

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
LAUREEN CHINYAVU WILSON	11241001246	

FOR OFFICIAL USE ONLY

Enter the score awarded in the box below.

Agriculture Teacher

17



© 2025 The Kenya National Examinations Council

925074

PROJECT REPORT

GRAFTING OF

AVOCADO FRUIT

TREE

[Persea Americana]

LAUREEN WILSON

11241001246

GROUP 5

Introduction

Grafting- It is the practice of uniting two separate woody stems. The part bearing the root is referred to as rootstock which occupied the lower part while ^{the} part which is grafted onto the root stock is known as scion which is the upper part. The scion has buds which develop into the future plant. Compatibility is that the rootstock and the scion form a successful union.

Significance of Grafting.

Grafting help to repair damage trees

They help to shorten the maturing age.

It help to propagate clones that cannot be propagated in any other way.

It make it possible to grow more than one type of fruit on the same plant.

It facilitate the changing of the top of the tree from being undesirable to desirable.

Identification of Issue

The problem I identified in our school environment and in the community is that there is scarcity of fruits since we eat fruits twice a week. To solve this issue grafting of avoid should done to shorten the maturing age in order to improved the quality of fruits in our school environment.

Project Objectives.

I Learn to carry out grafting ✓

I should have known the precaution taken when taking grafting

I should be able to graft ✓

I should have known the tools and materials used for grafting eg scapel and watering can.

Project description

I used whip or tongue grafting method where by the scion and the root stock are of the same diameter. Also it is carried out when the diameter of the root stock and the scion are 'Pencil' thick. The materials required for grafting, I used a scapel, root stock, scion, grafting tape and a watering can. I select a hass specie of avocado fruit tree.

Group 5 members

Sandra Maina
Clair koome
Lucy Gathoni
Joy Mumbi
Laureen Wilson

Budget

Agriculture Project budget - 2025

Item	Quantity	Unit Cost	Total cost
Scapel	5	10	50
Watering can	1	480	480
Grafting tape	20	20	400
Root stock	20	100	2000
Scion	20	10	200
Steriliser	10ml	150	150
Shade net	5m x 10m	3000	3000
Rake	1	350	500
Trainer	1	1500	1500
TOTAL		5540/-	8280

03

Project Implementation Plan and Timeline

Activity	J	F	M	A	M	J	J
Instruction of the Project given							
Identification of the issue							
Individual presentation of Project							
Preparation of a budget plan							
Group presentation of the project							
Site selection							
Arrival of Avocado fruit tree seedling							
Preparation of tree nursery plot							
Training session with external officer							
Fortnight report on the project							
Evaluation of the Project							
Watering and inspection							
Report writing							

Project Implementation and Procedure

Trainer session - It was done by an external trainer.

Assembling tools - Materials bought were reliable sources to prevent spread of disease in the root stock and the scion. The tools required were: scapel, grafting tape and watering can which could be used for watering the avocado fruit trees.

Selecting location for planting - I and my group members we select a well secured place, shaded, well established and using a shade net. We also site it nearness to the water tank source for easy watering and on gentle slope to prevent flooding.

Performing grafts - We did the Practical of grafting avocado seedlings guided by an external trainer and the help of our teachers as one of the student was taking a video. The session was successful and everyone who had a Challenge to graft at end we were able to graft on our own.

Monitoring growth progress - Post operation - Monitoring was done everyday by group members making sure that the scion and the rootstock itself it is in a shade to prevent dehydration from the sun.

2h Care and management for plants - Watering of the seedlings was done everyday in the first week and uprooting or removal of weeds. Each member of the group was given a duty of once a week in the morning and late in the evening to water the seedling and remove weeds.

Reflection

3h After evaluation, grafting was very successful hence in the 1st phase it was unsuccessful. I tried on the 2nd day it became successful and on the 3rd day I carried out the

remaining fruit trees on my own and it came more successful. since only six out of ten survived after carrying out grafting.

Conclusion

In conclusion, I have achieved, how to graft fruit trees of hass species of avocado. The potential impact is that learners will be able to learn how to use a grafting tape. Also I have learnt, that grafting in order to produce desirable products supply in our school environment and community it be embraced country wide.

Recommendation

The government should provide the establishment of more avocado fruit trees in nurseries with certified grafted seedlings to have faster maturing age. The government also should provide trainers to train farmers and students on grafting techniques through Agricultural extension services.

