

Interactive comment on “Compared impact of compost and digestate on priming effect and hydrophobicity of soils depending on textural composition” by Amrei Voelkner et al.

Anonymous Referee #2

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General comments

The aim of this study was to determine the effects of treated organic wastes on hydrophobicity under different soil textures and the change of microbiological activity and organic carbon content. I believe this paper has relevance to the “SOIL” journal and will be of interest to the readers. The introduction is short and lacks depth as you pose three objectives from this study. No literature was cited about the effect of organic amendments on different soils and hydrophobicity. The compost and digestate were not tested for hydrophobicity. I would caution this is a study about hydrophobicity as there is no indication the soil you are working with or the amendments are hydrophobic in nature. The RI index seem to show limited increase in hydrophobicity with all values

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close to 1. Also please go through the paper grammatically.

Specific comments

1. Remove objective 3. It is expected you will determine relationships. 2. I don't think you should say a special focus on soil texture. You only used 2 soils. 3. Was soil hydrophobicity or the hydrophobicity of the amendment tested before mixing? 4. As mentioned from your introduction, the critical water content is important for the expression of soil hydrophobicity. You have tested the wetting properties of moist samples. Do you believe that the soil hydrophobicity has reached the critical level in your system? 5. Is there a reason why the Ss site had a lower organic carbon than the loamy soil? I would expect this to be reversed. 6. Is there a reason why the SCM and SDM were not compared to each other? 7. The scale for Ut3 is no good in figure 2. 8. Was the increase in RI significant? It does not look like there was much change in RI. 9. I disagree with the claim that fine pores are impenetrable by microorganisms.

Technical corrections

1. Exsudates is spelled wrong throughout the paper 2. Page 1, Line 17: replace “beginning” with “initial” 3. Page 2, Line 20: Change “ to be more increased” to “ to increase” 4. Page 2, Line 25: Should include a before major part 5. Page 2, Line 25: should be serve as a carbon source. 6. Page 2, Line 7: Should be in a fermenter 7. Innocuousness for buffer? 8. Page 2, Line 32: What do you mean by across borders? 9. Page 4, Line 12: Please correct grammatically. 10. Page 4, Line 16: what is “dosis”? 11. Page 5, Line 14: should be on a perforated plate 12. Do you mean mesopores instead of middle pores?

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