

Review of: "Spatial Analysis of Soil Fertility Using Geostatistical Techniques And Artificial Neural Networks"

Angélica Santos Rabelo de Souza Bahia¹

¹ Universidade Estadual Paulista

Potential competing interests: No potential competing interests to declare.

The manuscript aims to evaluate the spatial variability of soil fertility based on measurements of 10 soil variables in the field. To achieve this, the authors used the geostatistical kriging method to create continuous maps, and the neural network to classify the soil fertility into five categories. The article is well-written and presents a promising methodology for advancing pedometry. However, some corrections are needed to improve clarity and understanding.

Firstly, I suggest that authors standardize all citations, units, and references. Furthermore, it would be interesting to review the English language.

The authors should clearly specify the optimal number of classes based on the presented data. To address this concern, it would be valuable if the authors conducted an external validation using data that was not used in the model. This would demonstrate an improvement in the confidence and accuracy of the Fuzzy Kohonen Clustering Network.

In order to provide readers with a better understanding of the agronomic importance of the selected attributes, it would be helpful to delve deeper into the discussion of cause and effect. This could involve exploring the relationship between soil management, soil genetic properties, and soil-landscape interactions, among other factors. I recommend expanding on these topics to enrich the work.

I hope that these comments are useful to you. Let me know if you have any questions or need further clarification.

Regards,

Angélica Bahia