Dear Editor Prof. Garré, Dear Reviewers,

We thank you the reviewers for the very helpful and detailed review, and general positive feedback. We hope our response and minor changes will be adequate and express our appreciation.

Reviewers' comments are in bold, authors' responses in regular font, and quotes from the article are in italics.

--- --- --- --- ---
Response to Pedro Martínez-Pagán (RC2)

I found this work on the use of the frequency domain electromagnetic (FDEM) method and the electrical resistivity tomography (ERT) method in precision agriculture very interesting and engaging. I know that the FDEM method has been used in agricultural management for a long time, and is one of the most important geophysical techniques in the field of agrogeophysics. However, despite the existence of many similar studies, this work is interesting and relevant because it examines the usefulness of two FDEM devices in an orange tree study plot in conjunction with the ERT technique to derive a 3D resistivity model. This model helps to implement a numerical hydrological model that reproduces key aspects associated with volumetric water content (VWC), the position of the trees and the effects of the dripping system and root water uptake (RWU), among others. Apart from the fact that the authors implemented open-source codes to accomplish the geophysical data inversion, which I consider appropriate for potential practitioners involved in this field of study. The work is clearly described and structured, and is well supported by figures that guarantee the reproducibility of the methodology in similar environments. In my opinion, scientists concerned with precision agriculture or water management in agriculture will be pleased to read this interesting work, which deserves to be published.

Thank you for the detailed summary and positive feedback.

I only suggest to replace Frequency-Domain ElectroMagnetic induction (FDEM) by Frequency-Domain Electromagnetic (FDEM), the term commonly accepted.

Done, the title now is

High-resolution frequency-domain electromagnetic mapping for the hydrological modeling of an orange orchard