DEPARTMENT OF ZOOLOGY

TTWRDC (G) MAHABUBABAD-506101

STUDENT'S STUDY PROJECT

Topic: Salt - Friend or Antagonist

Academic Year: 2019 - 2020

Undertaken by

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Under the Supervision of

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Title of The project : Salt - Friend or Antagonist

Subject : Zoology

Project Head : M.Vanaja

Deportment : Zoology

Head of The Department: M.Vanaja

Number of The Team Members of the project : 6

Class : B.Sc. BZC

Names of the Team

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Signature of The Lecturer :

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Abstract:

The objective:-There are many countries in the world that suffer from interfile or salty soil. This can drastically affect the citizens ability to grow food crops. The basis for this project was to determine if plants would die when a saline solution slightly less than the Oceans was watered into the soil. If they did, at what level of salinity would the plants cease to grow and die. Depending on the plants salt toleration; it may be Possible to grow certain plants in salty soil...

Methods/Material:

Nine beans, nine Zucchini, and nine Lettuce seeds were cultivated in indoor pots.

Each type of plant was then watered at three different Salinities: three of each type lites, and three of each type as controls with normal fresh water.

After about ten days of testing, all the experimental plants were dead. Consequently, four beans, four lecture, and four zucchini plants were re-grown, maintaining the regular watering of the healthy controls.

Two of each plant were wetered with 5gr of salt per liter, and two at 10gr of salt per liter; the plants progress was observed every day.

Result:

At 15gr and 30gr of salt per liter, the plants died relatively quickly. The lettuce were the less tolerant plants as they died first, followed by the zucchini and beans at 30gr of salt per liter, and finally the zucchini and beans at 15gr of salt per liter.

The bean plants survived longer than both the zucchini and lettuce. In the second set of testing, though, reaction time decreased drastically, all plants at 10gr per liter of salt and 5gr per liter of salt showed salt spots by one week and a halt.

They then continued to become floppy by the end of the second week.

Conclusions/Discussion:

From the original test, the result showed that zucchini, beans, and lettuce plants could not tolerate a level of salinity greather than or equal to 15gr of salt per liter of water. The second experiment showed that plants could not survive healthily when 5gr of salt per liter was watered into the soil everyday.

It would be difficult to effectively grow these plants, and probably others. Similar, in salty soil without them dying however, some plants are more tolerant than others, as the bean plant seemed the hardiest towards salt in the first test.

The project is a fair test designed to see salts affect on plant growth.

Signature of the students:

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