

Peer-reviewed scientific article

Assignment Goal: Access, understand and evaluate information from a peer-reviewed scientific article.

Step 1: Read the following article located in the Reserved Reading section;

Liao B., Liu H., Zeng Q., Yu P., Probst A., Probst J. "Complex toxic effects of Cd²⁺, Zn²⁺ and acid rain on growth of kidney bean (*Phaseolus vulgaris* L)." Environmental International, 2005; 891-895.

Step 2: Write a 2-3 page paper that includes the following information:

- Why are Liao and his co-workers looking at the effects of cadmium, zinc and acid rain on an important food crop?
- What is the hypothesis in this paper?
- Briefly describe the experimental design: What are the dependent and independent variables? Range of heavy metal concentrations and pH? How many plants did they use for each treatment? (n=?)
- Summarize the results and the conclusions in your own words; focus on Figures 1 and 2 plus the written description of results, especially section 3.4 "Injury symptoms" (you can ignore the detailed tables).
- Do the researches ask further questions based on their results? What type of experiments do you suggest that these researches do next based on the results presented in the article?
- What does it mean that an article is peer-reviewed? Why is the peer-review process important for reporting of scientific research?
- How does this experiment compare with your own acid rain experiment? What is similar? What is different?
- Did you learn anything new by reading this article? Was it difficult to understand?

Don't worry about understanding all the details in this article, focus on the points above

Step 3: Submit Paper in Assignment folder by **midnight EST, August 6.**

Grading: This assignment is worth 25 points (5% of the final grade). To receive full credit you need to address all the points listed above, and present this information in clear and organized manner with few grammatical mistakes and spelling errors.