Reviewer's report

Title: The effect of botanical structure, fiber content and acetic acid on postprandial blood glucose, gastric emptying and satiety in healthy subjects, a study of wheat products with and without vinegar

Version: 1 Date: 20 December 2007

Reviewer: Martin O. Weickert

Reviewer's report:

Hlebowicz et al. investigated effects of the consumption of several wheat-based test meals served together with vinegar in comparison to white bread without vinegar, in a blinded cross-over study with 15 healthy subjects. Authors show that a whole-kernel wheat bread meal served with vinegar exerted increased satiety feelings as compared to a wholemeal wheat bread with vinegar or white bread with and without vinegar. No differences between the test meals were found regarding postprandial glucose responses and the gastric emptying rate (GER). The manuscript does adhere to the relevant standards for reporting and data deposition.

MAJOR COMPULSORY REVISIONS

The main critic point is that there was no suitable control for the whole-kernel wheat bread served together with vinegar. Therefore, it can only be stated that whole-kernel wheat bread (regardless of adding vinegar or any other substance) was more satiating than the other test meals. A comparison of the effects of whole-kernel wheat bread served together with vinegar vs. whole-kernel wheat bread served without vinegar would appear to be useful (if not essential) in this context.

SEM is not given in the figures, and therefore also does not match the information provided in the figure legends (Figures 1 and 2). Please present means +/- SEM of measured parameters.

I suggest to present absolute values both for blood glucose (please use plasma glucose instead) and GER, rather than presenting changes from baseline levels. If the authors prefer to present changes relative to the baseline in the figures, baseline values should be provided in the result section of the manuscript.

Figure 2: it is not clear which values were compared regarding significant differences. Assuming that white wheat bread without vinegar was the reference meal, I am not sure how to interprete the presented differences (i.e. â##bbâ##, + 15 min: this is unlikely to indicate a significant difference between the reference meal (white bread without vinegar) and white bread with vinegar?).

DISCRETIONARY REVISIONS
The introduction of the manuscript could be shortened.

The methods section could be shortened since some parts have been previously published in detail by the authors (i.e. the section about estimating GER, Hlebowicz et al., Nutr J 2007).

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a statistician.