**Case Study C**

**Instructions:**

1. What are the variables? Are they categorical or continuous?
2. Form a hypothesis about how the variables could be related (which is dependent, which is independent, why?).
3. Draw a graph of your predicted results.
4. Would you use a t-test or regression to test this?

**Case 1**

As you climb a mountain, the plants get shorter and shorter. Scientists interested in whether this was due to genetics or environment have taken plants from high and low elevation and grown them together in each environment.

**Case 2**

Productivity is one of the most important metrics in agriculture – how much of something can you grow on a piece of land? Ecologists are in interested in whether diversity impacts productivity. Some agricultural innovators are interested trying to grow multiple kinds of crops together. How might these ideas influence each other?