CEC, pH, Electric Conductivity and ESP Study in Sodic Loam Clay Soils

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Agriculture is one of the main sources of economy in Peru, the secondary effects that can cause the use of different fertilizers in agriculture gave rise to this research. The research seeks to perform a simple soil analysis. This analysis serves us as prevention, since according to the parameters shown in the inquiry, we can determine how the increase in sodium varies and, accordingly, take immediate measures. The research was carried out in three spaces, the first one was the geographical area from where the samples were collected. After the soil samples were duly sieved and selected, the second space would be the laboratory. First, the analysis of the CIC is carried out, the second procedure performed in the laboratory is the determination of the electrical conductivity. Finally, we move to the third space, where the assessment of the PSI and PH parameters, the analysis of the results and the respective conclusions of the research will be performed. The increase and buildup of Na in the soil makes it more alkaline, the soil loses its capacity for aeration and infiltration, leading to infertility. On the other hand, in accordance with the statistical results we can observe that there is a significant difference in all the parameters assessed. Such is the case that the results are corroborated with the theoretical part. The methodology used was adequate since there were three GE and one GC, a viable chemical formula was followed to find the PH and PSI. Ammonium acetate saturation procedure was used for CIC; the potentiometric procedure was used for the CE. Thus, the experimentation process was effective.

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