Does Water pH Affect Plant Growth?

Schnabel, Addie

The purpose of the project I conducted was to test the short-term effect of changing water pH on pea plant growth. Changing the pH of water was supposed to simulate how polluted water effects the environment/life. I want to now just exactly how pollution is effecting the way plants early growth and development. In this experiment, pea seeds were first put in to individual growing containers. I then waited until the seeds had grown into plants and were established and were at least 4 cm tall. The number of plants that came up were split into 5 different groups; 1 was a control group and was watered with water, and each of the other groups were either watered with water-based solutions that had pHs of 5,6,8, and 9. The application rate of the polluted water was 20mL per plant and they received that treatment once a week for three weeks. I measured the plants in centimeters and recorded the data. The data that I received was very conclusive that water, which has a pH of 7, kept the growth of the plants rising consistently and is the best for plants. In conclusion to the experiment I conducted I found that water that is not polluted and has a neutral pH of 7 is best for growing and developing plants. By changing the water pH, it hinders the way plants grow and ultimately kills plants.

Awards Won: