

Dear Editors and Reviewers,

Thank you very much for your detailed and helping review of the manuscript.

We have processed all the comments and below you can find a detailed list of our response in blue on the raised comments.

Yours sincerely,

Anja Klotzsche & Manuela Kaufmann on behalf of the author team

RC2:

The study of fertilisers in precision agriculture is crucial. We know that geophysical techniques can be of great help to agricultural practices and this work demonstrates once again their efficient use. I believe that this article is of interest to the agrogeophysical community. I recommend a **minor revision**, there are a few things to revise in the text and especially the lack of a figure did not allow a careful reading of the final part of the paper.

Specific comments:

1. Line 112: "The main textural fraction is silt with 55-67% silt in all horizons". The word silt is repeated too many times in such a short sentence. Suggestion: "The main textural fraction, accounting for 55–67% across all horizons, is silt".  
Thanks, we changed it according to your suggestion.
2. Figure 1: From the text (lines 115-119) and the caption, it is not clear in Figure 1 the black box, and the red circle. I suggest either revising the caption or aligning the text with what is in Figure1.  
Thanks for the hint. We changed the caption to "... In the lower left of a) is the location of the test site in Germany marked with a red dot. EMI measured ECa maps [mS/m] for b) HCP 0.71 m and c) VCP 0.71 m mode. The pink box in a) and black rectangular in b) & c) indicate..."
3. Figure 2: It might be clearer to write the letters a, b and c as subscripts. I also suggest inserting a small number to indicate plot 1 and 21  
Dones as suggested. Similary we adapted the text according to this.
4. Line 131: Rephrase the sentence. EMI data were run after 485 days and not every day.  
We rephrased the sentence to "To monitor the effect of fertilization over time, 20 EMI measurements were performed over a period of 485 days (DAF 485) (see Table 1)." See line 134-135.
5. Line 190: Perhaps reference is made to figure 2 and not figure 1.  
Yes indeed. Thanks. We corrected it.
6. Line 250-270: For clarity, add the reference to Figure 7 in the text for images b-f and h-i as well.  
Thanks for this comment. We adapted the text according to it.
7. Line 337: Replace SCW with SWC.

## Done as suggested

### General comments:

1. I suggest the authors reread the text, there are some grammatical and spelling errors.  
We apologize for the inconvenience and checked the text again We have grammar and spelling is not correct.
2. There are many terms in the text that are sometimes abbreviated. It would be appropriate to use abbreviations from the outset and to use them throughout the text without repeating long terminology. For example, use the abbreviation ECa for Electrical Conductivity from the introduction. The abbreviation VCP and HCP appears first in Figure 1 cited in section 2.1 and then the extended terminology is given later in section 2.4.  
Same has been requested by reviewer #1 and we tried to use abbreviations throughout the text now wherever feasible.
3. Tables and figures are a bit small.  
We apologize and hope that in the final printed version all figures and tables are set in a readable size.
4. Figure 10 is missing; therefore it was difficult to follow section 3.2.3.  
We apologize for the inconvenience and we now added the missing figure.
5. Considering that the EMI technique measures the electrical conductivity of the soil, a comparison between this parameter and the conductivity derived from ERT measurements could be useful.  
We compared the values and as except an offset was observed. Since we do not calibrate and invert the EMI data, we should not directly compare the different ECa values. The sensitive of the EMI and ERT is also depending on the configuration quite different und a certain difference is expected.