Lichen Project Data Collection and Analysis

Field Ecology

This document will summarize your findings from the lichen project you carried out at the Noyes property. This is an individual assignment; please consolidate your work in a Microsoft Word document and send it to dan.bregar@corvallis.k12.or.us with the subject line "per. *X your name* lichen project analysis".

Please include all of the following sections (with headings):

1. **Question and Hypothesis**: In a brief paragraph, write your "What is the Relationship Between" question and add explanatory details. Include your full hypothesis from your proposal.

2. **Results**: You do NOT need to include all of the individual data you collected from each stick you examined. However, you should include:
   - Your summary data table that shows the average amount of lichen per stick in your three second factor categories.
   - At least three additional summary data tables that show a t-test calculation.

   All your data tables should be neatly formatted and labeled and copied into your Word document. Where appropriate, include some written information to clarify your data.

3. **Analysis**: To the best of your ability, answer the question you were addressing with this project. Was your hypothesis correct? Make sure you interpret your data tables, including an explanation of what the t-test values indicate. Your analysis should include all of the following parts:
   - A column graph for your first summary data table (properly formatted and labeled; copied into your Word document).
   - A paragraph that gives an overall answer to your question along with an indication of how your data supports that answer.
   - Three paragraphs – one for each t-test – that address your question with respect to one specific lichen. These paragraphs should include an interpretation of the t-test values.

4. **Reflection**: Discuss some of the possible sources of error for your project, along with an indication of possible next steps. In 2-3 paragraphs, make sure you answer these questions:
   - What were some possible reasons that your data might be inaccurate?
   - Even if your data IS accurate, is there a possibility that you have drawn the incorrect conclusion as to the answer to your question?
   - **Why** do you think you found the relationships you saw? In other words, what are some possible scientific explanations for your results?