

Interactive comment on “The use of soil electrical resistivity to monitor plant and soil water relationships in vineyards” by L. Brillante et al.

Anonymous Referee #3

Received and published: 29 November 2014

The manuscript is a review of soil water and vines relations and of a method to monitor the soil electrical resistivity. The first part is a comprehensive review of soil- plant and water relation. The second part need to be improved due to lack of details related to materials and methods used for the experiments. The second part in not very clear, figures have to be improved, as well as the captions.

Following, there are a few comments, some of which represent minor corrections,

Page 679, line 3. The aim of the work is not clear. Page 679, line 14. Which are “these phenomena”? The paragraph 2 is too long and redundant in the first part. Are there effects of water on phytopathology?. For example, could water stress reduce Botritis? This aspect is not mentioned in the paragraph. I suggest to improve line 8-13

C252

page 680. Change this sentence “The magnitude of such variations in soil moisture has rarely been studied and their impact on vine physiology has rarely been taken into account (among few, Bauerle et al., 2008)” with “The magnitude of such variations in soil moisture and their impact on vine physiology has rarely been studied (among few, Bauerle et al., 2008).” Page 685 line 7 . delete the (“ Page 685 line 9 . This sentence is a repetition. Paragraph 4.1 Add bibliography after “The relationship between Electrical Resistivity (ER) and Soil Water (SW) has been observed in many studies, by many authors and in many different settings”

Page 688 line 20. Which are the other soil characteristics.?

Paragraph 5: Miss information of the model to predict the Fraction of Transpirable Soil Water How was managed the soil? When the measurement were carried out? To understand the figure and the last part of the manuscript a very short material and method is necessary.

For instance, the measurement (28) of the figure 3 are not clear, as well as the explanation in the text.

Figure 3: the dot in figure 3 has the same meaning of the figure 2? Add the title of ordinate in the figures.

Change the conclusion. It is too similar to abstract

Interactive comment on SOIL Discuss., 1, 677, 2014.

C253