



**CALIFORNIA STATE SCIENCE FAIR
2016 PROJECT SUMMARY**

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| Name(s) Joseph M. LeBeau | Project Number J1813 |
| Project Title Does Salt Water Exposure Affect Radish Seed Germination? | |
| <p style="text-align: center;">Abstract</p> <p>Objectives/Goals The objective of this study is to determine what happens to germinating seeds when salt enters the soil in their environment.</p> <p>Methods/Materials Six 3x3 plastic plant cell containers, potting soil, radish seeds, dietary scale measuring up to 2lbs/907g, inch ruler, digital scale (120g x 0.01g), 2 ounce plastic syringe, pool salt, and tap water.</p> <p>Results The results of my investigation of the effect of salt-water on the germination of radish seeds showed that salt in the soil caused the seeds to struggle to grow. At the end of 3 weeks, the radish seeds tested in salt-water could not tolerate the salt-water exposure. These plants sprouted, however they failed to mature. They measured shorter and smaller in size than the control group and the foliage was yellow and light green in color. The radish seeds tested in tap water grew well. These plants had good weight, height, foliage, and showed signs they would continue to mature because of new plant growth.</p> <p>Conclusions/Discussion When salt water enters the soil, the salt draws water from the plant to itself giving the plant almost no water. I concluded that because of this the seeds could not get enough water, so they struggled to grow. The control group had a proper amount of water, so they were able to grow and mature. People that are going to grow seeds near salt-water pools or plant near a road that salt is sprinkled on, need to be aware of the location. I recommend that they plant farther away or create some type of barrier so that run-off water doesn't reach the seeds and/or plants.</p> | |
| Summary Statement I exposed radish seeds to salt-water and found that it had a negative impact on their growth. | |
| Help Received None. I researched and performed the experiments myself. | |