

Reviewer's report

Title: Lowering the Glycemic Index of White Bread Using a White Bean Extract

Version: 1 **Date:** 10 February 2009

Reviewer: Emily Levitan

Reviewer's report:

The authors report on a small feeding study examining the effect of a commercial dietary supplement on the GI of white bread. They report that the highest dose in power form of the white bean extract was associated with a statistically significant decrease in the GI of wonder bread. I think that controlled trials of dietary supplements are very topic in nutritional research particularly given the common use of supplements in the population. However, I have several questions and concerns regarding this study.

Major revisions:

I am curious about the "Phase 2" supplement. The authors state that it has been shown to be an alpha-amylase inhibitor, but the reference they cite is about a polypeptide isolated from a *Streptococcus* species. Is there a description of the active ingredient(s) of the supplement?

The literature cited is problematic in other places as well. In some cases the statements do not seem to be supported by the referenced papers. There are also references to sources 31-35 which were not included in the review version of the paper.

Page 6: Were the test meals administered in a standard order? Random order? How far apart in time were the measurements? This could be important as there could be seasonal differences in GI response.

Page 8: It is not clear whether the questionnaires on gastrointestinal symptoms asked about only the 2 hour GI test period. I would think the full day would be important.

Page 8: Why was ANOVA used if the reported results were t-tests? Observations under different conditions in the same individuals will be correlated. It is not clear whether this was accounted for in the analysis (eg by using paired t-tests or ANOVA accounting for repeated measures within subjects).

Minor essential revisions:

Page 4: The authors should check the references for the final sentence of the first paragraph. The papers cited do not appear to support the statements on cholesterol and decreased body weight in adolescents. Also epidemiologic evidence seems slightly overstated based on the papers cited.

Page 4: The statement that “GI is more reliable...as it can predict the response in any individual” does not seem quite accurate. The evidence is that GI predicts the average response among individuals, with a fair amount of variability between individuals (as evidenced by the wide standard deviations in table 1).

Page 8: It is not clear what “triangle A”, “trapezoid B”, etc refer to. There could be a figure which labels these shapes or the method could be described in a different way.

Page 10: The lack of blinding of participants and of study staff should be acknowledged as a limitation.

Discretionary revisions:

It might be helpful to present characteristics of the study participants (age, BMI, fasting glucose, etc) to facilitate comparison to other studies.

P-values are generally only reported to 2 digits after the leading zeros.

The authors acknowledge support of the manufacturer of the supplement. It would be of interest to know more about the role of the sponsor in design of the trial, funding etc.

Are there data on taste/palatability of the supplement in powder form? This could have a major impact on the use of the supplement.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests.