



**SDI Review Form 1.6**

Journal Name:	<a href="#">International Journal of Plant &amp; Soil Science</a>
Manuscript Number:	Ms_IJPSS_61383
Title of the Manuscript:	Redox chemistry and nutrient release from organic amended terrace soil under anaerobic incubation
Type of the Article	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/journal/10/editorial-policy> )



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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)
<p><b>Compulsory</b> REVISION comments</p>	<p>The research paper entitled “Redox chemistry and nutrient release from organic amended terrace soil under anaerobic incubation” is a good as very limited work has done in past. The data set of the research has provided a good information. Hence, this paper can be published in the “International Journal of Plant &amp; Soil Science”, but major revisions should be done to address some errors.</p> <p><b>Abstract:</b> <i>In Place and Duration of Study:</i> (Here mention only place and duration such as “An laboratory incubation study was conducted at Bangladesh Agricultural University, Mymensingh, in December 2014 for ----days.)</p> <p>The soil sample was collected from the surface (0-15 cm) of a selected area of Bhaluka .The sentence may be changed as .....The surface (0-15 cm) soil sample was collected from rice growing field of a selected area of Bhaluka, Mymensingh and placed in methodology section. Then Cowdung and Cowdung bioslurry were collected from the Agronomy Field Laboratory of Bangladesh Agricultural University, Mymensingh, in December 2014. The sentence may be changed as An incubation study was conducted with four different sources of organic manures with--- replication and ----treatment combinations and placed in methodology part.</p> <p><b>In Methodology:</b> The sentence .....The quality and quantity of carbon from different organic sources influence the redox chemistry of soil which in turn affects nutrient availability.... <b>May be deleted from this section.</b></p> <p>What is PB?... It should be written as poultry bio slurry (PB)</p> <p><b>Introduction:</b>  <b>The word very should remove from the sentence</b> “Soil organic matter (SOM) is the very foundation for healthy and productive soils”  <b>The sentence should be removed</b> Good soil should have an OM content of at least 2.5% (2). Or place without value (2.5%)  <b>The sentence should be rearranged:</b> The application of the bi-product of the recently popularized biogas technology named ‘bio-slurry’ in soil could be one of the options to maintain soil fertility in Bangladesh. <b>As</b> Recently biogas technology is being popularized in Bangladesh and generate huge quantities of bio slurry by these industry ----  <b>The sentence should be rearranged:</b> More than 25,000 biogas plants of varying gas-producing capacities (2-6 m<sup>3</sup>) are generating more than 200,000 tons of slurry on a dry weight basis (3). Presently 2 million tons of slurry is being generated from nearly 25000 biogas plants.....</p> <p><b>Frequent use of Under the situation should be removed In the sentences like A)</b> Under the situation, the production of bio-slurry from cattle or poultry manure deserves due attention.<b>B)</b> Under such situations, to sustain crop productivity and to increase soil fertility, there is no alternative but to add organic fertilizer in the soils.  <b>In the same section please use synonyms increase as improve</b>  . Bio-slurry contains available nutrients, <b>increase</b> soil physical properties, and inhibit weed seed germination and pest attack. So the application of bio-slurry will supply the nutrients in addition to improving the physical, chemical, and biological properties of soil towards improving and conserving soil fertility. Under such situations, to sustain crop productivity and to <b>increase</b> soil</p>	



	<p>fertility. Please delete part in same sentence "there is no alternative but to add organic fertilizer in the soils"</p> <p><b>Materials &amp; methods</b> One more section may be added as 2.1 in M&amp; M sections like.... <b>Soil sampling details:</b> with GPS data Please check the spelling <b>ground</b> in M&amp; M section 2.1 Please rearrange the sentence (The collected soils were air-dried for several days, ground, plant residues, and other extraneous materials were removed and were sieved through a 10-mesh sieve and mixed thoroughly) as "The collected soils were air-dried for several days, ground, plant residues, and other extraneous materials were removed and mixed thoroughly and sieved through a 10-mesh sieve." <b>In section 2.2:</b> the sentence may be written as "The chemical compositions of collected organic materials namely poultry manure (PM), poultry bio-slurry (PB), CD, and CDB are presented in Table 1." <b>Shade condition</b> may be written as shade Again <b>ground</b> spelling check, <b>Title of table should uniform as</b> <b>Table 1: Chemical compositions of PM, PM, CD and CDB</b> <b>In section 2.3</b> The sentence (The experiment comprised of five treatments including control) may be written as The laboratory experiment conducted with five treatments combinations including control. Please change the sentence (All the amendments were applied @ 2g/100 g soil. The experiment was carried out following Complete randomized design (CRD) with two replications. The locations of the plastic glasses receiving different treatments were exchanged among the treatments throughout the incubation period at a one-month interval for homogenization) meaning is not clear. <b>In section 2.4</b> Unit should be uniform 2g/100g Or 2g 100g<sup>-1</sup> ..... Please follow as per journal (in all the sections) Term <b>animal residue</b> should be removed organic manure/material may be used <b>In section 2.5</b>  <b>The sentence may be changed as..</b> pH and Eh data were collected from the plastic glasses using pH meter (Samsion TM<sup>+</sup>, HACH, USA) and Eh meter (Samsion TM<sup>+</sup>, HACH, USA) respectively by putting them in the plastic glass. Data of pH and Eh values were recorded daily for first 14 days then, the data has been collected at 2 days' interval for 7 days and finally at 7 days interval for 4 months.  <b>In section 2.6</b> The NH<sub>4</sub><sup>+</sup>-N in the incubated soil was measured colorimetrically by the indophenol blue method (Kemper, 1974) as adapted by Kedar et al 2003(7). <b>The sentence</b> (The flasks were placed in a water bath maintaining 40°C and allowed to remain 30 minutes for homogenous color development.) <b>may be changed as..</b> The flasks were placed in a water bath maintaining 40° for 30 minutes to obtain homogenous color development.  <b>In table 2</b> <b>Rice is upland or puddle... please mention</b> <b>Soil: water pH must me added in chemical section</b>  <b>In section 2.7</b> Phosphate P should be written as phosphorus Again uniformity should maintain in full text as phosphorus by replacing <b>Phosphate P (2.9, 3.4)</b>  The phosphorus content in the sample was measured by the Olsen method. Ammonium molybdate solution was made using potassium antimony tartarate, conc. H<sub>2</sub>SO<sub>4</sub> and ascorbic acid.</p>	
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	<p>5 ml of this solution was added to 5 ml of the NaHCO<sub>3</sub> extracted volume was made up to 50 ml. Then P content in the water sample was determined by spectrophotometer at 890 nm wavelength..... Please delete this paragraphs from 2.7 section</p> <p><b>Results &amp; Discussion</b>  <b>Fig Poultry manure may be shown as PM likewise follow for all treatments</b>  <b>3.5 again unit should be uniform</b>  <b>Conclusion :</b>  <b>Please modify and include future scope of research</b></p>	
<b>Minor</b> REVISION comments		
<b>Optional/General</b> comments	<p><b>Please justify :</b>                  If OC is already high nearly 1% then why using higher doses of organic manure (2g/100g soil). Again application 2% OC or enrichment of soil by 2% organic carbon is practically possible. How the research will be benefitted to farming community of Bangladesh.</p>	

**PART 2:**

	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)
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

**Reviewer Details:**

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