Dear JEI Editing Staff,

Thank you Editors and Reviewers for taking the time to review our manuscript and leaving insightful comments for us to improve our work. We have reviewed each comment and suggestion and have made adjustments and rebuttals as follows.

Science Comments

Although statistical tests were performed on the plant height at first bloom data and growth time data, the same cannot be done for plant survival rates. Because the data for plant survival rates contains a single row with multiple groups, statistical tests such as a t-test, z-test, and analysis of variance cannot be done. And despite the proportions, a Chi-square test cannot be performed since the expected survival rate for both plants for each treatment is unknown.

Presentation Comments

In the introduction, the paragraph about water consumption was split and incorporated into other paragraphs. An additional source was added to further explain how chemical fertilizers waste water as well. Paragraphs in future sections were adjusted to make them more coherent and consistent in length. Some paragraphs, however, were kept the same to maintain their main ideas and the general flow of the section.

Extended description of the methodology in the Results section was incorporated into the Materials and Methods section, keeping only the essentials to briefly explain the six treatments.

The first paragraph in the Discussion section is a statement of this experiment’s results. This was clarified in the revised version. This paragraph was also combined with that on the wider ramification of this experiment’s findings for cohesion due to the similarity in topics.

The low power resulting from the limited sample size on the eggshells treatment for marigolds was explained in the Discussion section. Likewise, a lack in power explanation was provided for the discrepancy between the two statistical tests performed on garden cress for average growth times as ANOVA found a statistically significant difference while the Tukey-Kramer test comparing each treatment to the control did not.

Also in the Discussion section, mention of the limited variety of plants refers to the category of plant such as flower, herbs, and vegetables. The different variety could have affected results from our treatments, but this was not tested in this experiment. For instance, fruits and vegetables do not bloom when finished growing as flowers and herbs do, they ripen, which would require a different set of metrics for comparison. This is explained more clearly in the revised manuscript.

Figure Comments

The figure captions for the bar graphs (Figures 2 and 4) were rewritten with additional detail: the statistical test ran, its results, and the conclusion drawn from the test. Furthermore, the data table (Figure 1) was revised to include more data: sample size for each treatment as well as standard deviation for average growth time and average height at first bloom.

Certain features of figures were also revised. Error bars for the bar graphs were adjusted to display one standard error above and below the mean. Additionally, an asterisk was added to Figure 2, average plant height at first bloom, for garden cress, the bar graph with statically significant results. Because the post hoc Tukey-Kramer test did not find a statistically significant difference between the control group and the other treatments, an asterisk was not included in Figure 4, average growth time, for garden cress.

Photographs of the plants taken at the end of the data collection period could not be included into Figure 3 without distorting the frequency plot, which reduced the amount of horizontal axis values visible, or severely diminishing the quality of the photos, which made it difficult to distinguish between plants that bloomed and those that did not. As a result, they were not included.

Thank you once more for your consideration. We look forward to continuing the publication process of this manuscript with you.

Sincerely,

Andrew Nguyen and Ryan Nguyen