Artificial Selection Lab Report Guidelines

“Wisconsin Fast Plants: Hairy Inheritence”

(35 points)

1. Introduction (5pts)
   1. Introduce the laboratory experiment. Relate your experiment to concepts learned in class. Explain why we did this experiment in the first place.
2. Data Presentation (15pts)
   1. Create a data table in Excel.
   2. Include calculations of the mean, standard deviation, and standard error for Generation 1 (Parental) and Generation 2 (F1).
   3. Create a graph in Excel. Graph the mean. Include standard error bars. Be sure to include a title and labeled axes.
   4. Run a T-Test on the data to see if the two data sets are statistically different.
   5. Copy the data table (mean, standard deviation, and standard error) and your graph into your word document.
   6. Report the T-Test P-value.
3. Conclusions (15pts)
   1. Interpret the data. Discuss the results of the T-Test. Discuss what your results mean when you consider the original experimental question.
   2. Address the validity of the experiment. Were there any errors or issues in terms of the experimental design or conducting the experiment that should be addressed? Are you confident in the results? Why or why not? How might you improve the experiment?
   3. Is there a follow-up experiment that you would like to do? Any possible avenues for further research?

\*Submit your lab report as a Word Document to TurnItIn. Due end of the day Weds. 10/30/13.