

# 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.

I perused the manuscript "SPATIAL ANALYSIS OF SOIL FERTILITY USING GEOSTATISTICAL TECHNIQUES AND ARTIFICIAL NEURAL NETWORKS" which uses soil data collected using regular sampling grids of 30 m spacing (N = 70) in Romulo Gallegos. The area is almost flat or has a gentle slope (<5%). In total, the authors collected 10 variables each from these survey grids. The Ordinary Kriging and Fuzzy Kohonen Clustering Network (FKCN) were used for soil property maps and soil fertility classes. However, it is not clear as to what constitute soil fertility maps, and what are soil fertility classes. Also, the author did not explain why they decided to use these methods.

The authors maintained that they used cross-validation, but I failed to understand what kind of cross validations was used. was it data split into training (e.g., 80 %) and testing (20 %) by some sort of split or leave-one-out or what? It is not clear. As per the cross-validation strategies the results look okay.

At this stage the manuscript has potential to be published after major revisions. I have provided my comments in the attached PDF. It was difficult for me to delete words and correct sentences in PDF; therefore, I converted to pdf to Microsoft Word. The resulting document may not be as good as the original pdf, but I believe that authors will get the idea.

Thank you!