

You then have to go to the Cargo servicing company which is round the cargo side of Heathrow and it is here where I have met difficulties in that the directions and post code do not direct you directly to the right place!
Quite frustrating when you have had a long day travelling and are keen to meet your dog – but both times I have travelled to Finland it’s taken me an hour to find the servicing company – unfortunately a different one each time I travelled. Once there you pay the handling fee and get a release document to take to the Animal Quarantine Centre where you can collect your dog once they match up your Pet Passport with the previously faxed documentation. Aelbhe bounced through the doors both times as happy as Larry!

It is not difficult to travel your dog as long as you do your homework, accept things may not always go to plan and be prepared to pay for the cost of it all. On my second trip in February, like the UK, Finland had had a very hard winter and they were still thigh deep in snow. I was concerned that maybe the flights might be affected which would affect my travel plans at the most crucial moment. However as Sari reassured me ‘Darling, this is Finland, we are used to the snow, the planes are always flying!’ Little did she know then that my departure would be delayed for 3 days due to a tanker driver’s strike!

Fortunately for me I was staying with Sari and not in a hotel; although I had to change my flight once we knew when we could fly again, with an additional £50 cost.

Even though I chose to do a natural mating, we do not control Mother Nature and despite all going to plan, the end result did not happen for us on our first trip to Tauno. Although scanned in whelp, Aelbhe began to reabsorb the whelps resulting in no puppies. A cruel blow. But when you are passionate about something, bloody-minded determination can get the better of you and after ‘re-defining’ my finances another trip followed at Aelbhe’s next season.

We were not sure if the treatments had affected the pregnancy as they are toxins but I took a milder wormer with me on the second visit and asked that she only had absolutely the minimum of what was required. We also gave her charcoal tablets before we went to the vets and on our return from the vets washed off the flea treatment as soon as we could.

This second visit resulted only in two puppies; I am not sure why, as Aelbhe had already produced litter of 8 with another male, but it seems Mother Nature was determined to get the better of me. However two is better than none and a very precious girl and boy reside now with me.

As a rough estimate each has probably cost in the region of £3000 to produce. Its best not to think about it but undertaking any mating abroad is not for the faint hearted! However, I hope these two individuals will make a valuable contribution to the SCWT breed, in helping to widen the gene pool in the UK.

On the plus side it has been wonderful making new wheaten friends and experiencing the country of Finland – walking on Valkeokoski frozen lake (wow!) …..and I have two beautiful ‘Tauno’ babies!

Scratch a dog and you’ll find a permanent job.

Franklin P Jones

Do you know someone who is elderly or ill and is finding looking after their dog really difficult? Perhaps they need to go into hospital and do not know what will happen to their pet whilst they are away?

Well let them know about the Cinnamon Trust.

This charity has a national network of over 15,000 community service volunteers and has been established to provide practical help when any aspect of day to day care poses a problem - for example, walking the dog for housebound owner.

A national fostering service is provided for pets whose owners face a spell in hospital - volunteers take pets into their own homes and supply love and care in abundance until owner and pet can be reunited.

The Cinnamon Trust also provides long term care for pets whose owners have died or moved to residential accommodation which will not accept pets. Arrangements are made between owners and the

Trust well in advance, if possible, so owners do have the peace of mind in the knowledge that their beloved companion will have a safe and happy future. The owner is kept in touch with visits, if possible, or regular photos and letters.

If you want to find out more about the Trust or to offer your support, they can be found at:

www.cinnamon.org.uk
Memories of Shirley Barton

In this tribute, Denise Pascoe shares her own personal memories but we know that the loss that Denise feels is shared by the many people who knew and loved Shirley, too.

I first met Shirley back in 2000 when she had organised a WOW day at Fountains Abbey near Ripon. It was the start of a friendship that lasted for the next 10 years and was cut far too short by her passing in November this year.

I always (jokingly of course) say that Shirley has cost me a fortune over the years. It was she that persuaded me to show Seamus in the first place, and we all know how hooked on showing you become once you start. She encouraged me to consider a second wheaten, which has since become five. And then there was the caravanning! But I wouldn’t have had it any other way.

Shirley was a fantastic lady. She was a true Yorkshire lass, with plenty of grit and determination. She was the type of person who could never say ‘NO’ to anyone who asked for her help, often this was at the expense of her health, especially during the last year or so since being diagnosed with Lupus. Despite everything she was going through, she always had a smile on her face and she had time for everyone. At Wheaten fun days or at open shows, she would either be in the kitchen, with her husband Martin at her side, or selling raffle tickets or often both. She would also be giving advice to new or prospective owners, many, who like me, became her good friends. She always seemed to have so much energy.

She was so proud of her family, Martin, their three children Vicky, Danielle and Olly, her grandchildren Lucie and Owen and all their achievements. They, and her two Wheatsens Ally and the infamous Ted the Terrible, were always her number one priority. Her love of Wheatsens knew no bounds. She truly loved the breed and the stories she wrote about Ted for the Club Bulletin captured that love as well as having many of us in tears of laughter at his antics.

Yet she was very modest about her own success. Few people knew that Shirley gained an Open University degree a few years ago. Typical of Shirley, she kept this very low key so much so that she didn’t even go to her own graduation ceremony and afterwards very rarely mentioned this achievement to anyone.

Shirley was taken from us all far too early. There was so much more she wanted to do and see in her life. If there is one lesson we should all take from her it is “carpe diem” - seize the day and to live every day to the full.

I know Shirley will be missed by so many people, especially in the world of Wheatsens - especially by me!

Denise Pascoe

Monitoring Your Dog’s Health Using The Health Tracker™

In Newsletter 18, September 2009, p6, I wrote an article: ‘Managing Incontinence in the Elderly Dog’. In this article I wrote that our Tara, (who is now 14½ years old), had geriatric renal failure. I thought some readers might be interested to view Tara’s ‘Health Tracker’ (see appendix i).

The Health Tracker is a computer Excel spreadsheet programme, which was ‘invented’ in the USA by Anna Marzolino and Janet Petros, with the help of Key Researcher, Dr Meryl Littman VDM, DACVIM, Associate Professor of Veterinary Medicine at the University of Pennsylvania, and Dr Wendy Beers DVM.

The programme helps owners to monitor their dog’s health and track the progression of any trends which may not be spotted when simply looking at a single set of results.

On the Health Tracker, results show red if a higher than ‘normal range’ reading occurs and blue for a lower reading. Black is for readings within the veterinary laboratory ‘normal range’. The ‘normal range’ can vary between laboratories, but the Health Tracker can be adjusted to allow for this.

Comment boxes provide a glossary of medical test terminology. For example: “ALBUMIN serves to help regulate blood volume and blood pressure. Reduced levels of this protein can point to chronic liver or kidney disease, or parasitic infections. High levels indicate dehydration. Loss exceeding the liver’s ability to produce albumin occurs from either the GI tract, or from the kidneys.”

“CREATININE: is a by-product of muscle metabolism and is excreted by the kidneys. Elevated levels can indicate kidney disease or urinary obstruction, muscle disease, arthritis, hyperthyroidism, and diabetes. It is less influenced by variables than BUN (Urea). An increased BUN and normal creatinine suggests early or mild kidney problem. An increased creatinine and increased BUN with elevated phosphorus indicate a long standing kidney problem.”

If, after reading this and the case study which follows, you would like more information on the Health Tracker, please contact Malcolm Jeffries, (email: wheatenhealth@aol.com or phone 01246 554742), who with Anna’s help adjusted the Health Tracker for the UK. It can be purchased for a minimum donation of £5.

If you live in another country please email using the same address and we will pass your details onto Anna who will be able to assist you.
Geriatric Renal Failure and Food Allergies – A Case Study
Monitoring Your Dog’s Health Using the Health Tracker™

In September 2008 Tara had a urinary infection, at this stage the health tracker (see appendix I, date: 06/09/08) shows she was concentrating her urine okay her result being 1042.

Our 3 dogs went into kennels in January 2009, whilst we visited our daughter and family in New Zealand. As soon as we collected the dogs we could tell Tara was not well, she had puncture wounds which the kennel staff told us was from a result of a fight with Chloë! This was a big surprise to us, as they had never before had a disagreement, nor have they had one since!

At first we thought Tara was just traumatised by the disagreement, and as her wounds were already healing, we did not initially worry, but after about a week (March 2009), we noticed Tara had become incontinent. Blood and urine tests were taken and it was discovered she had a severe urine infection, and renal failure.

It is thought the urine infection started whilst in the kennels and went undetected, and this possibly caused a Pyelonephritis, a condition, which can result in renal problems. Tara was given antibiotics, and our Vet, Emma did not prescribe medication which can help with incontinence as these are not recommended when the kidneys are compromised.

Emma suggested Tara be put on a kidney diet. Many of these diets are chicken based and unfortunately, Tara had become allergic to Chicken in her later years, why this happened, we do not know, she ate lots of chicken when she had her litter in 2000, and there was no affect to her health then.

After phone calls to various manufacturers, Emma, discovered that the Hills tinned k/d food (as opposed to their dry kibble k/d food) was not chicken based, so it was recommended we change Tara to the tinned Hills k/d diet. Initially Tara had diarrhoea but Emma asked us to continue giving it to her for a while longer to see if she settled down.

Following Tara’s health tracker, you will see that for months, Tara had a dreadful time with sickness, diarrhoea, urine infections, pain and collapse.

Initially this was put down to her kidney condition, but Malcolm and I were not entirely convinced, as her symptoms were the same as when she ate chicken. We rang Hills and discovered that the tinned kidney diet is actually sprayed with hydrolysed chicken fat to make it more palatable, this means the protein is removed from it, and it was thought that therefore, this would not cause a problem!

I phoned Burns Pet Food, as Tara had eaten their food most of her life and had encountered no problems with it. They suggested I feed 100g Fish and Brown Rice, but add to it 50g of their Hypoallergenic Mixer to reduce the protein and phosphorus content; this is essential for dogs which have renal problems.

http://burnspet.co.uk/dog/prescription_diets.asp

We spoke with Emma, and said we wanted to change Tara’s diet back to Burns, to check if it was the food which was causing the tummy upsets and collapse, as it was clear Tara could not cope much longer, Emma agreed to this.

Since we changed Tara back to Burns food, she has not looked back, and as you can see on the health tracker, Tara’s dietary problems stopped, and the food change did not overly affect her blood results.

Tara’s story shows how ill a dog can be if it is eating a food that it is allergic to! We are convinced Tara would not be still with use now if she had continued with the k/d diet......

Measuring Urine Specific Gravity (USG)
A Refractometer (a hand held scientific instrument), is used to measure and monitor USG, this is another good indication of kidney function. A rising scale of numbers are read by placing a drop of urine onto the slide, normally USG should read 1040+ which means a dog is concentrating its urine well. A reading of 1012 or below is cause for concern, as there is no concentration to the urine - it is then equivalent to the dog excreting water.

I have a Refractometer, so was able to monitor Tara’s readings, Emma asked me to test this on a daily basis, (first wee of the day), and measure how much water was being drunk in a 24 hour period. Now I only have to test USG intermittently, to keep an eye out for any changes. I have to inform Emma if Tara’s USG drops below 1012 for 3 consecutive days

Tara’s urine result, at its lowest, was only 1010 however, since her return to Burns foods at the end of August it has slowly risen, and now averages at 1022, although still low, it is not as bad as her earlier readings.

Latest Update
On 14 October Malcolm and I came home to find Tara collapsed on her side with her head in the water bowl! It was clear she could not move, and I instantly lifted her head out of the water and lay it on a towel, Malcolm and I tried not to panic!

Tara was breathing, but it was shallow, her eyes were open and moving, I took her pulse, which was only 48 beats per minute (normal range is 70-120 depending on size of dog), her tongue was blue and her gums grey. Approximately 10 minutes later, she rolled onto her tummy and lifted her head, another 10 minutes later she stood, shook herself and lay in her bed. After 15 minute’s rest, she was up and demanding her dinner!

I continued to monitor her pulse throughout the day and it took about an hour to rise back to ‘normal’. It is thought she had a mini “stroke”, and for about 24 hours she was very wobbly on her legs and her coordination was not good.

However, I am pleased to report, Tara, now plods along fairly well, although she is still a little unsteady on her legs she enjoys life very much, and more than anything really enjoys her food!

In the early months of Tara’s diagnosis, Malcolm, I and Emma all agreed; quality of life, as opposed to quantity was the priority now for Tara. We shall keep her comfortable and pain free, but there will be no invasive procedures.

How much longer we will have her for, we do not know, she is after all, a good age, however, we know with the help of the Health Tracker and a responsive Vet, we are doing our very best for her.

Sandra Jeffries
Donated items, together with goods purchased at concessionary prices, made a wonderful collection of thirty-one Wheaten items entered into the most recent WHI on-line auction.

Bidding was brisk throughout the ten days of the auction and ended with some surprising final figures.

A beautiful Darcie Olson limited edition puppy print took pride of top place, closely followed by two items with similar unique qualities: a book on ‘How To Raise a Wheaten Terrier’, published in 1965 and still in its original wrapper, and also a limited edition ‘Wheaten Terrier Red Hat Doll’.

However, the star item was released as the main auction ended. The most beautiful handmade patchwork quilt, crafted with great care and attention to detail, drew worldwide bids from many hopeful winners. Grateful thanks from the WHI steering group go to our supporter who offered this unique gift, so that the monies raised would be used for the benefit of the breed which she so loves.

Overall the amount realised after payment of E-Bay final fees of £78.15, was in excess of £500. This amount will be used with the same care and attention to achieve our objectives as the quilter gave to her craft.

Malcolm Jeffries

STOP PRESS:
Watch out later this year for details of another wonderful item from this kind and generous WHI supporter!

It was with sadness that I received the news of the death of Andrew Nash in November 2010. Andrew was associated with Wheats from the early 1980s, and in partnership with the SCWT Club of GB, he set up the Soft Coated Wheaten Terrier Renal Dysplasia Monitoring Scheme at Glasgow University Veterinary School in 1984.

I was lucky enough to be Health Secretary for much of the time Andrew was associated with the research and I know just how much care and time he gave to breeders who faced problems in respect of RD.

Not only was Andrew dedicated to this research programme, he was also a thoroughly lovely man and the breed was privileged to have him as its investigator into RD. Without his advice on setting up the testing programme and his dedication in conducting it, taken together with the recommendations of geneticist Dr Bruce Cattanach on breeding strategies, that were promoted by the Club, the breed could very well have faced great difficulties. Instead, the problem was brought under control although not eradicated, as the deleterious gene remains in the background of Wheats worldwide to this day. Fortunately because of the Glasgow research programme headed by Andrew, breeders remain aware of the problem and most carry out blood tests of sires, dams and progeny and also ensure that DNA is stored at the Animal Health Trust, ready for a time when further breakthroughs in knowledge and research may come about.

If you would like to read Dr Nash’s official obituary it can be found at http://www.universitystory.gla.ac.uk/biography/?id=WH1208&type=P

Jan Thackray

Robert Louis Stevenson

You think dogs will not be in heaven? I tell you they will be there long before any of us.

Robert Louis Stevenson

**WHI Massive On-Line Auction**

**20 to 31 October 2010**

**Professor Andrew Nash : 1944 - 2010**

**Malcolm Jeffries**
Recently, I was contacted by one of my puppy owners (a bit of a misnomer as said “puppy” has just celebrated her 14th birthday!) However, the owner mentioned that she had purchased a therapy jacket for the dog, as she felt that sometimes she was a little restless in a typical “old lady” fashion and seemed uncomfortable and reluctant to settle down. The jacket had been originally designed to help dogs with noise sensitivity, such as fear of thunder and fireworks but it had proved effective for many other situations, such as travel sickness.

The discussion led to me remembering an alternative therapy course I attended many years ago, when I saw an extremely stressed German Shepherd brought immediate and astonishing relief by a “Tellington Touch” (TTouch) practitioner, through the technique of “wrapping”. This basically involves a wide, elasticated bandage applied to the dog in a specific way which exerts gentle pressure on key points; fundamentally, the same principle as the one which the jacket was based on. In fact I later found out that the jacket is produced by the TTTouch organization!

I immediately began to relate this to a situation which has gone on since puppyhood with my young male Wheaten, Cameron. He is the first dog we have owned who has not taken to car travel; he does not make a fuss or whine and he isn’t sick but he is reluctant to get in the car and salivates profusely during the journey. I tried several types of branded treatments without great success but I started to think if “wrapping” might offer him the reassurance and comfort he needed.

It was a fact that he was always worse on the outward journey rather than when coming home and when we are away on holiday, it is hardly noticeable at all, which made me think he might respond well to this type of therapy, so I lost no time in trying it out..

The next couple of car journeys were certainly a big improvement; rather than both his front legs being wet to the elbow, it was just the end of his toes on one foot which were slightly damp. I decided to investigate the therapy jacket, mentioned by Tilly’s owner for a more easy-to-use solution. They are called “Thundershirts” and can be seen on the American website: www.thundershirt.com although they are also available through several UK outlets. I ordered one for Cameron and it was with me within the 3 to 5 day time frame given on the website. It is important to follow the instructions carefully when using this kind of therapy, as it can always cause more problems than it solves, if it is approached the wrong way.

The first real trial was the trip to Manchester Ch Show last week; quite a journey from Wiltshire to Stafford and back! On both occasions, Cameron’s legs were again almost dry and he seemed less reluctant to get in the car, too.

I will continue to use the jacket and let you all know in the next Newsletter, whether it has provided the long term solution, we hope for. In the meantime, those of you who may have travel-sick, noise-sensitive, nervous or excitable dogs may like to check out the website.

Lynn Carter

Cameron wearing his “Thundershirt”
Understanding Kidney Disease

After a phone call recently WHI were asked if we could explain the differences of the hereditary diseases which can affect our breed and print the Charts.

The following information is available on our web site: www.wheatenhealthinitiative.com however, we are very aware that not everyone has internet access. You can also purchase the WHI Health Handbook which includes this information.

Renal Dysplasia (RD)
a developmental or genetic defect of the kidneys. Dogs affected with renal dysplasia have kidneys that did not properly develop when the foetus grew in the uterus and so are born with the problem. Unhealthy or malformed nephrons in the kidney are replaced by fibrous tissue and microscopic cystic lesions in the renal cortex and decreased immature foetal glomeruli and cystic glomeruli. Eventually the kidney cannot do its job of cleansing the blood.

Dogs with Renal Dysplasia need to drink and urinate frequently. They cannot concentrate their urine making it very dilute and pale in colour. There are various levels of arrested development in affected puppies. Therefore, some puppies show symptoms of kidney disease at, or shortly after birth, while others develop symptoms later in life.

Up to 70% of the kidney can be damaged before any signs of illness can occur.

With RD and Renal Failure dogs tend to lose little protein in their urine, and their albumin levels seen in blood (serum albumin), usually remains normal.

Protein Losing Diseases:

Renal Dysplasia (RD) Protein Losing Enteropathy (PLE) and Protein Losing Nephropathy (PLN) can be difficult to diagnose. They usually affect the dog in middle age 4-7 years but there have been cases when the dog is as young as 15 months or as old as 14 yrs. With PLE & PLN dogs lose protein over a length of time.

The initial stages of these diseases may be mistaken for liver, glandular or other enteric or kidney diseases. Wheatens with PLE and/or PLN may have serious thromboembolic events (such as pulmonary embolism) before symptoms or renal failure start, even before there is increased serum creatinine or Urea (Urea). RD and PLN both affect the kidney and the main difference in diagnosis of these diseases is to establish if the dog is losing protein. This can be checked by your Vet taking a blood and urine test.

Wheatens who exhibit signs of kidney failure need to have careful diagnosis made, as RD and PLN can be mistaken for each other in the later stages of the disease process. The chart below assists with this.

### Renal Dysplasia (RD)

- Usually referred to as Juvenile Renal Dysplasia. Dogs generally die between the ages of 6 weeks to 3 years.
- Dogs drink large amounts of water. Their Urine Specific Gravity (USG) is often low and the urine is dilute.
- Dogs tend to lose little protein in the urine and the serum albumin stays normal.
- Dogs eventually have high serum creatinine and Urea (BUN). Dogs do not have low albumin and high cholesterol.
- Dogs are born with small, malformed kidneys.
- In the renal cortex are microscopic cystic lesions, decreased and immature foetal glomeruli and cystic glomeruli.
- Dogs are not usually predisposed to effusions and thromboembolism (clots).

### Protein Losing Nephropathy (PLN)

- Dogs tend to show their illness at 5-7 years old, but onset can be both earlier and later than this.
- Dogs may not have these symptoms and can usually concentrate their urine until they reach end stage renal failure.
- Dogs lose large quantities of protein in the urine and their serum albumin drops. They also have a high protein/creatinine ratio.
- Dogs eventually have high serum creatinine and Urea (BUN). Dogs have low albumin readings and high cholesterol.
- Usually have normal sized kidneys until later stages of the disease.
- Dogs show glomeruli changes, such as glomerulonephritis and/or glomerulosclerosis. They do not have many foetal glomeruli.
- Dogs can throw clots, in the lung, heart, brain, portal vein or distal aorta (saddle).

### Differences between RD and PLN

<table>
<thead>
<tr>
<th>Renal Dysplasia (RD)</th>
<th>Protein Losing Nephropathy (PLN)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usually referred to as Juvenile Renal Dysplasia. Dogs generally die between the ages of 6 weeks to 3 years.</td>
<td>Dogs tend to show their illness at 5-7 years old, but onset can be both earlier and later than this.</td>
</tr>
<tr>
<td>Dogs drink large amounts of water. Their Urine Specific Gravity (USG) is often low and the urine is dilute.</td>
<td>Dogs may not have these symptoms and can usually concentrate their urine until they reach end stage renal failure.</td>
</tr>
<tr>
<td>Dogs tend to lose little protein in the urine and the serum albumin stays normal.</td>
<td>Dogs lose large quantities of protein in the urine and their serum albumin drops. They also have a high protein/creatinine ratio.</td>
</tr>
<tr>
<td>Dogs eventually have high serum creatinine and Urea (BUN). Dogs do not have low albumin and high cholesterol.</td>
<td>Dogs eventually have high serum creatinine and Urea (BUN). Dogs have low albumin readings and high cholesterol.</td>
</tr>
<tr>
<td>Dogs are born with small, malformed kidneys.</td>
<td>Usually have normal sized kidneys until later stages of the disease.</td>
</tr>
<tr>
<td>In the renal cortex are microscopic cystic lesions, decreased and immature foetal glomeruli and cystic glomeruli.</td>
<td>Dogs show glomeruli changes, such as glomerulonephritis and/or glomerulosclerosis. They do not have many foetal glomeruli.</td>
</tr>
<tr>
<td>Dogs are not usually predisposed to effusions and thromboembolism (clots).</td>
<td>Dogs can throw clots, in the lung, heart, brain, portal vein or distal aorta (saddle).</td>
</tr>
</tbody>
</table>
Understanding The Diagnosis of RD, PLN, PLE & Addison’s Disease

These diseases can be difficult to diagnose and can be confused with each other. Here are some of the similarities and differences.

<table>
<thead>
<tr>
<th></th>
<th>RD</th>
<th>PLN</th>
<th>PLE</th>
<th>Addison’s</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age of Onset</strong></td>
<td>&lt;1-3 years</td>
<td>Mean ~ 6 years</td>
<td>Mean ~ 4.5 years</td>
<td>Young (in general)</td>
</tr>
<tr>
<td><strong>Sex Predilection</strong></td>
<td>None noted</td>
<td>Female: male=1.6</td>
<td>Female: male=1.7</td>
<td>Female (in general)</td>
</tr>
<tr>
<td><strong>Polyuria/Polydipsia</strong></td>
<td>Yes</td>
<td>Only25% had PU/PD</td>
<td>No, unless on steroids</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Vomiting/Diarrhoea</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Ascites/Edema</strong></td>
<td>No</td>
<td>Possibly</td>
<td>Possibly</td>
<td>No</td>
</tr>
<tr>
<td><strong>Azotemia</strong></td>
<td>Yes</td>
<td>Eventually</td>
<td>No</td>
<td>Possibly (pre-renal)</td>
</tr>
<tr>
<td><strong>Kidney Size</strong></td>
<td>Small</td>
<td>May be normal</td>
<td>Normal</td>
<td>Normal</td>
</tr>
<tr>
<td><strong>Hypoalbuminemia</strong></td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Possibly (melena)</td>
</tr>
<tr>
<td><strong>Hypoglobulinemia</strong></td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Possibly (melena)</td>
</tr>
<tr>
<td><strong>Hypercholesterolemia</strong></td>
<td>No</td>
<td>Yes</td>
<td>Hypocholesterolemia</td>
<td>No</td>
</tr>
<tr>
<td><strong>Low Na/K ratio</strong></td>
<td>Not noted</td>
<td>Rarely (~10%)</td>
<td>Rarely (~10%)</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Urine Specific Gravity</strong></td>
<td>Isosthenuria</td>
<td>Mean 1.023</td>
<td>Mean 1.033</td>
<td>Low (medullary washout)</td>
</tr>
<tr>
<td><strong>Proteinuria</strong></td>
<td>None or mild</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td><strong>Histopathology</strong></td>
<td>Foetal kidney Glomeruli, Foetal mesenchyme (K)</td>
<td>Glomerulonephritis, Glomerulosclerosis (K)</td>
<td>IBD, lymphangiectasia, lymphangitis (I)</td>
<td>No</td>
</tr>
<tr>
<td><strong>K = kidney</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>I = intestine</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: 1999 ACVIM PROCEEDINGS Soft Coated Wheaten Terrier PLE-PLN; Meryl P. Litman VMD DACVIM, Philadelphia PA
Other important lab findings:

**Remember:** diagnosis of PLE/PLN, RD, or Addison’s is dependent on evaluating everything – test results, clinical signs and symptoms – so do not assume one “bad” item means your dog has these diseases.

<table>
<thead>
<tr>
<th>RD</th>
<th>PLE</th>
<th>PLN¹</th>
<th>Addison’s²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elevated Creatinine</td>
<td>Eosinophilia</td>
<td>Elevated Serum Creatinine</td>
<td>Elevated Serum Creatinine</td>
</tr>
<tr>
<td>Elevated BUN</td>
<td>Lymphopenia</td>
<td>Elevated BUN</td>
<td>Elevated BUN</td>
</tr>
<tr>
<td>Low total protein</td>
<td></td>
<td>Elevated Urine Protein Creatinine Ratio*</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>*very important!</td>
<td></td>
</tr>
</tbody>
</table>

**Important Information for all Participants in the pANCA Project**

As you will have seen in the Final pANCA Report pages, earlier in this Newsletter; the continuing collection of health information on the dogs who took part, is vital in order to enable accurate conclusions to be drawn in the fullness of time;

“It will be of major importance for our project, to contact us if there are any changes in your dog’s health. Questionnaires regarding your dog’s health can be downloaded (www.wheatenhealthinitiative.com) and we would be grateful to receive such information approximately every 6 months.”

Questionnaires can be downloaded from the Wheaten Health Initiative site and may be printed off and posted to Dr Allenspach at the RVC or sent directly to the RVC by e-mail, through the link on the WHI website. We wish to assure everyone that all information remains confidential between the owner and Dr Allenspach and is not accessible by WHI or any other organisation.

In order to maintain meaningful six-monthly intervals, it is suggested that questionnaires are completed in February and September each year; however, any changes in your dog’s health status between these dates should be notified to Dr Allenspach, when they occur. We will endeavour to remind everyone, through the usual channels, at the appropriate times.

---

**The Rising Profile of the Wheaten Health Initiative Website**

Of course the remit of Wheaten Health Initiative is just what it says “on the tin”; Wheats and their health and well-being, however, it is always rewarding when we realise that all the hard work which goes into our website and the documents we produce have a much wider impact than we might anticipate.

In 2010 we were approached by someone who had been searching the internet for some specific, health-related information and had found some related material on our website. She contacted us for further advice as she was the President of a newly formed Breed Club devoted to the Entlebucher Mountain Dog and was hoping to find an alternative to their current problems in accessing pre-breeding health screening tests for an hereditable condition.

The existing system required them to travel to Switzerland for the test; a very much less than ideal situation and, although she had explored every avenue she could think of, she had failed to find anyone who could help. Through our links with the KC and our existing relationship with Dr Allenspach at the RVC, we were able to act as intermediaries and arrangements for the appropriate tests to be made available within the UK are underway. We were surprised and pleased to read the following, in the Entlebucher breed notes in Dog World some weeks later:

“In addition we have now found that it is likely to be possible to undertake testing for ectopic ureter in this country through the Royal Veterinary College, which will hopefully save a long trip to Zurich….. Our grateful thanks go to the Wheaten Health Initiative for pointing us in the right direction.”

R. Kind
CONTACTS

Kate Watkins  (Secretary)  01534 684864
Ian Carter     (Chairman)    01793 765253
Malcolm Jeffries (Treasurer) (Webmaster) 01246 554742
Jan Thackray          01132 525206
Lynn Carter           01793 765253
Sandra Jeffries       01246 554742
Sarah Watkins         01543 684864

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

Email: wheatenhealth@aol.com
Website: www.wheatenhealthinitiative.com

I've seen a look in dogs' eyes: a quickly vanishing look of amazed contempt, and I am convinced that dogs think humans are nuts.

John Steinbeck

© All content is the property of Wheaten Health Initiative and may not be reproduced in any other publication without permission
This chart is not intended to alarm you or to suggest that your Soft-Coated Wheaten Terrier has inherited any of the diseases it describes. It is purely to provide information for your Vet and yourself.

**Comparison Chart of Hereditable Diseases**

There are four hereditary diseases known to affect the breed.

<table>
<thead>
<tr>
<th>DISEASE</th>
<th>SYMPTOMS</th>
<th>LABORATORY ABNORMALITIES OFTEN ASSOCIATED WITH THIS DISEASE</th>
</tr>
</thead>
</table>
| **Renal Dysplasia (RD)**     | **Symptoms**: Increased water consumption, Increased urination (dilute urine), Poor doer, decreased appetite, Vomiting
                                      | **Laboratory Abnormalities**: Low urine specific gravity, Elevated creatinine and BUN, Small kidneys, Small, hyperechoic kidneys with or without cysts seen via abdominal ultrasound |
| **Protein Losing Enteropathy (PLE)** | Vomiting, Diarrhoea, Weight loss, Ascites, oedema, pleural effusion | Note that not all of the laboratory abnormalities are seen in every case. The most important are indicated by an asterisk. Hypoalbuminemia*, Hypoglobulinemia*, Eosinophilia, Hypocholesterolemia, Lymphopenia |
| **Protein Losing Nephropathy (PLN)** | Listlessness/depression, Decreased appetite, vomiting, weight loss, Ascites, oedema, pleural effusion. Increased water consumption, increased urination (less common) Thromboembolic phenomena and hypertension (less common) | Note that not all of the laboratory abnormalities are seen in every case. The most important are indicated by an asterisk. Hypoalbuminemia*, Elevated serum creatinine, BUN (later), Hypercholesterolemia, Elevated MA (Microalbuminuria), Elevated urine protein/creatinine ratio* |
| **Addison's Disease**        | Decreased appetite, vomiting, diarrhoea, weight loss. Inability to handle stress, Sudden collapse, Slow heart rate | Decrease in Na/K ratio (Sodium/potassium ratio), Abnormal ACTH stimulation test, Elevated serum creatinine, BUN Sometimes, low urine specific gravity |

Further information on all of these diseases can also be found in the 'Health Matters' section at: www.wheatenhealthinitiative.com and the health section of the SCWT Club of America's Web Site: www.scwtca.org