



SDI Review Form 1.6

Journal Name:	Asian Journal of Soil Science and Plant Nutrition
Manuscript Number:	Ms_AJSSPN_36917
Title of the Manuscript:	ASSESSING THE IMPACT OF LONG-TERM CASSAVA MILL EFFLUENT DISCHARGE ON SOIL pH AND MICROBIAL CHARACTERISTICS IN CROSS RIVER STATE
Type of the Article	Original Research Article

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 (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)
Compulsory REVISION comments	This research is of great scientific relevance and is of great interest in both agriculture and the environment, as it lays the groundwork for the cassava mill effluent discharge on the soils. However, there are some observations to take into account, in order to improve its quality. The introduction is good, and brings many elements for understanding the issue addressed in this work. However, it is very long, and it would be desirable to limit it to the essentials. Sample preparation: To ensure that there were no alterations in the biological properties of the samples, it would be good for the authors to specify at what temperature they were kept in the refrigerator. The authors must consider the importance of providing the sample size (total of samples) to ensure its representativeness. Microbial analyses: The authors are invited to indicate in which consist the pour plate technique. It is strongly recommended that the authors perform a statistical analysis to validate the results obtained. Please, provide the reports mentioned in line 155. Strongly recommended to avoid the speculation about the effect of cassava mill effluent discharge on soil physico-chemical properties, which were not studied in this work. The contents of Calcium, Magnesium and nitrogen were not measured here (from line 161) It is recommended that authors provide double-entry tables to facilitate their reading (tables 1 and 2). Please, provide the author of the work (the work of [32] and [33]. The document contains a "Results" part and a "Discussion" part. In the presentation of the results, there are several elements of discussion. It would be better either to present only the results on the one hand and then the discussion on the other hand, or then make both sides, one. The conclusion should focus solely on the results of this work, and avoid aspects such as soil toxicity and impedes microbial activity, as well as soil chemistry and biology, nutrient cycling, organic matter degradation, crop productivity, etc...	1. The samples were stored in the refrigerator at 2°C between 7-14 days. 2. At each sampling distance, three samples were collected and pooled to give a composite sample for that particular sampling distance, and 5 point (point of discharge, 10 m, 25 m, 50 m and 100 m) were considered in all. 3. Pour plate method is usually the method of choice for counting the number of colony-forming micro-organism in a sample. In this method, fixed amount of inoculum (generally 1 ml) from a broth/sample is placed in the center of sterile Petri dish using a sterile pipette. Molten cooled agar (approx. 15mL) is then poured into the Petri dish containing the inoculum and mixed well. After the solidification of the agar, the plate is inverted and incubated at 37°C for 24-48 hours. 4. The reports mentioned in line 155 is found in; Chinyere CG, Iroha AE, Amadike UE. Effects of altering palm oil and cassava mill effluents pH before dumping on dumpsite soils physico-chemical parameters and selected enzyme activities. Journal of Biodiversity and Environmental Sciences. 2013; 3 (4) 46-58. Okechi RN, Chukwura EI, Azuwike CO, Ihejirika CE. The impact of cassava mill effluent on the total aerobic bioload and physicochemical properties of the soil. Journal of Biodiversity and Environmental Sciences (JBES). 2011; 1(6): 112-117. Okafor JO. Impact of effluents from garri processing industries on the environment in Bida, Niger State of Nigeria. J. Eng. Appl. Sci. 2008; 3(6): 487-490. 5. The author of the work (the work of [32] and [33] are listed below: 32. Ezeigbo OR, Ike-Amadi CA, Okeke UP, Ekaiko MU. The Effect of Cassava Mill Effluent on Soil Microorganisms in Aba, Nigeria. International Journal of Current Research in Biosciences and Plant Biology. 2014; 1 (4): 21-26. 33. Igbinosa EO, Igiehon, ON. The impact of cassava effluent on the microbial and physicochemical characteristics on soil dynamics and structure. Jordan Journal of Biological Sciences. 2015; 8(2): 107 – 112. 6. All element of discussion in results has been move to discussion



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Minor REVISION comments	Please, improve the redaction providing the reference so that the sentences can have a sense. For example, it is: “According to Okunade and Adekulu [22]”, instead of “According to [22]” (line 84); Same with: Described by [24] (line 133), By [25] of [26], presented by [27], of [28] and [29] (lines 140, 141, 143), Studies by [13] and [14] (line 163), By [35] in [36], etc... The English writing must be revised at all.	
Optional/General comments		