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 following chart assists with this comparison.

## Differences between RD and PLN

## 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).