"Salt water on the growth of basil plant in Makkah Al-Mukarramah region"

Secondary 24 in makkah

Introducing: Manar Meshaal Alharbi – Mayar Meshaal Alharbi - Rimas Bandar Alharbi – Rival Fawzi Alharbi

Methods

Globe devices:
Conductivity device: to measure electrical Conductivity
Salinity tables to measure the salinity of water.
Water acidity (PH) meter
pens and papers A computer for entering readings and
analyzing the data
Glass tube inserted.
Methods
Conclus

Conclusion

It was shown from this study that the increase in salinity in the water of Makkah Al-Mukarramah region is inversely proportional to the acidity of the water, and that the relationship between the salinity of the water added to the soil and plant growth is an inverse relationship, and therefore the greater the salinity in the water, the lower the growth of the plant because the high concentrations of salt, the water harms the plant with a growth stimulating factor, which is dried figs as an added fertilizer.

Materials and method

In this research, an experiment will be conducted to find the fastest and best way to help the basil plant grow in the Makkah region.
Directions:
We have two basil plants:
The first plant was dried figs (manure) an watered with saltier water. And our symb for it (1)
The second plant we run on it the traditional method we water it with desalination water (tap). And our symbol for it (2)

Sources

Acosta-Motos, J. R., Ortuño, M. F., Bernal-Vicente, A., Diaz-Vivancos, P., Sanchez-Blanco, M. J., & Hernandez, J. A. (2017). Plant responses to salt stress: adaptive mechanisms. *Agronomy*, *7*(1), 18.
Derbala, Asaad Abdelkader (2022) "Engineering factors affecting basil growth." *Egyptian Journal of Agricultural Engineering* 39.4: 525-536.
Faculty of Science | Research | Effect of Drought and Salinity on Germination and Growth of Basil Plant (kau.edu.sa)

https://2u.pw/aD50rk
https://2u.pw/4LRiYB
https://2u.pw/ZXEMj0
https://2u.pw/nttAM6

The Problem

This study aimed to reveal the extent to which water salinity affects basil plant growth.
This research is limited to monitoring the effect of water salinity on basil plant growth in Makkah Al-Mukarramah region - Kingdom of Saudi Arabia over a month starting from 21-10-2022 until 4-11-2022 at the same time of each week.
This study relied on the experimental approach by measuring the protocols of salt water and tap water (transparency - salinity - acidity - electrical conductivity - nitrates) and adding dried fruit (dried figs) as a supporting fertilizer.
There were questions whether there was a relationship between plant growth and saltier water?
Will the plant grow faster in (saltier water with dried figs) or (tap water) will it be faster and better?
Is there a relationship between plant growth and saline water?
Will the plant grow faster in (saltier water with dried figs) or (tap water) will it be faster and better?
Finally, this study recommends major studies and research on the effectiveness of using brackish water during plant irrigation.
Improving the chemical and physical properties of water and finding desalination plants for groundwater wells in agricultural areas