## Planting Science Journal

10/08/2021-I planted today. I did everything that we have for our experimental design. Each plant got twenty-five ml of water with no salt added to it.

10/13/2021-Today we met with our mentor on a zoom meeting. Our notes are that we should pull the plant out of the pot at the end of October, when our project ends, and measure the longest root, for our every-day measurements, above the soil, measure to the highest point of the plant, and average the measurements per cup, and compare the health of the plants to the control. All of the pots had plants sprouted except for one.

10/14/2021-We watered the plants with salt concentrations in the water today. Also, we measured the corn plants.

10/15/2021-The .1 and .4 salt concentration-watered corn plants are turning yellow. Today we measured and watered.

10/18/2021-We watered and measured the plants today. Some of the stems are a reddish-brown color. control\#3 finally has growth, and the seed and roots are visible on one of the plants.

10/19/2021-The .1 group of plants has some more plants that are turning yellow. The stems of the .4 group of plants are withering, All of the plants are leaning, and the stems are still red. We measured today.

10/20/2021-More plants in the .1 group are turning yellow. The stems of all of the plants are still red, which is the buildup of sugar, and are wilting, leaning, and droopy. We think that they may need more support. The plants being watered with the saltier concentrations have thicker stems than the controls. We didn't measure today, but we did water, and are going to once a week The leaves are oval-shaped.

10/21/2021-Things have pretty much stayed the same. Nothing has really changed about the plants since yesterday, except that they are droopier and more wilted. That might be because the soil is too wet. To solve this problem, we will water once a week The plants also probably need more support. We think that if we
stick a pencil in the pot and lightly tie string around the plants to hold them upright, but not disturb them. We didn't measure today.

10/22/2021-The 8 and control groups of plants have stopped drooping as much, after not being measured or touched for a while, and with watering them once a week The stems on all of the plants are still pretty wilted, and red. The .1 and 4 groups have gotten droopier from the salt. In one plant in each pot, the tips of the oval-shaped leaves are starting to turn brown. The 1 and .4 plants do not look as healthy as the .8, because the plants with the .8 salt concentration are straighter and not turning yellow, but they are growing much slower. The .8 and .4 plants' stems are much thicker than the control and .1 plants' stems. Many of the plants are still drooping, though. For support, we tried to use pipe cleaners, but it did not work We will probably try the pencil idea. We didn't measure today.

10/25/2021-The . 8 group of plants are mostly brown and yellow. The Control, 1, and . 4 plants also have this, but to a lesser extent. All of the plants' stems are wilted, droopy, and red, and all of the plants are leaning. This could be their lack of sunlight. We will just let the plants be. We also think that the salt is making them do this, as well as turning the plants yellow and brown. The controls seem the healthiest. They have the least amount of yellow and brown on them. They have white tips, and none of the other plants do. Also, their leaves and stems are bigger and thicker than the other plants, which is the opposite of last week for the stems.

10/26/2021-We put the plants under a grow light. We watered today. All of the plants are pretty much the same as yesterday, but seem to be dying and withering even more. The controls are doing the best, but not by much.
10/27/2021-We did not have school today due to a power-outage.

10/28/2021-I found one of the . 1 plants that had fallen out of the soil, and the bottom had mold on it. We think that this is from when we were watering it too much. The controls are definitely doing the best, as all of the other plants are mostly a dark brown shade, have wilted, withered, stems, and are leaning. The controls are leaning less, and still have a little bit of green on them. In . $4 \# 2$, all of the plants fell out of the pot. At least one plant has fallen out in every pot. We think that their condition is due to the soil having been extremely wet before we started watering them once a week The . pots \#1 and \#3, and the . 8 plants also have a lighter brown, beige color along with the dark brown.

Use this journal to write down what you do each day when you work with your project. You can include drawings, pictures, qualitative data (descriptions of plant's color, whether it looks healthy or not) and quantitative data (things you can count - number of seeds that sprouted in each pot, how tall the plants are...) Also record any errors or problems that occur.

10/29/2021-Today is the last day that we are measuring. The controls still have a little bit of the green on them. All of the rest of the plants have turned brown. Many of them have mold on them. There is no mold on the controls that we have noticed so far. In the rest of the plants, I noticed that some of the stems have bulges in them. Our plants were over-watered, and they have not really recovered from it.

Measurements

| Date | Contr <br> ol <br> \#1-(c <br> m) | Contr <br> ol <br> \#2-(c <br> m) | Contr <br> ol <br> \#3-(c <br> m) | $\begin{aligned} & .1 \\ & \# 1-(c \\ & m) \end{aligned}$ | $\begin{aligned} & 1 \\ & \# 2-(c \\ & m) \end{aligned}$ | $\begin{aligned} & .1 \\ & \# 3-(c \\ & m) \end{aligned}$ | 4 <br> \#1-(c <br> m) | 4 <br> \#2-(c <br> m) | 4 <br> \#3-(c <br> m) | 8 <br> \#1-(c <br> m) | 8 <br> \#2-(c <br> m) | 8 <br> \#3-(c <br> m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Use this journal to write down what you do each day when you work with your project. You can include drawings, pictures, qualitative data (descriptions of plant's color, whether it looks healthy or not) and quantitative data (things you can count - number of seeds that sprouted in each pot, how tall the plants are...) Also record any errors or problems that occur.

| $10 / 14 /$ <br> 2021 | 7.14 | 5 | 0 | 8.32 | 6.82 | 6.72 | 4.36 | 3.8 | 5.9 | 8.92 | 6.88 | 6.98 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $10 / 15 /$ <br> 2021 | 11.6 | 8 | 0 | 10.5 | 9.05 | 10 | 7.5 | 8.875 | 10.812 <br> 5 | 9.6 | 11.125 | 10.6 |
| $10 / 18 /$ <br> 2021 | 22.4 | 18.4 | 3.2 | 17.5 | 12.6 | 17.8 | 12.4 | 11 | 13.5 | 15.2 | 11.9 | 12.2 |
| $10 / 19 /$ <br> 2021 | 24.1 | 18.7 | 4.9 | 21.8 | 16.9 | 23.7 | 13 | 12.8 | 13.4 | 10.5 | 9.5 | 10 |
| $10 / 25 /$ <br> 2021 | 25.9 | 24.4 | 17 | 22.7 | 21.9 | 22.4 | 17.1 | 15.2 | 15.7 | 10.6 | 10.3 | 12.3 |
| $10 / 26 /$ <br> 2021 | 16.8 | 24.3 | 24.8 | 21.2 | 23.4 | 25.6 | 15.3 | 8.2 | 15.2 | 13.9 | 10.7 | 11.8 |
| $10 / 28 /$ <br> 2021 | 26.3 | 24 | 20.8 | 19.8 | 19 | 24.8 | 17.1 | 14.1 | 0 | 14.2 | 9.4 | 9.7 |
| $10 / 29 /$ <br> 2021 | 23.6 | 24.4 | 18.3 | 18.2 | 22.2 | 24 | 19.8 | 18.7 | 0 | 9.8 | 12.7 | 15.5 |

