

443/3
AGRICULTURE PROJECT
Jan. - July 2025
(Declaration form)

THE KENYA NATIONAL EXAMINATIONS COUNCIL



Kenya Certificate of Secondary Education

443/3 AGRICULTURE PROJECT REPORT

DECLARATION BY CANDIDATE

This is to certify that this is a true project report of my Agriculture Project and that it contains the details of the operations.

Name of the Candidate	Index No.	Signature
MWITI BRENDA NKATHA	11241001282	

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Enter the score awarded in the box below.

Agriculture Teacher

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Project Report

PROJECT TITLE:

Graphing of

Avocado Trees.

Brenda

Nkatha Mwiti

Index Number; 11241001282

Group; 7

INTRODUCTION.

Grafting is the practice of uniting two separate woody stem. The part of the rooting system is known as rootstock and the part which is grafted onto the rootstock is the scion. The ability of scion and rootstock to form a successful union is termed as compatibility. We chose grafting of avocado fruit trees. Each group was issued their number of trees in which we were guided on how to graft our trees.

BRIEF OVER VIEW OF THE PROJECT.

Before the trees arrived, we the agriculture student were able to prepare a nursery bed which was set aside in a secure place in the school farm. The construction of a shade was done and it was good to go. The trees arrived and we neatly arranged them per group and we irrigated the trees everyday. The trees continued to mature and we eventually grafted them.

PROBLEMS AFFECTING THE COMMUNITY.

- i. High cost on the purchase of fruit enough for all the student.
- ii. Scarcity of fruit for consumption.
- iii. Exposed land leading to soil erosion.
- iv. The fruit trees face attack from pest and diseases.
- v. The trees take a longer time to mature.

PROJECT OBJECTIVE.

Grafting of avocado fruit trees mature earlier than those propagated from seed that is why grafting shortens the maturity age to 2-5 years. Grafting fruit trees would solve the problem of scarcity of fruit in the school and also reduce the cost of buying the fruits. It can also act as a covercrop to protect the soil from being eroded. This project has equipped us with knowledge of grafting.

PROJECT DESCRIPTION.

The following are members of my group.

- | | |
|--------------------------|-------------|
| 1 Brenda Nkatha Mwiti | 11241001282 |
| 2 Shammah Vuyanzi Ngedi | 11241001267 |
| 3 Stacie Klapira Kambu | 1124100270 |
| 4 Melanie Esther Nyokabi | 11241001279 |
| 5 Sylvone Macera Muturi | 11241001261 |
| 6 Stella Pelu Njeri | 11241001284 |

The method used for grafting was whip grafting where the rootstock and the scion should be of the same diameter or pencil thick and should be compatible. The materials that we required for grafting are sterilized scapel, rootstock, scion. later we put the shade and watered the seedling. The selected space of the fruit trees was the haw species.

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PROJECT BUDGET

TOOL	Quantity	unit cost	Total cost
Scalpel	5	10	50
Watering can	1	400	400
Grafting tape	20	20	400
Root stock	20	100	2000
Scion	20	10	200
Sterilizer	10ml	150	150
Shade net	5x10m	3000	3000
Rake.	1	350	1500
Trainer.	1	150.	1500

PROJECT IMPLEMENTATION, PLAN AND TIMELINE

Project	January	February	March	April	May	June	July
Instruction.							
Problem identification							
Individual Presentation							
Group Presentation							
Arrival of trees							
Preparation of land							
Training Scion							
Watering and inspection							
Grafting of trees.							
Fortnight report.							
Report writing							

PROJECT IMPLEMENTATION AND PROCEDURE.

Training session - Our Agriculture teacher invited a ~~trainer~~ who taught us to graft the trees.

Assembling tools - All the tools were bought from a ~~reliable~~ source to prevent transmission of disease to the root stock and the scion.

Selecting the location for the nursery bed - we discovered a well ~~secured~~ place on the school farm which was selected and well established shade was erected using a net.

Performing grafting ~~We~~ did the actual grafting of the aracada seedling guided by the trainer and the help of our teacher.

Monitoring growth progress post-operation - Monitoring was done everyday by my group members making sure that the scion sprouts and hydrated and always in shade to prevent dehydration 90% of our seedling survived.

Caring for plant ~~Watering~~ was done everyday and removal of any growing weeds. Each member was given a responsibility once every week of watering and weeding.

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When the trees arrived, each group was allocated their number of trees. We placed them in the place of land that we had and watered them regularly to keep them strong and for continued maturity. Our teacher of agriculture invited the trainer who help us to graft. And later we did

ourselves. later we were issued all the tools we required. And we finished the procedure we returned them to the nursery bed.

EVALUATION.

Each group was issued their piece of land of 1M by 11M which was located in a secure place in a school farm.

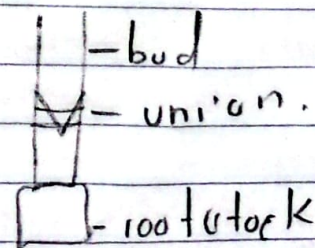
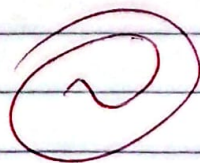
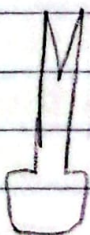
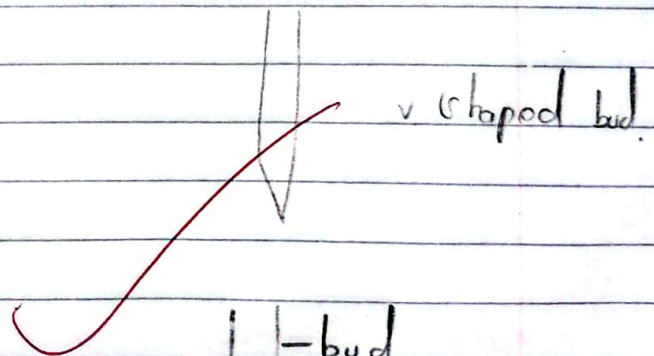
Grafting procedure.

- i We cut the upper part of the rootstock and made an incision at the top to one inch down the rootstock.
- ii After cutting the bud in a V-shaped manner
- iii The bud is fitted between the incision of the rootstock and sliding the bud downwards until it lies between the edge of the bark.
- iv They are then tied firmly using a grafting tape.

illustration.



rootstock



REFLECTION.

After each group was done with grafting and trees were returned back to their respective nursery bed, we continued to care for the fruit trees and 98% of the fruit trees survived.

Conclusion.

Through the project we were able to solve the problem of shortage of fruits in the market. This will mostly benefit us as a school.

Recommendation.

- We recommend this project to farmers whose plants have delayed in maturity.
- We also recommend this project to other schools which are lacking fruits in their diet.

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