

# GIS-BASED CLUSTERING FOR CHARACTERIZATION AND IMPLANTATION OF VINEYARDS IN REGION OF TÁVORA-VAROSA

BRITO, Manuel, LEMOS, Carlota

Agrarian School (ESAV), Polytechnic Institute of Viseu (IPV)

[mbrito@esav.ipv.pt](mailto:mbrito@esav.ipv.pt)

In 1989, the Távora-Varosa region was awarded the Denomination of origin, the first national wine-growing region demarcated for the production of sparkling wines. The morphological characteristics allow to create fresh wines with good acidity. Thus, it was intended to characterize and map the region in terms of elevation, slope, aspect and vineyard implantation. For the delimitation, the specifications of IWV1, CAOP2 and RDD3 limits were used. The altitude data were obtained from ASTER GDEM4. Slope and aspect maps were produced and the region was subdivided into a polygon fishnet 30x30m. The vineyard areas were obtained from COS20155. A cluster analysis with integration of the descriptive analysis using ARCGIS (v10.5) and SPSS (v25). There was an average elevation of 664.03m, maximum of 1106m and minimum of 193m, average slope of 9.210 and maximum of 45.040, being approximately 40% of the area of vineyard located above 600m. We agrouped the region in 7 clusters according to the variables and produced a digital cartography to support the analysis results. This study designed of a tool to support decision-making for the implementation of vineyard areas depending on the characteristics for the final product.

## References:

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