

Review Form 1.7

Journal Name:	Journal of Scientific Research and Reports
Manuscript Number:	Ms_JSRR_113095
Title of the Manuscript:	GIS interpolation and mapping of soil physicochemical properties in deep medium black soil of an established citrus orchard
Type of the Article	

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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>Compulsory REVISION comments</p> <ol style="list-style-type: none"> Is the manuscript important for scientific community? (Please write few sentences on this manuscript) Is the title of the article suitable? (If not please suggest an alternative title) Is the abstract of the article comprehensive? Are subsections and structure of the manuscript appropriate? Do you think the manuscript is scientifically correct? Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form. <p><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></p>	<ol style="list-style-type: none"> <i>Yes, the manuscript is important for scientific community.</i> Summary highlights of Manuscript are as under: Mandarins (Citrus reticulata Blanco) contributes to the second largest production that is 26 percent after sweet oranges contributing 56 percent to global citrus basket (FAO,2017).In India, mandarins constitute about 5.27 million metric tonnes from land area of 0.42 million ha and ranks first among the citrus fruits grown here in the country Soil organic matter enhances nutrient availability to the crop plants by releasing organic substances which can chelate with micronutrients and thereby improving their availability (Tisdale, Nelson, & Beaton, 1985).Spatial variability of soil organic carbon (SOC) is an important indicator of soil quality, as well as carbon pools in the terrestrial ecosystem and it is important in ecological modeling, environmental prediction, precision agriculture, and natural resources management (Zhang et al, 2012; Liu et al, 2014).Scientific management of Soil organic carbon (SOC) and nutrients are important for sustainable production of agricultural system <i>Yes, title is suitable.</i> <i>Abstract needs modification. Abstract to be concise providing problem, objectives, methodology and key results consistent with objectives and conclusion. A lot of results are discussed in Abstract. Key words to be in alphabetical order</i> <i>Subsections and structure of the manuscript are appropriate.</i> <i>Yes, the manuscript is scientifically correct</i> <i>Additional references to be cited?</i> (i)Modeling spatial distribution patterns to delineate irrigation and nutrient management zones for high-density olive orchards. (ii) Soil Quality and Spatial Variability of Physico-Chemical Properties of a Fruit Growing Area in Kluang, Malaysia. (iii) Use of remote sensing to evaluate the effects of environmental factors on soil salinity in a semi-arid area (iv)GIS integrated site-specific fertigation recommendations for Instructional farm, KCAET, Tavanur. (v)Relationship of soil properties to apparent ground conductivity in wild blueberry fields. Additional Comments 1. <i>Data revealed that low variability was observed in soil pH (CV % = 4.92) while moderate variability was observed in soil electrical conductivity (EC) (CV % = 26.6) and SOC (CV % = 46.1). Please explain above phenomenon by referring other studies in the same region.</i> 2. <i>Descriptive statistics and Geostatistical analysis are important for understanding the spatial variability of soil properties for sustainable soil resource management under citrus orchards of deep medium black soil of Madhya Pradesh. The pH in study area was slightly acidic to alkaline in nature with normal electrical conductivity. Please compare soil properties in Nagpur region where orchards are also produced.</i> 3. <i>Geostatistical analysis revealed that pH had low spatial variability whereas EC and SOC had moderate variability. Whether drone technology can be used for such study?</i> 4. <i>Mapping of SOC content in soil indicated that around 2.00% of area had SOC content <0.25% and >0.75% while around 96.0% area had SOC content between 0.25 to 0.75 %. Please prepare 2D map of the area and include in Manuscript. Showing different colours.</i> 5. <i>The maps generated by geostatistical analysis will be helpful to understand the</i> 	

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	<i>spatial distribution of respective soil property and proves useful for site-specific soil nutrient management in mandarin orchards of the area. Whether there is need of any fertiliser for better growth of Orchard, please discuss.</i>	
Minor REVISION comments		
1. Is language/English quality of the article suitable for scholarly communications?		
Optional/General comments		

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>	

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