

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

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**Potential competing interests:** No potential competing interests to declare.

This study evaluates soil fertility in two steps: 1) by preparing individual soil property layers using the Ordinary Kriging interpolation providing the continuous data and then 2) integrating them all in a map presenting different fertility classes using a fuzzy Artificial Neural Network (ANN). To achieve this, a systematic sampling method is employed to select 70 samples, with each sample encompassing measurements for 10 soil variables. The study addresses one of the important issues focusing on the spatial variation of soil fertility and its importance for management purposes. I recommend publishing this manuscript after making some minor modifications.

Here are the minor comments:

1. The rationale behind selecting ten variables is not apparent. It is advisable to reference prior research that establishes the impact of these ten factors on soil fertility. Alternatively, a brief paragraph could be added to the manuscript to elucidate how these factors specifically contribute to soil fertility.
2. While I observed the utilization of descriptive statistics to analyze patterns and trends within the values of a single variable among samples, the correlation between ten variables is not explored before incorporating them into the fuzzy ANN. It is advisable to investigate the correlation among these ten variables as they could be correlated, potentially leading to issues of multicollinearity.