

Examination of the Socioeconomic Impact of Soil Diversity in Semi-Arid Regions on Agriculture: A Case Study in the Tissemsilt Province

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Abstract : The Tissemsilt Province occupies a natural transitional zone and is dedicated to cereal production, dry forage, and livestock farming. It encompasses an agricultural domain covering an area of 181,097 hectares, of which 143,451 hectares are considered arable land. A field study was conducted along a west-to-east transect, covering six zones within the province, including Maacem, Ammari, Tissemsilt, Khemisti, Laayoune, Theniet el Had, and Taza. Random soil samples were collected from each region for laboratory analyses to assess soil types and quality, ultimately aiming to identify soil diversity within the Tissemsilt Province. Within the agricultural zones, approximately 40 soil samples were collected, revealing that the province contains moderately high-quality clayey soils, semi-rich in organic matter. However, as one moves southward, this richness diminishes. This leads us to predict that the agricultural zone is an ideal region for cereal cultivation. Nonetheless, this situation is challenged by the decreasing precipitation, which affects overall yields.

Keywords : soil, biodiversity, semi-arid, agriculture

Conference Title : ICAACS 2023 : International Conference on Agriculture, Agronomy and Crop Sciences

Conference Location : Istanbul, Türkiye

Conference Dates : November 13-14, 2023