Romaine Coastal Star Lettuce Crop Spacing

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Introduction

Crop spacing is a method of growing crops that maximizes land use and crop yield. By knowing the ideal crop spacing for romaine coastal star lettuce, farmers not only can maximize land use and yield, but also use less resources such as water while growing crops, thus reducing costs and environmental harm.

Research Question

What is the ideal crop spacing for romaine coastal star lettuce?

Methods

Four crop spacing patterns were tested; 6, 7, 8, and 12 inch. The pattern was created by using a seed roller to ensure that the pattern was consistent. All of the beds were given around 4-5 weeks to grow. When harvesting began, each week only the biggest heads were harvested. A yield weight was taken each week. During the first week a dry mass measurement was also taken to see the quality of the individual heads in each crop spacing. Three trials were done.

Data

Diagram of crop spacing patterns used.

- 6 inch spacing
- 7 inch spacing
- 8 inch spacing
- 12 inch spacing

Total crop yield versus spacing

The following chart shows the total crop yield versus crop spacing for each trial.

Dry mass versus variety

The following chart shows the average dry mass versus crop spacing for each trial.

Conclusion

It can be concluded that the six inch spacing is the best crop spacing pattern because of its high crop yields as well as dry masses. This pattern maximizes the land and uses the least amount of resources which has both economical and environmental implications. This pattern saves money on resources while also being beneficial for the environment.

There were some limitations while conducting this experiment such as weather and some difficulty while using the seed roller. Unfortunately, there was a bad hail storm which damaged the first trial of crops. There was also extreme heat which affected the crops as well. Another limitation was difficult using the seed roller. When using this tool sometimes the dibbles would make very light indentations which could not be seen so some estimations about space had to be made. Despite these minor limitations, it can still be concluded that the six inch spacing was the best pattern.

References