

**CC1: Marta Diaz, 04 Jan 2022**

| <i>RC1 comments</i>   | <i>Authors' answers</i>  |
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| <p>The present study evaluates the effects of conservation agricultural practices, focusing on the effects in three specific soil physical properties. The results obtained in this study are relevant and could improve the future implementation of conservation agriculture.</p> <p>Overall, the authors have carried out a very good job in the design and writing of this manuscript. However, some modifications should be made to achieve a manuscript of high scientific quality. The following are some suggestions for modifications to the manuscript.</p> | <p>We would like to express our sincere thanks for this comment, which will help us to improve our manuscript.</p>   |
| <p>Q1. Restructure the Introduction part so that it has a cohesive and consistent thread.</p>   | <p>We will revise this section, in light of all the comment we received.</p>   |
| <p>Q2. The description of the methods in the Introduction is a bit confusing because the authors describe them as scales and not as measured properties.</p>  | <p>We will revise this part, especially considering Anonymous Referee #1 comments. We will clarify that the different methods provide different information, but in the studied soil, all of them are measure of soil root habitability and soil function, and different results obtained from the three different parameters could be related to the different scale and resolution of the methods.</p> |
| <p>Q3. Material and methods section. Why were not all the soil physical properties analyzed at the same time? It is confusing.</p>  | <p>We will try to clarify the timing of the sampling. We considered valuable to have more data after three-year conversion, especially before and after the main crop. Nevertheless, the timing of these measurements is subjected to many factors, such as soil moisture, field accessibility, weather that could change the planning.</p>  |
| <p>Q4. The Results section is a bit difficult to understand. I would recommend detailing only the most important results, followed by the corresponding p-value.</p>  | <p>According to this and other comment, we will revise this part, clarifying the results while providing complete information</p>  |
| <p>Q5. The results obtained in this assay do not appear to be consistent with the results obtained in other assays. However, the authors do not specify how they differ from the results available in the literature. To enrich the Discussion part, it would be desirable for the authors to discuss more the differences with already published results and possible</p>  | <p>We will provide more details on other authors findings, as suggested.</p>   |

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| hypotheses that could explain these differences, rather than just highlighting that differences exist. |                             |
| Q6. Define abbreviations (BD, PR...) the first time they appear before using them.                     | We will modify accordingly. |
| Q7. Figure 1. Add months to the timeline to make it easier to understand the essay.                    | We will modify accordingly. |

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