

Julie  
Planting science  
Experimental journal  
Cheery Cherry Blossoms

## Julie's Planting Science Journal

**March 22, 2018-** Today we cut our seeds in to halves, without the outer shell, and the one we did not cut was the full. Then we planted two seeds in each cup one inch deep and  $\frac{3}{4}$  cups of planting soil. We are going to water then with  $\frac{1}{2}$  an inch of water every Tuesday and Thursday. There were no growths today.

**March 26, 2018-** Today we water our plants. We also saw some sprouts. For the full seeds the average height is 1.4 centimeters. The plants without the outer shells average is 1.3 centimeters. The average for the half a seed is .2 centimeters. There were no leaves on any of the plants. I noticed that the full seeds are growing the fastest but the without outer shell seed are growing pretty fast.

**March 27, 2018-** Today we measured out plants. The full seeds average is 3.7 cm. The average for the outer shell is 2.45 cm. The average for the  $\frac{1}{2}$  seeds is .5 cm.

**March 29, 2018-** Today we water our plants. We also measured the plants. The full seeds average is 10.1 cm. The average for  $\frac{1}{2}$  a seed is 1.1 cm. The average for the seed without the outer shell is 4 cm. I noticed that the seed that we cut in half is not growing as well. Without the outer shell is growing at a slower speed than the full seed but without the outer shell is still growing.

**March 30, 2018-** Today we measured our plants. The full seeds average is 12.7 cm. The  $\frac{1}{2}$  is 1.2 cm. The without the outer shell is 6 cm. Are plants have grown and are starting to get unsteady so on monday I am bringing in popsicle sticks to keep them steady.

**April 2, 2018-** Today we water our plants. I noticed that our plants have started to droop. Since they have started to droop a lot we are going to

bring in popsicle sticks. The averages for the plants are, full is 24 cm,  $\frac{1}{2}$  is 1.3, without the outer shell is 7.2.



This image shows all the drooping that is happening in the plant.

#### **April 5, 2018**

Averages are

Full: 32.5 cm

$\frac{1}{2}$ : 1.7 cm

Without outer shell: 11.9 cm

We have not put in the popsicle stick yet. The plants are still very droopy.

#### **April 6, 2018**

The averages are

Full is 34.4 cm

$\frac{1}{2}$  is 1.7

Without the outer shell is: 12 cm

We put in the popsicle stick and the plants are now sturdier. \

#### **April 9, 2018**

The averages for today are

Full: 30.5

Without Outer Shell: 13.7

Half: 2

The plants have started to droop. The plants have also started to slow down in the growing process. The popsicle sticks have not exactly helped.

### **April 10, 2018**

The averages are

Full: 32.75

Half: 1.95

Without outer shell: 14.05

The plants are so droopy and the popsicle sticks are still not helping.

### **April 11, 2018**

We did not measure our plants today because we had DARE and did not have much time.

### **April 12, 2018**

Our plants have started to smell very bad so we think they are starting to rot. We have also forgotten to poke holes in our plants buckets so the water has started to pile up on top and started to kill the plants since we are over watering them. We watered our plants today and the water started to pile up on top. We just poked holes in the plant and the plants smelled very very bad. I think they smelt bad because we have not been letting the water out of the cups the plants had a lot of water to let out. The popsicle sticks have not really helped the plant they are just not helping the plants drooping. We are not taking the averages today. We are making sure all the extra water is out of the plants cup so they are not as bad smelling right now so all the plants are helping. There is still one plants whose water won't completely drain.



This is the plant that will not drain and the seed is floating to the top. Since we did not poke holes in the bottom of the cup it might have messed up our hole design.

April 17, 2018-

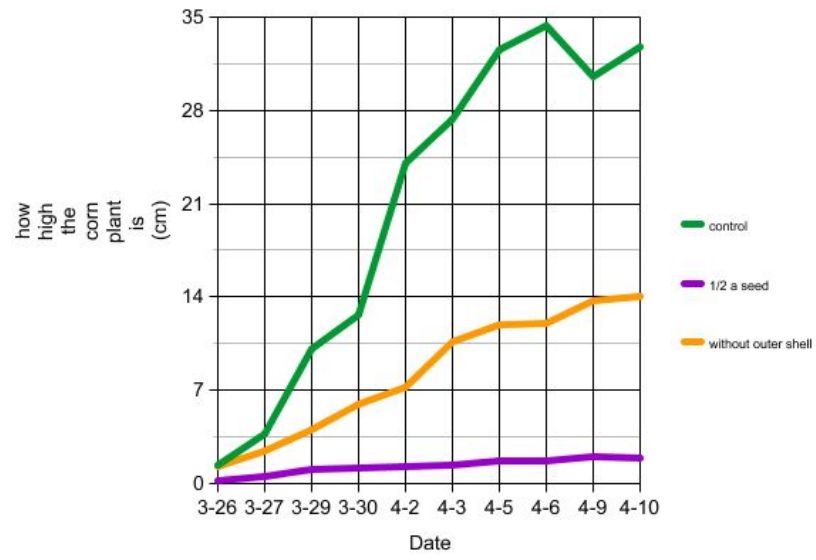
We have not been able to measure or water our plants because we are doing an experiment about a lab in NASA. We have not been measuring in our plants.

**May 3, 2018**

Our hypothesis was partly correct. The seeds that contained the entire embryo did indeed grow. The half seeds didn't grow because the entire embryo was not intact. The seeds might not have grown because we didn't poke holes in the cup for water to drain out so they may have drowned. We think that maybe because they were smaller seeds, they could not absorb the water as easily as the others. Also we think that we may have made a mistake when we were measuring the plants towards the end because the height average went down. Our half plants did not grow but one, our without outer shell seeds grew mostly one plant per cup, and our full seeds grew mostly two plants per cup. Our plants that we removed the outer shell on grew but the half a seed did not.

**May 4, 2018**

Will a plant grow if you don't use the whole seed



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