CC1: 'Comment on hess-2022-252', Xiaofeng Li, 08 Jun 2023
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#	Comment	Reply
1	The manuscript uses spatial range as an input variable and utilizes machine learning algorithms for crop yield prediction. This is an interesting and innovative study. This study can provide a new approach and method for crop yield prediction, while also reducing the dependence of crop models on input data. Although this study proposes a novel method, the final results have good accuracy and have been compared and analyzed with site observation data, confirming the reliability of the results. However, I still have some questions about some of the content of the manuscript, and the author still needs to revise it and add some explanations. At the same time, there are some format problems in the manuscript, and there are also some citation format problems in the references. The following are detailed comments and suggestions:	We appreciate your feedback and questions, which we answer below. The organization and writing of the document have been improved. We hope this new version is much more understandable and structured.
	Specific modification suggestions: **Data:**	
2	• In this study, rice was the research objective and there was a lack of introduction to the characteristics of rice cultivation in the study area. In addition, is the rice in this study area significantly affected by drought? Relevant content should be supplemented.	Thanks, more about the importance of rice in the region has been added. According to the literature, rice yield is hardly impacted by drought in the region.
3	• Although SPEI has a wide range of applications for drought monitoring, this study should also supplement some literature on this indicator in similar research areas and similar research objectives.	Thanks, references have been added to indicate similar research using this drought indicator.
4	• Should the author supplement the sources of land use type data?	Reference has been included. The land use is depicted to illustrate how agricultural the region is. However, this data was not further used in the calculation and results.

	Results and discussions:	
5	• From Figure 5, it can be observed that the correlation between yield after trend removal and drought area changes over time, but overall, the correlation coefficient is relatively small. Can this result support subsequent analytical applications?	Although the correlation coefficient is small in some months for each aggregation period, Figure 5 shows the seasonal variation where, in some months, the correlation is high in those months of the crop season. This correlation coefficient differs for each time aggregation, showing a lag between the time series.
6	• From Figure 7 to Figure 9, it can be found that the root mean square error of simulated yield in the three study areas has very high accuracy. Should the applicability and differences between the two methods be appropriately supplemented?	The results description has been improved. RMSE is shown for each month, but it needs to be noted that models are only suitable for the indicated month and previous months. Although models can still be used after the month, it is preferable to use the most suitable.
7	• In section 4.4, a large number of models are listed. Can the author discuss the universality of these models? In addition to accuracy, the applicability and ease of application of the model are key considerations for its future construction.	This comment is linked to the previous one.
8	• In section 4.5, the threshold of SPEI indicators should be supplemented with relevant basis.	SPEI is an indicator widely used in drought studies, possibly the most used after the Standardized Precipitation Index (SPI), so the methodology and the fundamentals of the thresholds are widely known. We have indicated the reference for those interested in details. Line 119