**Response to revisor 3:**

Reviewer comments appear in blue, while responses appear in black.

It is nice paper about attempt to delineate N fertilization maps by using NDVI, especially the attempting to provide an answer for plots that do not show agreement between NDVI classified images and grain yield classified maps. However, it is some weakness for the conclusion that the mismatch may be the result of a delay in the onset of tillering, which causes a shortening of the tillering phase. Maybe a figure showing the comparison of the NDVI seasonal evolution in unrelated plots and in the related plots can give more clear evidence.

Thank you very much for the effort made in this thorough revision. The authors have taken into account all the suggestions made by the reviewer and have added them to the text As suggested the reviewer a new figure has beedn added.We believe that the text has been substantially improved by integrating the reviewer's comments. The conclusions have been rewritten in order to give a more precise answer to the question posed in the title.

In detail:

English check should be more carefully for example:

L16 a third should be one third and L18: another third should be another one-third

Done

 L135: ANC fertilizer dose applied was 220 and 210 kg ha-1. These numbers are not coordinate with Table 1.

It has been corrected in the document. The data in the table were incorrect. The correct data were those reflected in the text. This can be checked with the total N dosage of 169 kg/ha indicated in the text.

L173: annual rainfall　should be monthly rainfall

Done, thank you

L237: change “Geoeuskadi a repository for spatial data for the Basque Country” to geomorphological variables: Elevation, soil type and orthophoto

Change done

L264-266: Sentences are not well. Maybe it can be changed as “The degree of similarity between maps is quantified using KI, as it is considered a more reliable measure of agreement than simple percent agreement, since KI takes into account the likelihood of agreement occurring by chance.”

The sentence proposed by the reviewer is much better understood than the original sentence. Therefore, the original has been replaced.

L384-404: Suggestion: give a figure to show the seasonal evolution of NDVI of unrelated plots and the related plots as Figure 5.

An excellent contribution proposed by the reviewer. The figure printed below has been added in the document together with an explicative text. In the manuscript we had quantified the differences between the groups using an ANOVA. This allows us to see that there were significant differences between the groups, but it did not allow us to see how each group of plots behaved. But with the figure added in the paper it can be seen how each plot behaved differently.

Gráfico

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