

# Plants on Acid

## Swoyer, Julius, Kenner, Sutton

Presented in an introductory course for non-majors at Bucknell University

<b>Layout and Appearance</b>		
<b>Criteria</b>	<b>Positive</b>	<b>Negative</b>
<p>APPEARANCE: Is the poster neatly constructed? Do the text and the figures stand out against the background? Are colors and fonts used consistently? Is the text large and legible from 3–6 feet away?</p> <p>SECTIONS: Does each section begin with a descriptive heading? Is there sufficient space between sections? Do the sections naturally flow from top left to bottom right?</p> <p>BALANCE: Is there a nice balance between text and figures? Is there too much text?</p> <p>PROOFREADING: Is the text free of typos and grammatical errors?</p>	<p>Poster is neatly constructed.</p> <p>Nice use of colored paper for contrast.</p> <p>Font size is large and legible.</p> <p>Each section has a descriptive heading.</p> <p>Good use of space.</p> <p>Layout flows from top left to bottom right.</p> <p>Good balance between text and figures.</p>	<p>Reduce amount of text by using bullets for the main points.</p> <p>Gibberellic acid and abscisic acid are common nouns and should not be capitalized mid-sentence.</p>
<b>Content</b>		
<b>Criteria</b>	<b>Positive</b>	<b>Negative</b>
<p>TITLE: Does the title grab your attention?</p> <p>AUTHORS: Are the authors' names, affiliations, and contact information provided?</p> <p>INTRODUCTION: Were the objectives clearly stated? Do you understand why this study was done? Did you get enough background information to understand the system? Were any abbreviations defined for the general visitor? Were the hypotheses rational?</p> <p>METHODS: Were the methods described clearly and concisely?</p> <p>RESULTS: Were the graphs easy to understand? Were any graphics distracting?</p> <p>CONCLUSIONS: Do the conclusions match the data? Are reasonable ideas put forth to explain the observed patterns? Is there a clear connection between the conclusions and the original objectives?</p>	<p><b>Hypothesis</b> is clearly stated.</p> <p><b>Methods</b> are clearly described.</p> <p>There is a clear connection between the objectives and the conclusions.</p> <p>Potential sources of error are pointed out.</p>	<p><b>Title</b> is catchy, but does not hint at the results.</p> <p>For Latin names of organisms, capitalize the genus (<i>Brassica</i>), make the species name lower case (<i>rapa</i>), and italicize both. Use CSE in-text citation format<sup>1</sup> in the <b>introduction</b>.</p> <p>In the <b>methods</b>, do not describe routine procedures like cleaning quads and mats before use. Each item in the <b>methods</b> section could be shortened by eliminating “we” did this and that.</p> <p>Include a ruler as a scale bar in the photos. Add a caption to emphasize the important results.</p> <p><b>Graph format:</b> Line graphs with only two data points are a waste of space. <i>Better:</i> Use a clustered column graph to display the results of the four treatment groups side-by-side.</p>

<sup>1</sup> Council of Science Editors, Style Manual Committee. 2006. *Scientific style and format: The CSE manual for authors, editors, and publishers*. 7<sup>th</sup> ed. Reston (VA): The Council. 680 pp.

		<p>In the <b>results</b> section, the exact dates are not needed since the experiment was done in the lab.</p> <p>Do not make vague statements like “As our graphs (Figures 1–4) show;” instead, formulate the result with the hypothesis in mind. <i>Better:</i> Rosette plants treated with GA grew taller than those treated with water. Wild type plants, on the other hand, did not grow taller when treated with GA.”</p> <p>The <b>conclusions</b> are wordy. The data for rosettes do not support the conclusions (the rosettes treated with GA <i>did</i> grow taller than those treated with water).</p> <p>The error analysis suggests that the researchers did not carry out their work carefully (“the wrong seeds may have been [used]”).</p>
--	--	---