

Interactive comment on “Statistical Analysis for Satellite Index-Based Insurance to define Damaged Pasture Thresholds” by Juan José Martín-Sotoca et al.

Anonymous Referee #2

Received and published: 25 March 2019

General comments: This paper deals with the topic of agricultural insurance. It is focused on satellite index-based insurance, proposing an improvement in the insurance of damaged pasture based on NDVI distribution. The research carried out in this paper is of scientific and practical interest, and it is adequate to NHESS journal. The manuscript is well written, structured and presented. The methodology employed and the obtained results are clearly exposed. It seems to me that the paper could be published as long as the authors answer the following minor concerns that arose from the review process that I made.

Specific comments: I only have a couple of minor specific comments for the authors.

C1

1. With respect to the differences found between the use of Normal distributions and GEV distributions (Figure 5), could authors affirm that such differences are statistically significant? 2. Did the authors apply this methodology on geographic areas of different characteristics with respect to the characteristics of the areas analyzed in the present study? Perhaps it would be necessary validating the robustness of the statistical method on different types of vegetation.

Minor comments: Page 1, line 21: The term “normal distribution” appears sometimes in lowercase and sometimes in uppercase. It would be desirable to homogenize this term throughout the entire manuscript. Page 1, line 22: Insert “Moderate Resolution Imaging Spectroradiometer” before “(MODIS)”. This is the first time that it appears in the manuscript. Page 4, line 151: The meaning of MODIS must be deleted from here and included on Line 22. Page 6, line 235: The meaning of MODIS must be also deleted from here. Page 7, line 263: Add “mm” after “360”. Page 8, line 275: Delete “and” and insert “.”. Page 8, Table 1: In the first row of the table, delete the dot in “Sep.”. Page 10, line 346: In the equation (7) it is not necessary to include the meaning of χ_{c2} , because it is just clear from equation (5). Page 11, line 358: For a better reader comprehension, authors could include the name (and scale) of the variables of both axes in graphs of Figure 3. Page 14, line 435: For the graph of Figure 5, similar comment to the previous one. Page 25, line 580: References should be adjusted to the format of the journal.

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., <https://doi.org/10.5194/nhess-2019-34>, 2019.

C2