

## SDI FINAL EVALUATION FORM 1.1

### PART 1:

Journal Name:	<b>International Journal of Plant &amp; Soil Science</b>
Manuscript Number:	<b>Ms_IJPSS_119489</b>
Title of the Manuscript:	<b>Influence of Different Levels of NPK, Biochar and Azotobacter on Physico- Chemical Properties of Soil on Cowpea (Vigna unguiculata)</b>
Type of Article :	

### PART 2:

<b>FINAL EVALUATOR'S comments on revised paper (if any)</b>	<b>Authors' response to final evaluator's comments</b>
<p>The characteristics of biochar play a crucial role in understanding its impact on soil and the environment. Biochar is a carbon-rich material produced from the pyrolysis of organic materials, such as agricultural residues or forestry waste. It is known for its ability to improve soil fertility, enhance crop productivity, and sequester carbon from the atmosphere.</p> <p>When studying the effects of biochar on soil, it is essential to consider and document its key characteristics. These characteristics include:</p> <ol style="list-style-type: none"><li>1. <b>Degree of Interaction</b> : Understanding how biochar interacts with soil components is vital for predicting its behavior and effectiveness in soil improvement.</li><li>2. <b>**Electrical Conductivity Value**</b>: This parameter provides insights into the ability of biochar to conduct electricity, which can influence nutrient availability and microbial activity in the soil.</li><li>3. <b>Cation Exchange Capacity (CEC)**</b>: CEC is a measure of the soil's ability to retain and exchange cations (positively charged ions). Knowing the CEC of biochar helps in assessing its potential to retain nutrients and improve soil fertility.</li><li>4. <b>Organic Carbon Content**</b>: Biochar's organic carbon content is significant as it influences its stability, carbon sequestration potential, and long-term impact on soil health.</li></ol> <p>By including a table that outlines these characteristics of biochar in the research paper, the researcher can provide valuable information for understanding the mechanisms through which biochar affects soil properties and plant growth. This detailed documentation will enhance the scientific rigor of the study and contribute to the broader knowledge of biochar applications in agriculture and environmental sustainability.</p>	

### Reviewer Details:

Name:	<b>Fathallah Muhammad Al-Madani</b>
Department, University & Country	<b>Technical Research Center, Libya</b>