



Wood Ashes Can Be A Solution to Farmers

Sabasaba Secondary School

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Introduction

Wood Ashes are the powdery materials produced after complete burning of wood materials. Ashes are mainly composed of calcium compounds which may act as liming materials, potassium and other trace elements. For over a long period of time here around Sabasaba secondary school people have been farming without getting good results. Even our school garden has been growing cowpeas plants so many times but all those times have been getting poor products. Because of this problem we came with the idea of applying wood ashes in our school garden.



Method

Preparation of three plots of land:

- A. Materials used: hoes, slashers, bucket, cowpeas seeds, wood ashes, artificial fertilizers

Procedure

i. Construction of garden

We chosen a small area in our garden, we cultivated the whole area and divided into three separate plots, for planting the same kind of seeds, i.e. cowpeas seeds.

ii. Experimentation

Our experiment was based onto three variables, the control experiment, dependent variable and independent variable.

In Plot A

We planted cowpeas seeds and we applied wood ashes by mixing it thoroughly with soil

In plot B

We also planted cowpeas seeds again but here we applied artificial fertilizer which we mixed thoroughly with soil in every hole where we planted the seeds instead wood ashes.

In plot C

We planted the same kind of seeds, cowpeas seeds but here we applied neither artificial fertilizers nor wood ashes.

After planting those seeds in three different plots, then water were applied in every morning, then after two weeks the seeds were already germinated and the length of the plants were measured in each plot after every two weeks



Results

iii. Data collection and analysis

Data were collected and recorded as shown in the table.

In the 12th week, the plants were already for harvesting, and their pods had the following features

Appearance of pods

In plot A the pods of cowpeas was much thicker as compared to those in plot C but less thick as compared to those in plot B

Appearance of seeds obtained

Seeds in pods of plot A were larger as compared to those in pods of plot C but not as larger as those in plot B

iv. Interpretation of the analyzed data

By looking on the trend of the data collected above, in the second week shows that the plants in both three plots had the same length but in the sixth week and the next consecutive weeks plants in plot A were much longer as compared to those in plot C this is because in plot A we applied wood ashes but in plot C not.

Week	Length of 3 plants in Plot A (cm)			Length of 3 plants in Plot B (cm)			Length of 3 plants in Plot C (cm)		
	1 st	2 nd	3 rd	1 st	2 nd	3 rd	1 st	2 nd	3 rd
2 nd	2.0	1.8	2.1	2.3	2.4	1.9	2.3	1.8	2.3
4 th	7.9	8.5	7.2	8.4	8.9	7.5	7.1	7.1	6.8
6 th	18.4	18.8	17.3	22	23.4	21.7	13.5	14.6	12.7
8 th	28.8	29.2	27.9	32	30.4	33.6	22.9	20.3	21.7
10 th	51.2	50.9	53.2	62.4	59.7	60.2	34.7	33.8	30.9

Conclusions

Our school garden which has been for a long time producing poor yields of crops, and the low cost of obtaining ashes, wood ashes may be recommended to be used to add some nutrients to soil. Not only to our school garden but also may be recommended to other people also..

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