

Using scientific method

[Science](#), [Biology](#)



Maize in non-arable and arable soil) Topic: Maize in either non-arable or arable soil. Purpose: The main objective of the experiment was to investigate the impacts of nitrogen fertilizer on non-arable soil and arable soil. Moreover, the growing rate of maize into two different samples was also determined. (Brady & Weil)

Introduction:

Determining the growth of maize in either non-arable or arable soil: when the soil is referred to as non-arable, it means that it has very few conditions and differences (Brady & Weil). There are various samples of non-arable soil, they include; foremost levels of marshlands, availability of salts and sands, and pollution. Despite the addition of nitrogen into non-arable soil to make it arable, there are other ways carried out to make it arable, they include; digging and installation of wells and canal, and addition of tree for shading purposes. As the experiment progress, we will record differences when nitrogen fertilizers added to maize into two different soil samples.(Brady & Weil)

Hypothesis:

Since arable soil has been cultivated for many years, i believe that maize do better in the non-arable soil.(Brady & Weil)

Methods:

The experiment was called mineral nitrogen fertilizer. Various kilograms of nitrogen fertilizers per 100 acres used to get result, fertilizer statistics composed in an increase of 20kg at each acre. In addition to that, a nitrogen fertilizer per 100 acres was added to the yield per every year. As the experiments proceed maize at non-arable soil, grow at higher late than that

in arable soil.(Brady & Weil)

Results:

Table 1: Maize Yield from Arable Soil

Amount of Mineral Nitrogen Fertilization (kg per 100 acres)

Yield of Maize (mg of dry mass per 100 acres per year) in Arable Soil

0

8. 0

20

10. 7

40

13. 0

60

15. 2

80

16. 4

100

18. 2

120

19. 2

140

20. 8

160

20. 4

180

20. 1

Table 2: Maize Yield from Non-arable Sandy Loam Soil

Amount of Mineral Nitrogen Fertilization (kg per 100 acres)

Yield of Maize (mg of dry mass per 100 acres per year) in No arable Sandy Loam Soil

0

15. 6

20

17. 0

40

18. 2

60

19. 3

80

20. 0

100

20. 9

120

21. 2

140

21. 8

160

21. 1

180

20. 1

Conclusion:

According to my hypothesis, I was correct that maize in the soil, which is non-arable, it would grow at a higher rate than on arable soil.(Berlin De Gruyter.) As the experiment progress, we have noticed that maize in the non-arable soil grow at higher rate than in arable soil, every time nitrogen fertilizer added on it. On the other hand, as the fertilization process came close to 180kg per 100 acres, both were at the equal produce of 20. 1mg of dry mass. Perhaps this happened because arable soil has been in use for many years.(Berlin De Gruyter.)

References

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