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| [Abstract](http://docs.google.com/abstract.html)  [Introduction](http://docs.google.com/intro.html)  [Hypothesis/Prediction](http://docs.google.com/hypo.html)  [Materials](http://docs.google.com/material.html)  [Protocol](http://docs.google.com/protocol.html)  [Literature Review](http://docs.google.com/lit.html)  [Data](http://docs.google.com/data.html)  [Statistical Analysis](http://docs.google.com/stats.html)  [Graphs](http://docs.google.com/graphs.html)  [Images](http://docs.google.com/images.html)  [Conclusion](http://docs.google.com/conc.html)  [Works Cited](http://docs.google.com/works.html)  [Recommendations](http://docs.google.com/recc.html)  [Acknowledgements](http://docs.google.com/ack.html)  [Biology Updates](http://docs.google.com/updates.html)  [Home](http://docs.google.com/home.html) | **Abstract**:  Although many researchers study the effects of acid rain on the environment, the goal of this project is to use the environment for solutions for a man-made problem. Acid rain is formed as a result of Sulfur dioxide and Nitric oxides being released into the atmosphere and later condensed into water soluble acids, specifically Nitric and Sulfuric acids. The idea of using large quantities of plants, more specifically grasses, logically provides a solution for the environmental problem of imbalance. Ryegrass has been observed in a pH as low as 5.0, suggesting that Ryegrass can thrive in acidic conditions.  Acid rain is characterized with a pH of 4.4 and below. This research project was formulated around the worst case scenario, with pH�s as low as 2.0 to 3.5. In order for the data to be accurate it was necessary to create a man-made closed system, assuring that no extra solutes or substances could reach the grass and its seeds other than what was originally intended. After the 30 day growing period notations such as color, stem length, root length, number of leaves, maturity and other distinguishing characteristics were observed.  The results concluded that the pH in the soils greatly increased, landing in the range of 5-7. In the low pH�s such as 2.0 and 2.5 the Ryegrass roots appeared orange in color and the blades of grass had a color change but maintained constant turgor pressure. The nodes, or joints, found along Perennial Ryegrass severely bent in different directions only in the low pH�s. Therefore, this research suggests that Ryegrass over a period of time assists in the absorption of acid from the soil. |