

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

# **NEWSLETTER**

No. 11. March 2006

#### **EDITORIAL**

First of all I would like to wish everyone a very happy New Year. May it bring everything you hope for.

The steering group have been very busy again. Saturday the 11<sup>th</sup> February saw the celebration of the 3<sup>rd</sup> anniversary of the foundation of Wheaten Health Initiative and a party was held to celebrate the occasion with an open invitation issued to all. The event was well attended and apologies were received from those who were unable to make it due to prior engagements. We would like to thank all those who came for making the day such a relaxed and enjoyable one. We all felt that this was a very worthwhile event.

Whilst the day was designed to be a social occasion there was also a serious side to many of the subjects raised in discussion and many excellent ideas were put forward for future development and fund raising.

It was clear, from the topics discussed, that the take-home message was that every individual needs to be prepared to take on an active role in order to effect change and that, particularly where health issues are concerned, each owner or breeder shares equal responsibility in securing a healthy long-term future for the Soft-Coated Wheaten Terrier.

With a very successful seminar and our birthday celebrations now behind us, I would like to reflect on some of the group's main achievements during the past year:

- 1. In February 2005, following on from preliminary talks in the previous September with Dr. Ken Smith and Dr. Cathryn Mellersh BSc PhD from the Animal Health Trust which established the Trust's interest in investigating hereditary diseases in the SCWT, a protocol was set up for testing Wheatens for diseases such as PLE and PLN. This had the additional benefit of standardising laboratory fees for Wheatens all over the country, ensuring that all samples submitted were tested to the same protocol and encouraging the storage of DNA for future genetic research.
- 2. In March 2005 work commenced on an information pack about testing for SCWT owners and their vets.
- A Seminar on Genetics by Dr. Neil O'Sullivan (USA) was organised for April, which unfortunately had to be cancelled at the last minute due to his partner's ill health.
- 4. In August Dr. Mellersh agreed to do a seminar for WHI in the Autumn on Genetics.
- In October, Dr. Karin Allenspach med. Vet. FVH, DECVIM-CA, was recommended to us as a possible speaker. Dr. Allenspach, who had recently started lecturing at the Royal Veterinary College's Queen Mother Hospital, agreed to partner Dr. Mellersh at our Genetic Seminar arranged for November.
- Two booklets: 'Breed Specific Health Services available at the AHT – Information for Veterinarian and Owner' and the first two

- sections of the 'Wheaten Health Handbook' were completed in time for release at the seminar.
- A successful Seminar took place in November with Dr. Mellersh speaking on "Basic Genetics, DNA, Genes and how mutations cause inherited diseases in dogs" and Dr. Allenspach speaking on "PLE and PLN in the SCWT".
- 8. In response to enthusiastic feedback from the Seminar attendees, a UK Genetic Research Fund was launched with an initial £1000 donation from WHI funds. A further £1,030 is also pledged by well-wishers for genetic research.
- A second fund raising Silent Auction was held via our Web Site in February this year and raised in excess of £600 for continued work on health matters.
- Then, on the 11<sup>th</sup> February 2006, the group celebrated 3 years of working for the health of the Soft-Coated Wheaten Terrier.

(I am unable to give you the exact amount of the Genetic Research Fund in this Newsletter as our Treasurer is at present in New Zealand and only left me with the cheque book!! He did mention that he would be returning!! Watch this space)

I am sure you will all agree that it has been a very successful year.



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A new face - who is this??



Find out more on page 3

# UNDERSTANDING PROTEIN-WASTING DISEASES IN WHEATEN TERRIERS

PURINA Pro Club Terrier Group Update Vol.3, No. 2; July 2005 Reproduced by kind permission of 'Benchmarks'

Soft-Coated Wheaten Terriers, an Irish breed known for its alert, happy disposition, is also known for being predisposed to two protein-wasting diseases. Protein-losing enteropathy (PLE) and Protein-losing Nephropathy (PLN) are diseases in which dogs lose so much protein into their gastrointestinal system or kidneys that it can affect their health.

PLE affects the gastrointestinal system; PLN affects the kidneys. While some Wheatens develop only one disease, others get both. Some dogs show no clinical signs, whereas others have life-threatening signs. The prognosis is often fairly poor, but current research may make a difference.

## A Genetic Component

Shelly Vaden, D.V.M., Ph.D., Professor of internal medicine at North Carolina State University College of Veterinary Medicine in Raleigh, has been studying PLE and PLN in Wheaten Terriers for the past 10 years. "Both syndromes undoubtedly have a familial or genetic component, "she says. "But they also are most likely influenced by environmental factors. The extent to which these environmental factors influence disease expression is not fully known."

Food allergies may be one environmental influence that impacts the manifestation of the syndromes. "We know that food allergies are prevalent in affected dogs, but we don't know if they are a cause or a result of the disease," Vaden says.

"PLE is one of the most severe manifestations of inflammatory bowel disease," Vaden says. Signs may include diarrhoea, anorexia, lethargy, weight loss, oedema or ascites (fluid in the abdominal cavity), and respiratory difficulty from fluid in the chest

Commonly PLE and PLN appear around 4 to 6 years of age, with no gender predilection. One of the complex aspects of the syndromes is that every dog is different. Some with minimal signs die quickly, yet those with serious manifestations can be managed and do well. "It has to do with differential expression of the disease, but it has not been established whether this is due to genetic differences or environmental differences," Vaden says.

## Seeking a GeneticMarker

Reports of PLE and PLN occurring in closely related Wheatens were first noted in 1990 by Meryl P. Littman, V.M.D., DACVIM, of the University of Pennsylvania School of Veterinary Medicine, who collaborates on PLE/PLN research with Vaden. They hope to find a genetic marker for both conditions. Once a marker has been identified, breeders will be able to test their dogs to determine which ones carry the PLE and PLN genes and thus which ones to avoid breeding.

"Dr. Littman reported data from 222 affected Wheatens of which 34 percent had PLE, 38 percent had PLN, and 28 percent had both PLE and PLN," Vaden says. "The incidence of sub-clinical PLE or PLN (meaning dogs with PLE or PLN that are below the clinical limit of detection of the other syndrome) has not been determined. Lack of a genetic marker and a uniform screening program in the atrisk population may result in an underestimate of the disease prevalence."

# Firsthand Experience

Nancy Land in Bluffton, S.C., had a Wheaten named "Hotsie" who developed both diseases. "Routine testing alerted me to possible problems when Hotsie was 7 years old," Land says. "She had diarrhoea and vomiting in the early stages, but it was corrected with medication."

No other disease was found, so her veterinarian conferred with Littman. Testing consisting of a biochemical profile, complete blood count, routine urinalysis, urine protein/creatinine ratio, MA test for microalbuminuria, and a fecal API test determined Hotsie suffered from both syndromes. On hypoallergenic diet and medication, Hotsie lived for three years after diagnosis. "Because of the outstanding work the researchers have made on PLE and PLN, she enjoyed a good quality of life," Land says.

Sara Schlough of McFarland, Wis., raises Wheatens that participate in agility, tracking, obedience, conformation and fly ball. Her dog "Elmo" was 6 years old when he was diagnosed with PLN. "That's the age many Wheatens die of these diseases, so that's partially why I decided to do the API test. Elmo had a little less energy, but we thought it was age." Elmo also had sebaceous cysts, a skin condition causing itchy feet, and he would chew his feet raw.

After the API test and other testing that indicated PLE/PLN, Schlough switched to a hypoallergenic diet, and Elmo stopped chewing his feet and the cysts cleared up.

"If an owner health tests his dog following our researchers' testing protocol and PLE or its underlying disease is identified early, you can use dietary management as part of the treatment to improve the quality of the dog's life" says Janet Petros of San Francisco. Petros lost over half of her breeding program to PLE/PLN syndromes. Of the five Wheatens at home now, three are diagnosed with either PLN or PLE and are being medically managed. Many puppies from that line are being medically managed as well.

"In 1986, I purchased a show bitch, bred her once, and a puppy died of renal failure at age 2," Petros says. "After consulting with the veterinary renal specialists, who thought this puppy might have died of renal dysplasia (RD), we immediately started to ultrasound test all of our dogs' kidneys. We found that one of the littermates had slight kidney abnormalities. However, her dam tested within the normal ranges. The specialist we were working with saw no reason not to breed the dam again, but with careful selection of the sire. I bred her again into another line with no reported incidents of RD. She lived a healthy life until she was shockingly diagnosed with PLE/PLN at 10. My heart sank."

After Petros's foundation bitch turned out to have PLN/PLE, she stopped breeding and decided to educate other breeders and owners about the syndromes. While serving as the health chairwoman for the national parent club for three years and a member of the board of directors and vice president of the Soft-Coated Wheaten Terrier Endowment Board, Petros felt that members needed to be more informed.

"I took Vaden (Shelly Vaden, D.V.M., DACVIM of North Carolina State University College of Veterinary Medicine) and Littman's (Meryl P. Littman, V.M.C., DACVIM, of the University of Pennsylvania School of Veterinary Medicine) information and created a seminar. I was the presenter, a conduit for their knowledge from research and practice. I wanted to give information that was easy to understand and that was truthful."

She took her show on the road and gave 15 seminars in the United States and Canada, and one in Great Britain. It was a daylong seminar, and each participant took home a hardcopy of the presentation.

## **Determining PLE/PLN**

To help determine PLE/PLN in Wheaten Terriers, Vaden recommends having a health screening at 6 months of age and every 6 months thereafter until a dog is 3 years old. After that, an annual screening is fine. She recommends the following screening tests and encourages owners to ask their veterinarian to run all the tests because some are not routine.

Biochemical profile

Total protein
Albumin
Creatinine
Blood urea nitrogen
Cholesterol
Sodium (Na)
Potassium (K)
Phosphorus

- Complete Blood Count
- Routine Urinalysis
   Specific gravity
   Dipstick
   Urinary sediment

- Urine Protein/Creatinine Ratio
- The ERD or MA Test for Microalbuminuria (Optional an indicator of early disease)
- The Fecal API Test (Optional an indicator of early disease)

The fecal API, or fecal alpha 1-proteinase inhibitor, is a good screening tool for PLE, even before other clinical signs develop, Vaden explains. Awareness of the MA test for microalbuminuria is increasing among veterinarians. Neither of the tests provides a definitive diagnosis as other conditions can cause an abnormal fecal API or MA result. "I think this causes frustration in folks who want an absolute answer. Unfortunately, in medicine, that is not always possible," Vaden says.

Additionally, the health committee made available to owners and breeders a Fecal API & MA screening tool kit. These are not stand-alone tests and should be used in concert with the researchers' recommended blood and urine tests. The kit contains instructions on how to appropriately collect fecal samples for three consecutive days and to take a urine sample. It also details how to freeze the samples and prepare the included cooler/gel packs for shipping to Vaden for testing. For information, visit <a href="www.scwtca.org/fecalapi.html">www.scwtca.org/fecalapi.html</a> or e-mail Toni Vincent at FecalAPIKit@aol.com.

# A Bright Future

Though both conditions, protein-losing enteropathy (PLE) and protein-losing nephropathy (PLN), can be difficult to determine and sometimes even harder to manage, progress is being made in better understanding the conditions. The future looks bright for Irish Wheatens as scientists work to find the genetic markers for both conditions.

As Petros says, "We have come a tremendous way as a result of the researchers' hard work."

Editor's Note: Some of you will have attended on the 26<sup>th</sup> October 2003 and met Janet Petros when she presented her 'Health Notebook Seminar' which was organised by WHI. We were honoured to have had the pleasure of her company that day.



Kindly commissioned and donated by Barbara and Steve Bradford

#### Meet GT

who is raising funds for Wheaten Health.

He is one of a kind and will be regularly "campaigned" throughout the year.

And he could be YOURS!

We will be selling raffle tickets at shows up to and including the SCWT Ch Show on the 17th September, when the draw will take place. The lucky owner of the winning ticket will take this unique chap home.

All proceeds to WHI health projects.

# APPLICATION FOR MEMBERSHIP Member Benefits

Impartial, informed and sympathetic advice and assistance on health issues from the WHI team.

Should you ever find yourself facing a serious health problem, or any problem, with your Wheaten, there are experienced, caring, people at the end of a telephone who will share their knowledge with you, and who will do their utmost to ensure that you have all the information you need to make informed decisions.

Plus regular Newsletters dedicated to health matters.

- Do you care about the health of your dog?
- Do you want to belong to a group dedicated to resolving issues about your dog's health?
- Do you want to share your knowledge and experience with others?

If you answer YES to all questions - then join us!

#### Contact:

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There is no membership fee, but any donation will be appreciated to help with administration costs.

(Please make cheques payable to WHI)

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