

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
NJOROGE SHANNON NYOKABI	11241001080	

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Enter the score awarded in the box below.

Agriculture Teacher

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11241001080

PROJECT REPORT

Shannon

Nioroge

Grafting of
Fruit Trees

perna
americana

INTRODUCTION

Grafting is the practice of uniting two woody stems i.e scion and rootstock; the rootstock being the lower part and scion the upper part. In fruit maturity grafting helps to grow more than one type of fruit on the same tree, reduce the tree maturing age and increase disease resistance in fruit trees.

PROBLEM IDENTIFICATION

In the school community, inadequate supply of fruits - very essential in the diet - was a major problem affecting it. Budding and grafting became a relevant project to solve the problem in that, grafting of trees reduces the maturity age taken by trees -

PROJECT OBJECTIVES

Grafting and budding as a project objectified the following:

- i) Teach the students on the technical skill, budding and grafting
- ii) Teach on precautions taken when grafting
- iii) To help solve the problems affecting the school community.
- iv) To enhance teamwork and responsibility.

PROJECT DESCRIPTION

To carry out the project, the avocado fruit tree *Persea americana* species was selected for its high desirable characteristics. We found the school farm suitable to the project where every group was allocated land of the same. Each group received 20 fruit trees following the given instruction. Under the shade net we had the trees in the group plots where we watered the trees and high quality care maintained on them. In groups we discussed on suitable grafting technique where we opted to take the whip grafting technique. Appropriate precaution and handling of trees was on its highest. The whip grafting was easy as one needed to make a whip cut on the scion and to the root stock one made vertical cut and fit the scion on to the rootstock. To enhance compatibility we used grafting tape on the same. In our group, group 1 was helped a member to carry out on a sample as she had some difficulties to do the same.

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PROJECT BUDGET

The budget plan for the project work is outlined below:

Particulars	Quantity	Unit cost	Total cost
Scalpel	5	10	56
Water can	1	400	400
Grafting tape	20	100	2000
Rootstock	20	1000	2000
Scion	20	10	200
Stemliner	10m	150	150
Shade net	5m x 10m	3000	3000
Rake	1	350	350
Trainer	1	1500	1500
		TOTAL	9650 per group

PROJECT IMPLEMENTATION AND TIMELINE

Activity	J	F	M	A	M	J	J
PROJECT LAUNCH & INSTRUCTIONS							
IDENTIFICATION OF PROBLEMS							
INDIVIDUAL PRESENTATION OF PROBLEM							
PREPARATION OF BUDGET PLAN							
ARRIVAL OF AVOCADO FRUIT TREES							
PREPARATION OF NURSERY PLOTS							
SELECTION OF SITE							
GROUP PRESENTATION							
FORTNIGHT GROUP REPORT							
TRAINING GRAFTING SESSIONS							
WATERING & INSPECTION							
GRAFTING OF FRUIT TREES							
EVALUATION OF THE PROJECT							
REPORT WRITING (INDIVIDUAL & GROUP)							

PROJECT IMPLEMENTATION

February 12, 2025 the expansion of 2025 agriculture project was done to us by our agriculture teacher and to that, we had to identify problems which affected the school community to which the most pressing problem ~~could~~ be solved by either of the projects where grafting and budding of fruit trees became the most pressing problem.

March 2025, In groups we came with a budget plan for the project, we also identified a suitable site to carry out the project ~~in~~ the school farm where every group was allocated 1m x 1m plot. We were also issued with 20 grafting trees per group derived from a reliable source.

May 2025 an external grafting expert, ~~cousin~~ of our teacher was invited to train us on how to graft the trees where we first assembled the tools required and followed his given procedure on whip grafting to the bitter. In our groups we grafted the 20 trees allocated to us which after that ~~we~~ returned to our shaded plots and monitored the growing process on a daily basis, routine management practices being carried out and a fortnight report issued.

PROJECT EVALUATION

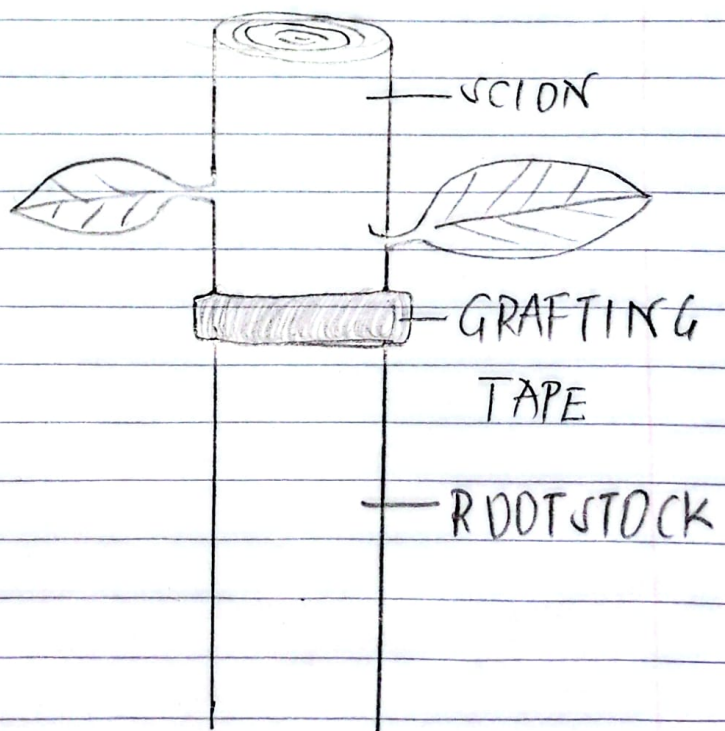
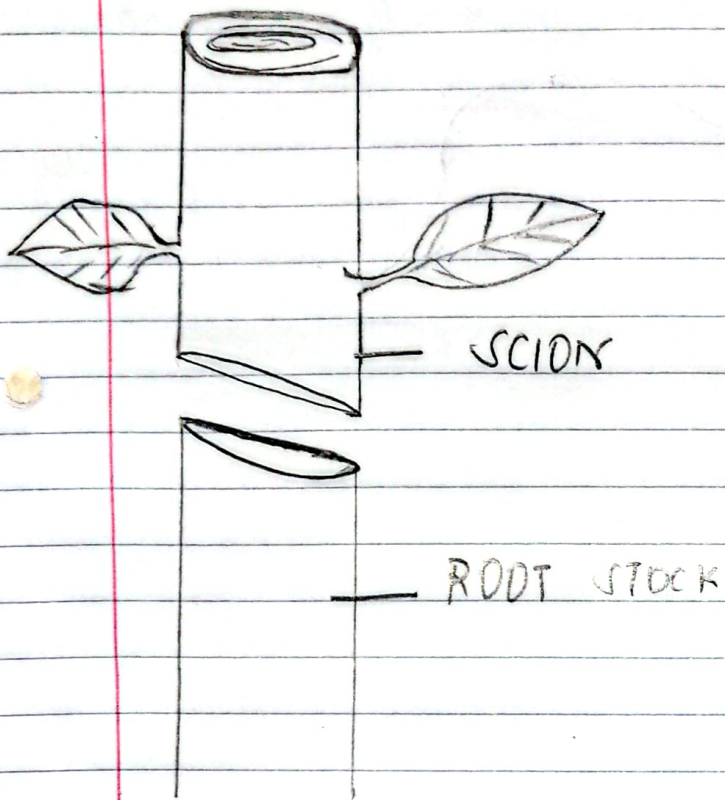
After the graft came to the trees, it was observed a very successful project where in our group; group 1 fourteen trees were able to sprout and the six were withered where immediately replaced them and there was 100% transition. We, from the same experience learnt on precautions to ~~take~~ when grafting trees and more so greater exposition to the grafting technique.

The project 2025 created awareness to the school community that grafting of fruit trees can be a suitable method to solve various identified problems in the school community.

CONCLUSION

Grafting of fruit trees is a most appropriate project to solve many problems around and more so improve the quality of fruit trees.

WHIP GRAFTING



RECOMMENDATIONS

In relation to our project areas, I recommend that such practical project be recurrent to break the theory monotony and also impact the practical knowledge on students to which it is of great advantage to them including financial advantage.