

Interactive comment on “The impact of drought on the productivity of two rainfed crops in Spain” by Marina Peña-Gallardo et al.

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- Authors sincerely thank to the three anonymous Referees for their reviews, constructive comments and positive feedback in general. We hope that they find the responses satisfactory.

Anonymous Referee #3

The paper deals with the study of impact of drought on two representative rainfed crops in Spain (wheat and barley) through the analysis of the droughts events over this area from several drought indices, both multi-scalar and uni-scalar ones. This is an interesting task that has been assessed by other authors and the results of the present study must be put in those context. Some of these papers are:

C1

Ribeiro, A.F.S., Russo, A., Gouveia, C.M. et al. (2018) “Modelling drought-related yield losses in Iberia using remote sensing and multiscale indices” *Theor. Appl. Climatol.* 10.1007/s00704-018-2478-5.

Gouveia, Célia & Trigo, Ricardo & Beguería, Santiago & Vicente-Serrano, Sergio. (2016) “Drought impacts on vegetation activity in the Mediterranean region: An assessment using remote sensing data and multi-scale drought indicators” *Global and Planetary Change.* 10.1016/j.gloplacha.2016.06.011, in a more general context.

- Authors thank very much for the contribution of this Referee on suggesting these references that enrich the corpus of the manuscript. We took note and added new references to contextualize the study and the results in both sections, Introduction (pp. 55-58) and Discussion (pp. 459-460; 489-491; 503-505). Thank you.

Authors must be careful with some typo errors. For example: SYRS formulae or mistakes on citation as “by Lobell and Asner, (2003), Lobell et al., (2011) and Potopová et al., (2015).” (commas exceed).

- We have carefully revised the citations, removed the commas and corrected the typo error mentioned. Thank you so much.

Also in the first paragraph of page 6 (line 186), it is not clear how many correlations were obtained, why 120?

- Authors really appreciate this note because there was a mistake in the original manuscript. The correct number of correlations obtained is 140 (1 correlation obtained for each of the 10 months analysed * the 14 time-scales considered).

Assessing these minor revisions, I recommend accept this paper, due its interest, if all these changes are made.

- Thank you so much.

Please also note the supplement to this comment:

C2

<https://www.nat-hazards-earth-syst-sci-discuss.net/nhess-2019-1/nhess-2019-1-AC3-supplement.pdf>

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., <https://doi.org/10.5194/nhess-2019-1>, 2019.