

Interactive comment on “Localising the nitrogen imprint of the Paris food supply: the potential of organic farming and changes in human diet” by G. Billen et al.

G. Billen et al.

gilles.billen@upmc.fr

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We are grateful to referee 2 for his very positive general comments, and answer his specific comments below.

*1. What agricultural system was used for these calculations? Is it assumed that there is average conventional food production throughout the Seine watershed, or is the variation in food production systems considered?

Answer: As indicated in the text and in Table 1, the calculation for the reference situation is based on agricultural statistics describing the current (2006) agricultural system at the département scale.

C5307

*2. Is food waste at the consumer level considered? If not, it could be mentioned that reducing food waste would reduce the amount of food required by Paris, allowing for more exports from the Seine watershed.

Answer: This remark is quite useful. We have included a short sentence, as well as a reference, in the text about this waste issue: “Part of the consumption increase is due to higher intake, while another part is the result of higher waste generation all along the food chain (currently estimated to about 30% of the total in Europe, Gustavsson et al., 2011)”.

*Page 10983, Line 12 – A definition of départements would be useful

Answer: It has been included in the text in the Methods section. “The French départements are territorial and administrative divisions of about 7000 km², except for Paris which is a much smaller département in itself.”

*Page 10985, Lines 10-13 – More information on the N surplus calculation would be useful, including data sources and assumptions. Additionally, it would be helpful to have a statement saying that all N used in food production that is not in the crop product is lost to the environment.

Answer: The corresponding paragraph in the Method section has been completed, including with the statement about N environmental losses.

*Page 10988, Lines 18-22 – What is the N surplus of the scenarios?

Answer: These values are provided in table 1.

*Page 10998, Figure 2B – It is mentioned that data for organic farms are shown as open symbols, but I do not see any of these on the graph.

Answer: Sorry for this! The data have been added on the new Fig.2

*Page 10981, Line 7 – “Food-miles” should be “Food-Miles” for consistency with the rest of the paper

C5308

OK

Page 10981, Line 21 – Remove “the” before “the North America”

OK

Interactive comment on Biogeosciences Discuss., 8, 10979, 2011.

C5309

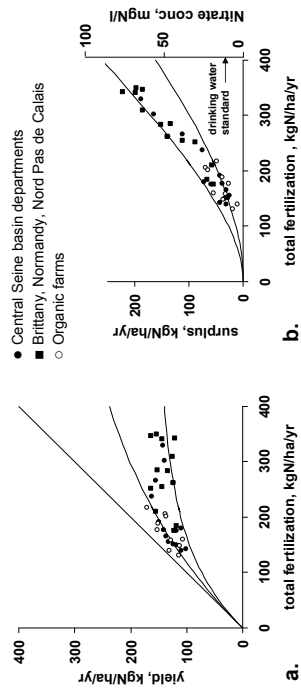


Fig. 1. Fig 2 revised. Relationship between crop yield and total fertilisation. The data available for a number of organic farms in the Seine watershed (unpublished results) are also shown (open symbols).

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