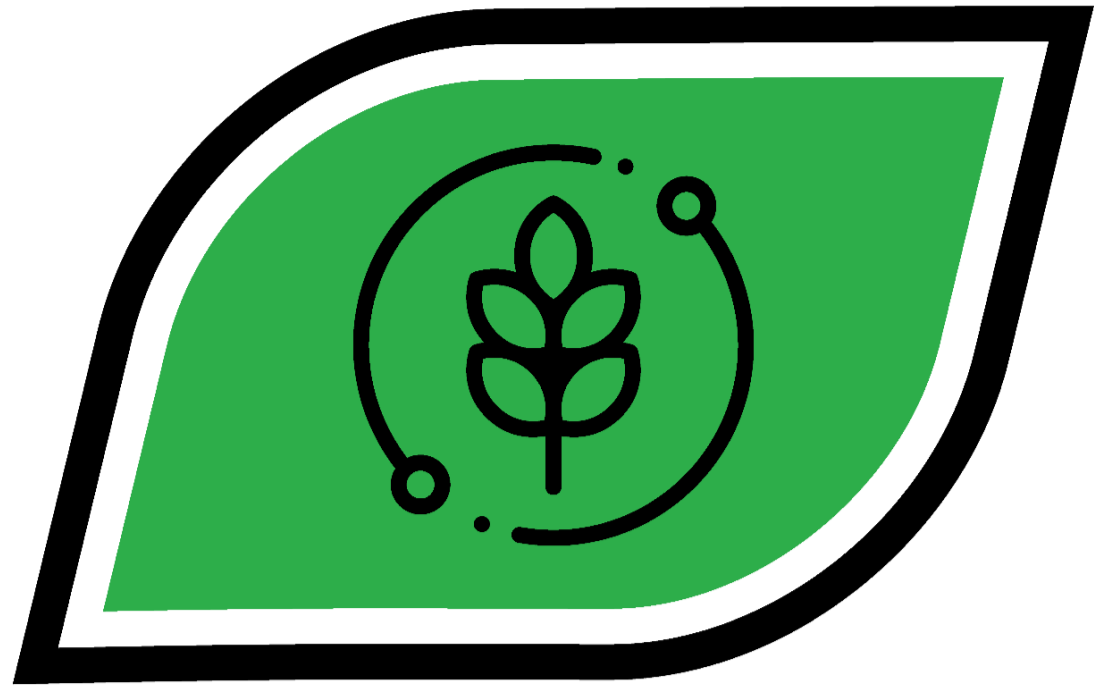


# Investigation and Analysis of Ilobhoka as a Natural Solution To Low Milk Production



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## Introduction

Ilobhoka is a natural plant that grows well in marshy and damp areas. Morphologically the ilobhoka plant are broad with net vegetation. Most ruminant animals such as rabbit, cows and goats prefer to eat ilobhoka since it have a salty taste. The livestock keepers tend to feed this kind of plants and assume that it contain various nutrients for proper growth and development of the animals. This plant is said to be rich in protein, carbohydrate, as well as vitamins. This project was done in order to investigate the effect of ilobhoka to ruminant animals as a solution to low milk production for ruminant animals that produce low milk

## Method

The method used in this project was experimental and observation method. This experiment was done in the field as well as in the laboratory. The field set up was started with the germination of ilobhoka seeds through hydroponic system. The following procedures were employed to germinate the ilobhoka seeds through hydroponic system.

The seeds of the ilobhoka were obtained from the forest and soaked in the water for 24 hours. When the testa was softened the water was filtered using a filter funnel. The remaining seeds germinated and become seedlings after 40 hours. After 72 hours the resulting seedlings were put in water solution containing complete culture solution.

### 2.1 Preparation of culture solution.

The culture solution of the plant was prepared using the following ingredients in order to accelerate the plant growth.

Exactly 50 different bottles were collected and filled with the complete culture solution. In each culture solution the germinated seedling was placed then well tightened with cotton wool and rubber stopper.

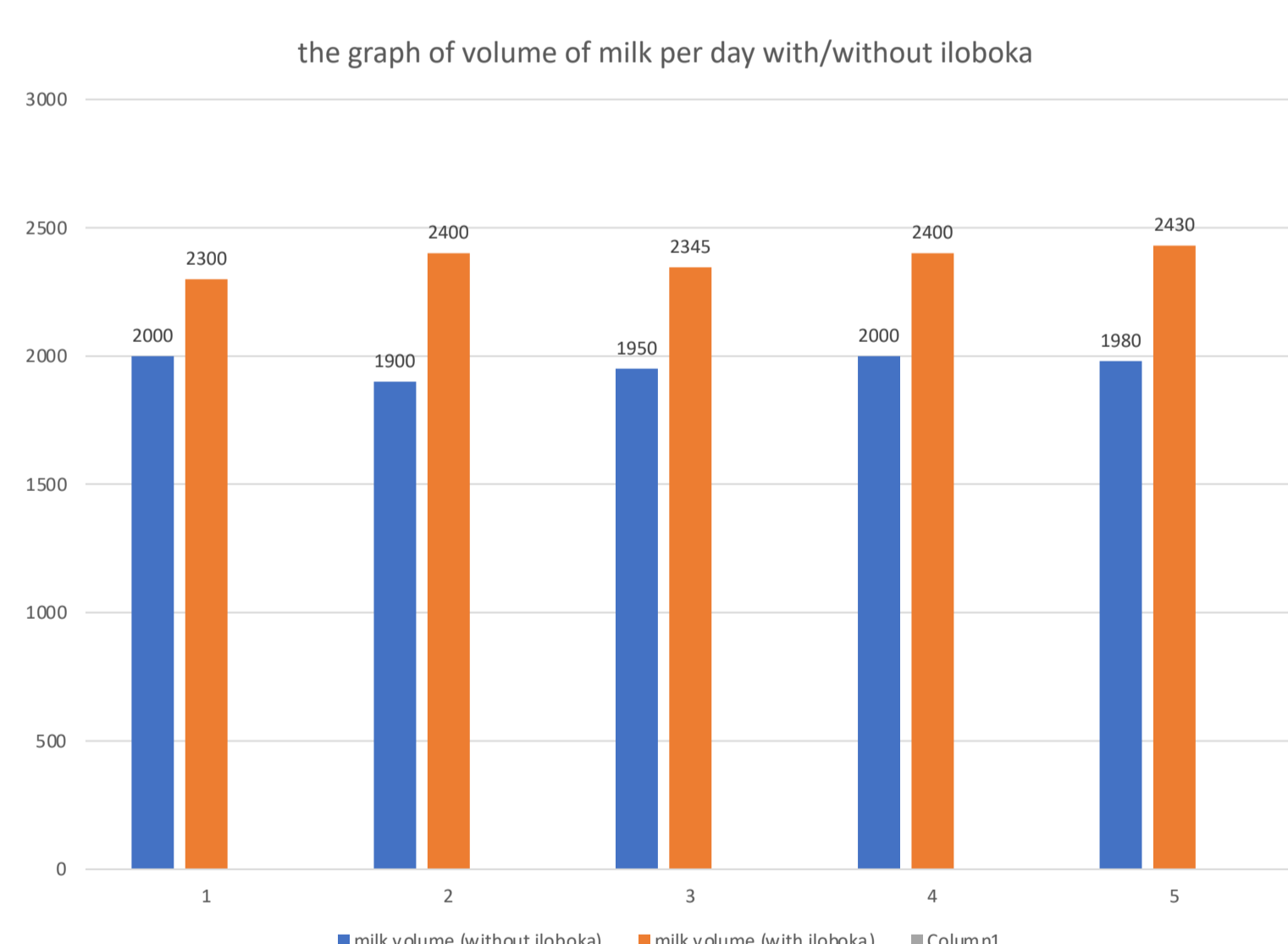
After two weeks each seedling became the mature plant. This is because the plant grown through the culture solution grow fast since they acquire the required nutrient for the plant growth.



## Results

After the plants were harvested then cut into small pieces ready for feeding the lactating cow. The data were recorded for ten consecutive day. The comparison were made for the volume of milk production when the cow was fed with maize straws only and when cow was fed with the maize straw together with the ilobhoka plants. The data were collected twice, early in the morning and during evening. The results were recorded as indicated in the table below.

From the results it shows that the volume of milk increased when the ruminant animal was fed with ilobhoka plant. However, the volume of milk was not constant due to various reasons such as temperature variation, amount of water taken per day as well as the amount of the ilobhoka plant that were consumed per day.



day	Volume of milk (without iloboka)cm <sup>3</sup>	Volume of milk (with iloboka)cm <sup>3</sup>
1	2000	2300
2	1900	2400
3	1950	2345
4	2000	2400
5	1980	2430

## Conclusion

From the results shown above it was concluded that ilobhoka plant is suitable to increase milk production in ruminant animals. it is rich in protein and have plenty of water being reserved in it. From the above hypothesis i show that the use of ilobhoka will solve the problem of milk production in ruminants.

## References

- TIE(2008)Biology for secondary school book four)Dares salaam Tanzania
- TIE(2022) biology for secondary school book three Dare Salam Tanzania

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