

EXPERT OPINION

**on doctoral thesis elaborated by M.Sc. Ranjani Amarakoon entitled:
"The effect of cooking on nutritive quality of selected legumes."**

The submitted doctoral thesis is focused on characterization of some legume varieties from point of view of different methods of cooking that together with pretreatment of raw legume seeds show principal effect on quality and digestibility of their proteins. The aims of the research are summarized in chapter 2 – Scope of the study. Following chapter – Literature review gradually covers introduction to study area and present state of the art, summarizing actual knowledge about nutritional importance and health aspects of the consumption of the legumes and the factors which influence utilization of nutrients and enhancement of digestibility and nutritive value. In chapter 4 suggested design of experiment divided into three stages is described. These stages gradually cover characterization of individual legumes through determination of protein amino acids profile, dry matter, digestibility of dry matter, nitrogen substances and in next stages series of similar determinations carried out for raw seeds and after cooking pretreatment and for different methods of cooking will be implemented.

The next section located in second part of the above mentioned chapter summarizes suitable methods for characterization and determination of additional parameters of legume proteins including statistical analysis obtained results.

The doctoral thesis concludes overview of obtained results and suggestions for further scientific studies on this field.

The next concluding chapters contain overview of publication sources, publication and personal data of the author.

Generally, the doctoral thesis represents a wide view to study of proteins and other nutritive compounds in selected legumes including some metabolic aspect and

their digestibility. Although this thesis is composed very carefully I suggest some recommendations and question.

- 1) – a formal recommendation concerns explanation of upper indexes small letters in tables 10,12 and 13.
- 2) – an inquiry concerns explanation of the way of expression of content of crude protein per 16g of N. Can you explain why did you use this expression?

This comment and question do not influence general on very good level of presented work, which represents a thesis with wide scientific range including sufficient publication overview and I recommend to accept this document as a suitable presupposition for PhD. thesis defense and after successful defense granting its author the scientific-academic degree “philosophiae doctor” (PhD.).

Brno 09.06.2009

Miroslav Fišera, Assoc.Prof., Ph.D.
Department of Biochemistry and Food Analysis
Faculty of Technology, Tomas Bata University in Zlín