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| ***� Why Acid Rain Makes Plants Go Brrr�*** ��� An Abstract |

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|  | **����������� The purpose of our experiment is to attempt to investigate and verify our hypothesis that acid deposition causes a dangerous slowdown in plant metabolism by increasing to toxic levels the amount of soluble aluminum available for plant uptake.� In addition, we tried to determine if treating the affected plants with a buffering solution could provide a remedy to the problem.� We began our experiment with three groups of fifty radish plants: a control (blue) group, a test group (red) that was treated with simulated acid rain, and a second test group (green) that was treated with both simulated acid rain and a buffering solution.� After two weeks of treatment, the plants were placed for one hour in a 40� F environment and then another hour in a 20� F environment.� We predicted that those plants treated with unbuffered simulated acid rain would survive at a significantly lower rate than those that were buffered or treated with neutral water due to aluminum toxicity induced by the acidic environment of the growing medium.� This toxicity would decrease the affected plants� metabolism and impair their ability to quickly close their guard cells and stoma to avoid freezing.� We recorded the root length, in addition to the survival data, of each plant as a measure of overall health.**  ����������� The results supported only half of our hypothesis and prediction.� While, the group treated with simulated acid rain survived at a rate much lower (42%) than the control group (72%), the buffered group only survived at a rate of 46%.� We concluded that acid deposition does indeed cause a dangerous slowing of plant metabolism through aluminum toxicity that cannot be effectively reversed through the use of buffers.� |  |
| **�����������������������������**  **�������������������������������������������** [**Home**](http://docs.google.com/Title.html) **|** [**Abstract**](http://docs.google.com/Abstract.html) **|** [**Acknowledgements**](http://docs.google.com/Acks.html) **|** [**Introduction**](http://docs.google.com/Introduction.html)  **��������������������������������** [**Hypothesis**](http://docs.google.com/Hypothesis.html) **|** [**Procedure**](http://docs.google.com/Procedure.html) **|** [**Data**](http://docs.google.com/Data.html) **|** [**Statistics**](http://docs.google.com/Stats.html) **|** [**Charts**](http://docs.google.com/Charts.html) **|** [**Conclusions**](http://docs.google.com/Conclusions.html)  **�������������������������������������������** [**Pictures**](http://docs.google.com/Pictures.html) **|** [**Journal**](http://docs.google.com/Journal.html) **|** [**Works Cited**](http://docs.google.com/Works.html) **|** [**Recommendations**](http://docs.google.com/Recommendations.html) | | |
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