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Dear Natascha Töpfer
Copernicus Publications
Editorial Support

October 6, 2015

Greetings;

Referring your decision letter on my submitted manuscript (**soil-2015-40R2**) and encouraging me to revise the manuscript after addressing the comments and suggestions of the respected reviewer. Here, Please find enclosed the revised version of the manuscript entitled "**Potential effects of vinasse as a soil amendment to control runoff and soil loss**" by Z. Hazbavi and S.H.R. Sadeghi. **All comments and suggestions of the respected reviewers have been addressed in the revised version as detailed below. The entire revisions were highlighted by different color.** The acknowledge receipt of the same and informing me about the status of the progress in paper evaluation is much obliged in advance. Should you need to contact me, please use the address given above or in the manuscript.

Revision Notes 3

Firstly, authors would like to thank the respected reviewers for their very constructive comments and suggestions.

Anonymous Referee #1

(All revisions have been highlighted in revised manuscript by red color)

Received and published: 29 July 2015

The use of alternative materials and substances to improve soil quality and control soil erosion processes is a research topic of increasing interest. In this manuscript, the authors try to assess the potential of vinasse as a soil erosion reducer under control conditions. Despite it is an interesting topic, the experiments are limited and therefore the results, and there are several aspects that must be improved.

Introduction: P 770, L 14-15 and L 20-21. Repetitive.

Ans. The second sentence (L 20-21) was removed.

P 770, L 25-26. What it is understood by 'properly used'?

Ans. The sentence was restructured and hoping to be understood.

P 770-771, L 28-2. Add citations.

Ans. The main citation was added.

P 771, L 3. One of the citations seems to be repeated.

Ans. We checked the citations. They are correctly used.

P 771, L 22-29. This paragraph should be relocated and better connected to other parts of the text.

Ans. The mentioned paragraph was moved in proper place in the ms. text.

P 772, L 1-11. Please, relocate this paragraph

Ans. We relocated and adjusted the mentioned paragraph.

Materials and methods: I would suggest to the authors to improve this section. If necessary, divide it in different parts (i) soil properties, (ii) vinasse characteristics, (iii) plot preparation, (iv) rainfall experiments, etc., providing the reader more details such as, the control plot, the rainfall simulator used...

Ans. The reviewer suggestion was incorporated.

P 772, L 13-14. Include the objectives in the introduction.

Ans. It was removed and the paragraph relocated proper place in the text.

P 772, L 24-26. Maybe, gather this information in a table.

Ans. By dividing the M&M section to suggested subtitle, we think it is no need to present this information in a table.

P 773, L 4, L 10. Could you describe the natural or the field conditions?

Ans. It was explained in the context.

Results and discussion: Could be possible to evaluate the repellency of the vinasse in some laboratory trials to check some of your hypothesis? Did the authors notice differences in the time of runoff initiation among vinasse doses? Could you change the units of runoff data in order to read the data easily?

Ans. The repellency effects of the vinasse could not be tested, since the entire experimental set up has been removed. However, if the respected reviewer insists in his comment, it can be again taken into account in separate experiments. Though, this suggestion will be certainly taken into account in forthcoming studies in the same field. The difference between commencement as well as cessation times in different treatments was added to Figure 4. These units are common in similar paper and it had high precision.

P 774, L 6-8. Not necessary.

Ans. It was deleted.

P 774, L 12-13, L 14-15. Repetitive.

Ans. They didn't the repetitive. However, we removed the second sentence to avoid any probable misunderstanding.

P 776, L 3-4, L 5-6. Repetitive.

Ans. The first sentence was removed.

P 777, L 9. Change 'Soil physical' by 'soil physical'.

Ans. We did it.

Conclusions: It is very difficult to conclude with the available data and changes in soil properties are not easily detected in such a short term, specially the physical ones.

Ans. You may be true. But we just compared the treated conditions with the control ones. The time scale is alike.

L 25-27. No soil property have been measured in this study to conclude on this.

Ans. The type of soil and its located was added to text.

Anonymous Referee #2

(All revisions have been highlighted in revised manuscript by blue color)

Received and published: 7 September 2015

Dear Authors,

Although the present work presents an interesting approach, I would suggest MAJOR REVISIONS before considering it for publishing. There are several scientific and presentation lacks that the authors should change before reconsidering for publication. Also there is a high need of bibliography that should be taken into account. I quite not see/understand the point/aim of this work as it you don not discuss your results but the results from Tejada and González.

I would encourage the authors to send the manuscript to an English-native speaker as it is difficult to follow the ideas as it is now.

Ans. All comments and suggestions of the respected reviewer have been addressed in the revised version as detailed below. The manuscript was carefully amended based on the English grammatical structure.

ABSTRACT

Line 5 I would suggest to give a brief description of 'vinasse' (just a few words)

Ans. The reviewer suggestion was incorporated. A brief description of 'vinasse' (just a few words) was added to sentence as follow and hoping to be understood.

“So, the present research focused on evaluating the effectiveness of vinasse, a byproduct mainly of the sugar-ethanol industry, on soil conservation under simulated rainfall.”

Line 8 Revise the units (intensities are in mm!!!)

Ans. The unit of intensity was revised. We sorry for this unwanted mistake which occurred just in this sentence.

Line 15 So the main result is that vinasse could not decrease runoff and soil loss????

Ans. Yes, as mentioned in the text, the vinasse didn't reduce the runoff and soil loss significantly. It is a good results that guide the researcher application from vinasse on the study condition of experiment didn't decrease the water erosion. So we must try to find the new solution for over the massive production of vinasse. It is possible to use it with else soil amendment to this subject. Further research is needed.

INTRODUCTION

Line 20 Please change to 'about 150 M US dollars'

Ans. The reviewer suggestion was done.

Line 24-25 References needed

Ans. The related references were added to text.

Line 5-6 Which literature review? When was it done? Where are the citations?

Ans. The references were added.

Line 11 The aims of the work are highly missing.

Ans. With aim of soil erosion control. The sentence was revised.

MATERIALS AND METHODS

Line 15 We need more detail on how the simulations were performed and type of rainfall simulator.

Ans. The necessary details were added to the text as follow:

“The rainfall simulator laboratory consists of a 4000-L water tank and 27 precalibrated nozzles in three parallel lines with the ability to simulate raindrops of 1.3 mm average size. The drops fall from a height between 4 and 6 m at the upper and lower parts of the plot, respectively, which creates an average

terminal velocity of about 7 m s^{-1} for the entire length or area of the study plot (Gholami et al., 2013).”

Line 8-14 The levels were selected before or after? It is not clear.

Ans. We relocated and adjusted the mentioned paragraph.

Line 18 I would suggest some numbers on the IDF (Intensity–duration–frequency) curves

Ans. We added necessary details to the text.

Line 24 Please, revise the English

Ans. The mentioned sentence was revised as follow:

The time of runoff commencement and cessation times, and regular measurement of runoff volume were measured by a chronometer and standard gauged cylinders, respectively.

RESULTS AND DISCUSSION

1) RUNOFF

Line 21 If the effect of vinasse on runoff was not significant...what was then the aim of the work?

Ans. These results were obtained after the research experiment. We didn't know what occurred after vinasse application. This amendment may control the runoff and soil loss but under different treatment such as more time retention of vinasse before rainfall simulation. It is needed more experiment and deeper research to take comprehensive conclusion.

Line 27-8 But have you measured what you state in the paragraph?

Ans. No, we didn't measure water repellency phenomena; it is concluded from author's observation among the experiment.

Line 15-17 Please explain why Line 20 You need to explain this

Ans. To make it clearer.

2) SOIL LOSS

Line 22 You need to show values here. It is in the RESULTS AND DISCUSSION SECTION where you have to show and explain your data so the rest of the scientific community can understand your work.

Ans. It has been followed up.

Line 9-20 And what about your results? You explain other researchers work but not yours.

Ans. It was little bit explained.

TABLES

Please check the format (same number of decimals, font)

Ans. The decimals of numbers were adjusted to three same as others.

FIGURES

Please provide a new version of figure 1 as it needs more resolution Please present all the figure with the same format and not a 'copy-paste' version of them.

Ans. It was done.

We hope the final emendations caused to consent the respected reviewer and made our paper well qualified for final acceptance and publication.

Sincerely,

S.H.R. Sadeghi

Enclosure