



**SDI Review Form 1.6**

Journal Name:	<b><u>International Journal of Plant &amp; Soil Science</u></b>
Manuscript Number:	<b>Ms_IJPSS_24304</b>
Title of the Manuscript:	<b>The water infiltration, hydraulic conductivity and water retention effects of ground Saponaria officinalis (L.) root as a soil surfactant</b>
Type of the Article	<b>Original Research Article</b>

**General guideline for Peer Review process:**

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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**PART 1: Review Comments**

	Reviewer's comment	Author's comment <i>(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
<b>Compulsory</b> REVISION comments	<p>The English is acceptable but the manuscript should be improved. A set of words are repeated many times unnecessarily (e.g. "lack of organic matter" is repeated twice in the same line), which impairs the fluency of text.</p> <p><b>Introduction:</b> It is advisable to rewrite the introduction. Some pieces of information are presented more than once. Such as lines 43-49 and 50; 50-53 and 83-84. They reported similar ideas, and the same pattern is observed in other paragraphs.</p> <p>It would be appreciable in the objectives to include each type of the tested soil and change "determine significant differences (<math>P &lt; 0.05</math>)" to "evaluate", since the statistical analysis is understood as a tool in the scientific research.</p> <p><b>Material and methods:</b> The Houston Black and Tarpley soils could be classified as heavy clay soil and clay loam soil in this section, as these two types of soils was mentioned in previous sections.</p> <p>Describe how the surfactant solution was prepared including the extraction method of saponins from <i>S. officinalis</i>.</p> <p><b>Results and discussion:</b> Only results were presented. The findings were not discussed using other scientific papers. Since these compounds were not tested to agricultural use previously, according to the authors, a comparison</p>	<p>I believe the organic matter comment reads properly, the first sentence indicates the lack of production of OM and the second follows with the implications of OM on soil aggregates.</p> <p>The 43-49 to 50 redundancy was removed as was the 50-53 and 83-84 redundancy</p> <p>I placed this in the last line of the Materials and Methods.</p> <p>These name references were eliminated in further text and heavy clay or clay loam was substituted</p> <p>Is was a powdered ground root, no extraction for saponin, but used in the natural state. (place in text</p>



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	<p>with other surfactants could be done.</p> <p><b>Conclusions:</b> Some fragments presented in this topic could be used in the Results and Discussion.</p> <p>Try to be more informative and specific when discussing the results. For example in line 219 ("in a very sandy loam"), it would be a better to inform the percentage of sand in this soil to express the amount of this particle.</p>	<p>now)</p> <p>I did move a large portion of the Conclusion which actually was discussion, into the Results and Discussion.</p> <p>See above.</p> <p>I specified the soil series and added the percent sand</p>
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<p><b><u>Minor</u></b> REVISION comments</p>	<p>Abstract: Delete once the preposition in (in <math>P &lt; 0.05</math> in sand) Lines 27, 28. El Nino -&gt; El Niño A list of abbreviations in the first page would facilitate the lecture. The results should be shown in graphs. Since, this type of data presentation would allow analyzing and comparing the effect of treatments, not only the surfactant concentrations but also the type of soils.</p>	<p><u>The abstract statement was corrected. El Nino converted to El Niño.</u></p> <p><u>All abbreviations in the paper are preceded by the fully spelled out version now.</u></p> <p><u>New graphs are added for the infiltration curves, the tables remain for the statistical information</u></p>
<p><b><u>Optional/General</u></b> comments</p>	<p>Add Saponins to the keywords.</p> <p>The inclusion of a scheme that describes how the structure of saponins interacts with particles and aggregates to soil would be an outstanding tool to support the -explication about the action of theses surfactants compounds.</p>	<p><u>Saponins added to keywords</u></p> <p><u>I agree this would be a good addition. However, a review of literature did not turn up a definitive paper on the soil aggregation effects from saponins. Also, this manuscript doesn't really take into account these affects. The manuscript of more an investigation of the use of the powdered root form. Pure saponins were not used.</u></p>