

Interactive comment on “Modelling irrigated maize with a combination of coupled-model simulation and ensemble forecasting, in the west of China” by Y. Li et al.

Anonymous Referee #1

Received and published: 12 May 2011

General Comments: This manuscript analyzes the performance of a coupled hydrologic-crop growth model (Hydrus-1D and WOFOST) against the field observations while evaluating it further through uncertainty and sensitivity analyses. In addition to the model simulations, an ensemble approach was used for predicting the probability of crop production, with special concern on the impact of reduced irrigation. The manuscript is related to a timely, important study. However, there are major flaws in the writing and organization of the manuscript. It has too much information of the methods used, and the methods have been given even under Introduction and Results sections. It could be greatly shortened by avoiding unnecessary details. Also, certain mistakes

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in grammar and punctuation need to be corrected. Therefore the manuscript needs major revision before acceptance for publication.

Specific comments: 1. Please be consistent in using the same tense throughout the text. For instance, the Abstract itself has used both present and past tense. The same could be found in the other sections, as well.

2. P 3844 L 4- P 3845 L 14: Although there is good information in this para, certain information is not directly relevant to the subject area. Therefore I suggest deleting too much unnecessary information given there in trying to justify the importance of UA/SA.

3. P 3844 L18: Delete 'is' after 'e.g.'.

4. P 3844 L26-28: What you mean here is not clear.

5. Please check for proper punctuation throughout the text.

6. P 3846 Section 2 and the sub sectors should go under Materials and Methods.

7. P 3846 L3: Please insert 'of' after 'optimization'.

8. P 3848 L 1: How did you obtain the 'development-dependent' SLA?

9. P 3848 L19: Change 'maintenance growth respiration' to 'maintenance and growth respiration'.

10. Materials and Methods section is too long. Probably you should delete some of the detailed equations given for the HYDRUS-1D model, and simply give the relevant reference.

11. P 3852 Section 4.1: Some of the details here should go to the Materials and Methods section. Please check carefully.

12. Please thoroughly check your Methods after the suggested changes above, and shorten it.

13. Most of the information given under the section 4.2 (P 3854-3855) either explains

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or discusses the methods. Therefore this section needs to be thoroughly revised to include and discuss mostly the results.

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