

Interactive comment on “Precision agriculture suitability to improve vineyard terroir management” by J. M. Terrón et al.

Anonymous Referee #1

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In my opinion the paper is in accordance with the objectives of the Soil journal. The terroir exploitation in wine production is becoming a common topic in the main and bigger farms. At the same time, the precision agriculture represents a complex and useful ensemble of knowledge that should be continuously improved. The paper is a step in that direction. However, it should be noted that some essential aspects for the statements validation have not been adequately detailed in the manuscript. I mention briefly some of them: line 83 The soil orography and composition and its relative spatial distribution are missed; line 87 Cultivar, rootstock, and age of the vineyard are missed (The growth responses at irrigation treatments could be different in relation even to this variables); line 96 sentence too general: Soil management: how is the management? mineral/organic fertilization, deep tilling, under-row weed management,

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machine passages: alternating rows in the seasons etc.. Canopy management: how is the management? How many intervention per year? line 143 Potential Vineyard Evapotranspiration (ET): no data were reported related to growing season such as mean low temperature, mean high temperature, mean temperature, mean hourly solar radiation, cumulative degree-days ($>10^{\circ}\text{C}$);

About the assessment of the vine growth, you have to express this value with analytical parameters such as LAI Leaf Area index, LWA leaf wall area, TRV tree row volume etc. or shoot development that allow a numerical comparison between irrigation rates and soil quality influence. In the text there are some repetitions, furthermore some sections are not so clear like the paragraph 3.2. The text needs to be reviewed by a native English speaker for a major revision. I believe that the focus of the study is interesting but have to be improved in the contents and deepened. For these reasons, I believe it is not acceptable.

Interactive comment on SOIL Discuss., 1, 947, 2014.

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