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## Introduction

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# You said “gastro-intestinal” food ? Approach of petfood diversity during a student-conducted consultation.

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## Introduction:

The choice of a petfood adapted to a clinical case is often difficult to perform by veterinary students. Indeed, between marketing, labelling, clinical data and the wide choice among available products, it is easy to be lost and to base their prescriptions on cognitive bias instead of scientific data. This presentation reports a case of protein-losing enteropathy with intestinal lymphangiectasia and its dietary management. Beyond the clinical aspect the authors want to discuss educational aspects.

## Case History:

9 years old  
Neutered male  
Polish lowland sheepdog

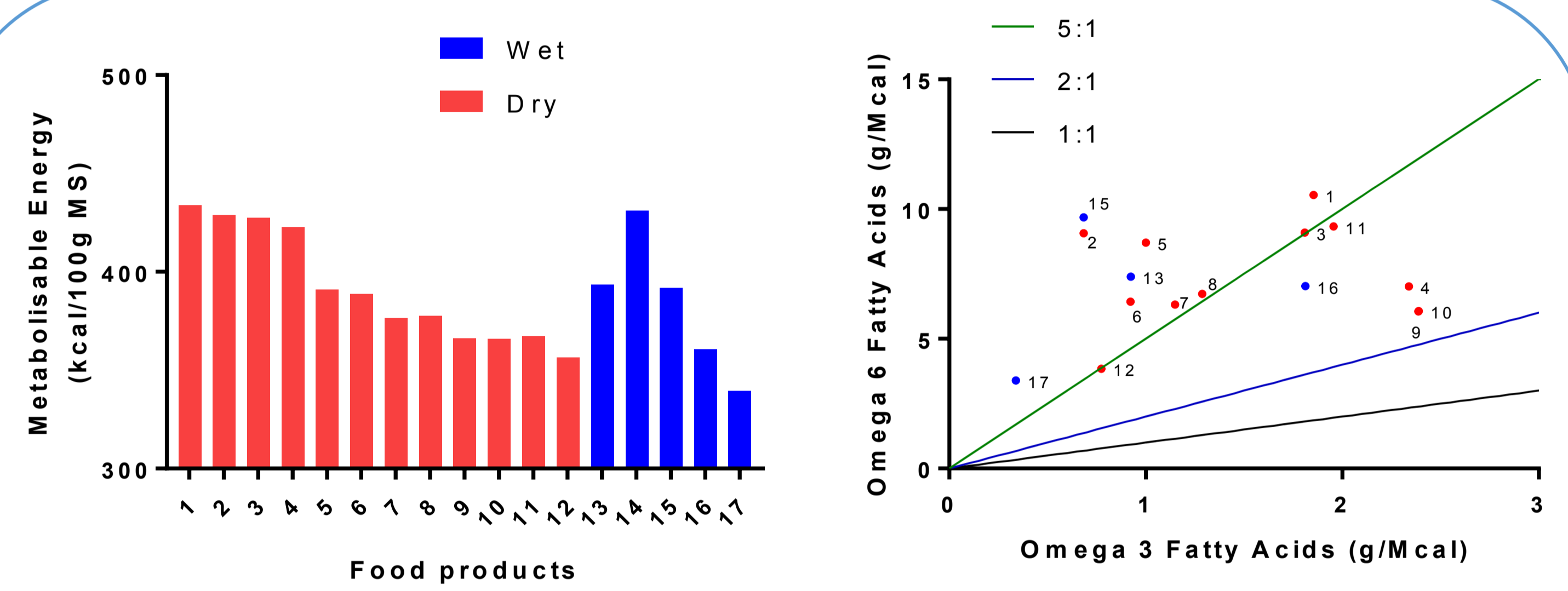
**June 2018:** Consultation at its usual veterinary clinic

- Diarrhoea with a loss of 4 kg since September 2017
- Diagnosis of protein-losing enteropathy with intestinal lymphangiectasia
- Prescription :
  - Prednisolone (1mg/kg BW)
  - Specific-purpose kibbles for gastrointestinal disorders (n°4 in figure 1)

**December 2018:** Consultation at the Nutrition Department of VetAgro Sup

- Weights 20.6kg (BCS 3/9)
- Diarrhoea diminished only slightly since June (Stool frequency: 4-5/day, consistency score: 4/5)
- A 2mg/kg BW dose of prednisolone has been tested but not tolerated by the dog.

**Consultation:** The consultation was performed by a student in the 4th year of the curriculum. As a part of case history was available before the consultation, a briefing based on literature was done before the consultation [1]. The aim of this briefing was to give students the necessary knowledge to perform the clinical reflexion, and thus to allow them to conduct the consultation as far as possible. One student took the history and led the physical examination under supervision. To help the student in the case assessment, he had a **nutrition software** and **diagrams of available food characteristics** (tools are presented in this congress [2]). Figure 1 presents some of these diagrams, the given food being number 4. According to this diagram and the briefing presenting the interest of **fat reduction** in management of protein-losing enteropathy with intestinal lymphangiectasia, the student easily assessed that this food was not the most appropriate for this case. With help of other diagrams, **he proposed to change food** for the number 9 (Hill’s i/d low fat). Then, with the software (figure 2), he estimated the MER at 1257 Kcal ME/d ( $MER=130 \times BW^{0.75}/d$ ) and made sure that needs were covered- (main nutrient intake calculated in software are resumed in table 1. **Three days after** the food change, **diarrhoea stopped**. One month later, prednisolone dose was decreased to 0.5 mg/kg BW and the calorie intake increased to 1450 Kcal ME to recover its optimal weight.

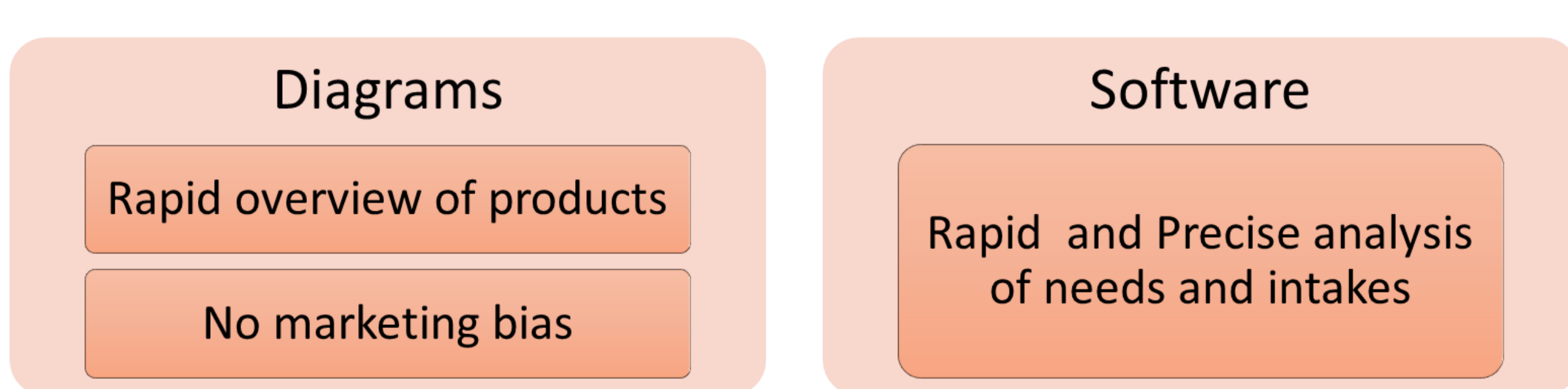


**Figure 1:** samples of the diagrams used to assess petfoods. Here specific-purpose petfoods for gastrointestinal disorders

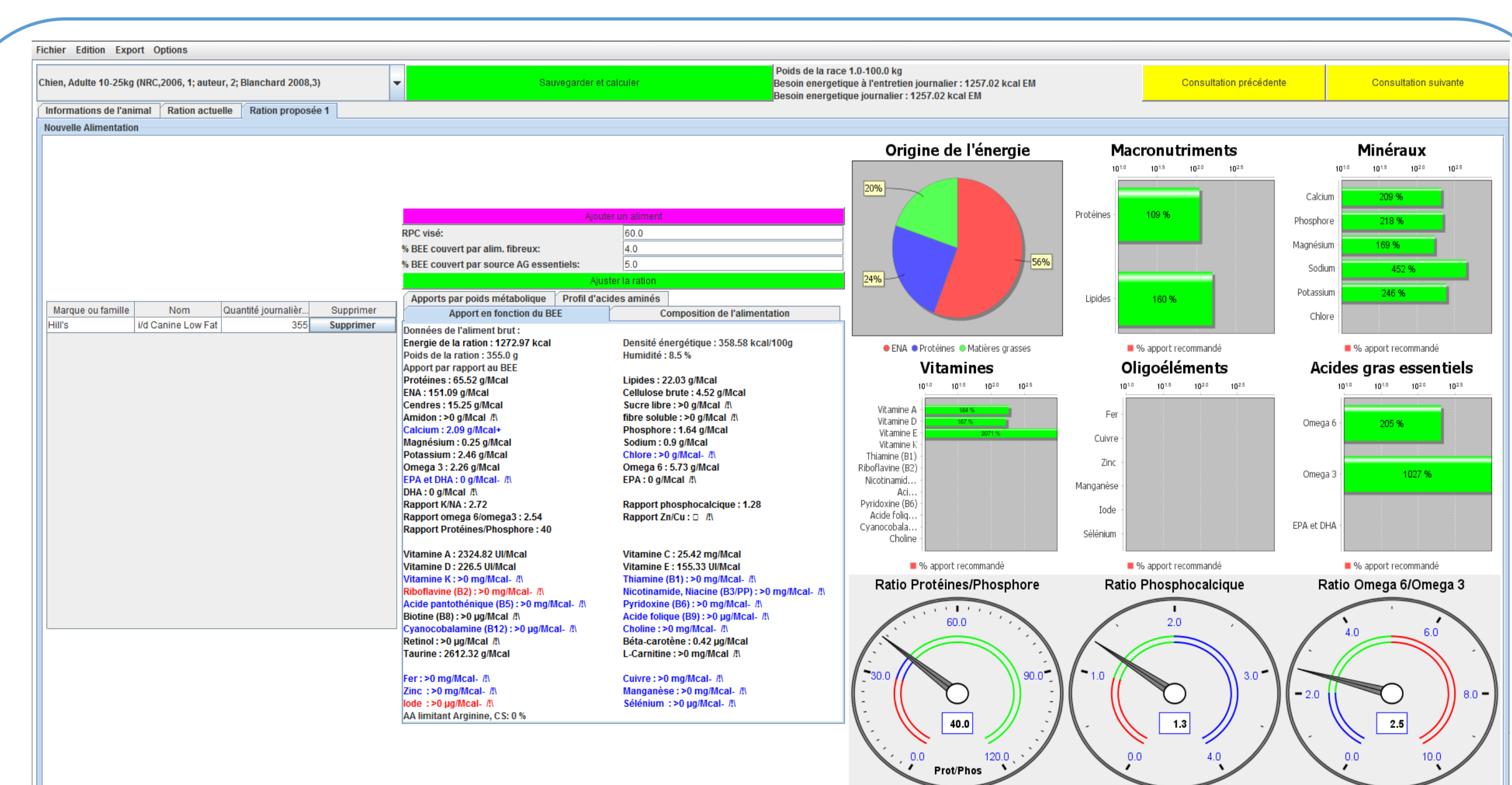
Diet (petfood diagram number)	Initial (n°4)	Prescribed (n°9)
Calorie intake (kcal of ME)	1 357	1 272
Protein intake (g/kg BW <sup>0.75</sup> )	12.3	8.5
Fat intake (g/kg BW <sup>0.75</sup> )	7.9	2.8

**Table 1:** Calorie, protein and fat intakes for initial and prescribed diet, extracted from VetNutri Software.

**Conclusion:** More than clinical success, we report an approach that may popularize clinical nutrition reflexion among veterinarians by making it more achievable with the help of two complementary tools:



**References:** [1] Okanishi H et al. The Clinical Efficacy of Dietary Fat Restriction in Treatment of Dogs with Intestinal Lymphangiectasia. J Vet Intern Med. 2014. [2].Alves de Oliveira L et al. Reflexion and proposition of a tool for teaching small animal nutrition in veterinary cursus.



**Figure 2:** VetNutri software interface