## Conclusion

Have you ever wondered which soil will have a greater impact on the growth of a soybean, potting soil or farming soil? This is what I tested in my experiment. First, I gathered all the necessary materials. Next, I distributed eight cups of soil into each of the ten pots, five potting soil and five farming soil. Then, I measured one inch deep into each pot of soil and planted the seed. After planting, I put all ten plants by a long window in my house so that each received equal light. I watered the plants with one cup of water every Monday, Wednesday, and Saturday. Over a timespan of thirty days, I measured the growth of the plants every five days until day thirty. Prior to the experiment, I hypothesized that if potting soil and farming soil are used to grow a soybean seed, then the farming soil will produce taller plants.

After thirty days of observing, watering and measuring the plants in the potting and farming soil, I had my results. Three of the plants in the potting soil failed to grow at all, while the other two plants grew to respectable heights. The average height for the soybeans grown in the potting soil was 16.26 cm tall. The seeds grown in the potting soil did not grow very well, however the farming soil plants had a more positive outcome. By the end of the thirty days, the plants in the farming soil grew an average of 49.66 cm tall. These results support my hypothesis proving that farming soil is more effective in growing soybean plants than potting soil. Nitrogen fixing bacteria are naturally found in dirt (farming soil) and the results of my experiment support the idea that soybeans need these bacteria to help them grow suggesting that potting soil may not contain these important bacteria.

I thought my experiment was pretty well organized, thought out, and performed but there are possible sources of error and ways that I could improve my experiment in the future.

A possible source of error for this experiment could have been the depth of the seed being planted. More or less soil could have been pushed back over the seed after the planting process which could alter the measurements of height. Another possible error could be in the way the plant was held up during the measurement process. It is an extremely delicate process and damage could have been done to the plant. If I were to repeat my experiment, I would have used an assistant to help with the planting and measuring process. I also would change the watering process by watering less frequently or with less water. My findings are important to anyone who likes to grow plants because this experiment suggests that planting plants in farming soil is more productive than using costly potting soil. The nutrients in our soil are a natural resource and valuable to a plant's survival and growth so people do not have to spend lots of money to purchase potting soil to grow beautiful plants despite what the companies who markets these products are saying to the public. This allows all people of socioeconomic backgrounds to have the opportunity to better their environments and homes with plants. By knowing the results of this experiment, all people who want to grow plants will not have to worry about their plant's survival if they use farming soil over potting soil.