

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
Koome Clair Wanjira	11241001235	

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Enter the score awarded in the box below.

Agriculture Teacher

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PROJECT REPORT GRAFTING

OF
AVOCADO FRUIT

TREES (Persea americana)

NAME: KOOME CLAIR WANJA

INDEX: 11241001235

GROUP
NUMBER : 5

INTRODUCTION

Grafting is the technique of uniting two separate woody stems of different plant. It can also be described as the joining of two parts of a plant; the scion and the rootstock that are compatible and providing good conditions that enhance the joining of the cambium of the plant parts to ensure a successful graft. For further grafting success one should ensure that the trees are of the same species. Through grafting one is able to shorten the maturity period of trees, change the type of trees from desirable to undesirable.

IDENTIFICATION OF THE ISSUE

From research in my community I was able to find out that farmers complained a lot on the time it took to grow Avocado fruit trees (*Persea Americana*) let alone the time it took for it to begin bearing fruits. We came to find out that grafted Avocado fruit trees had a shorter growth and maturity period. This not only benefited the farmer but also the community at large. The farmers were able to benefit from high market prices thus making huge profits and also the schools around the community gets fruits all year round at affordable prices. This enables the learners to have a fruit daily which in turn boosts their health.

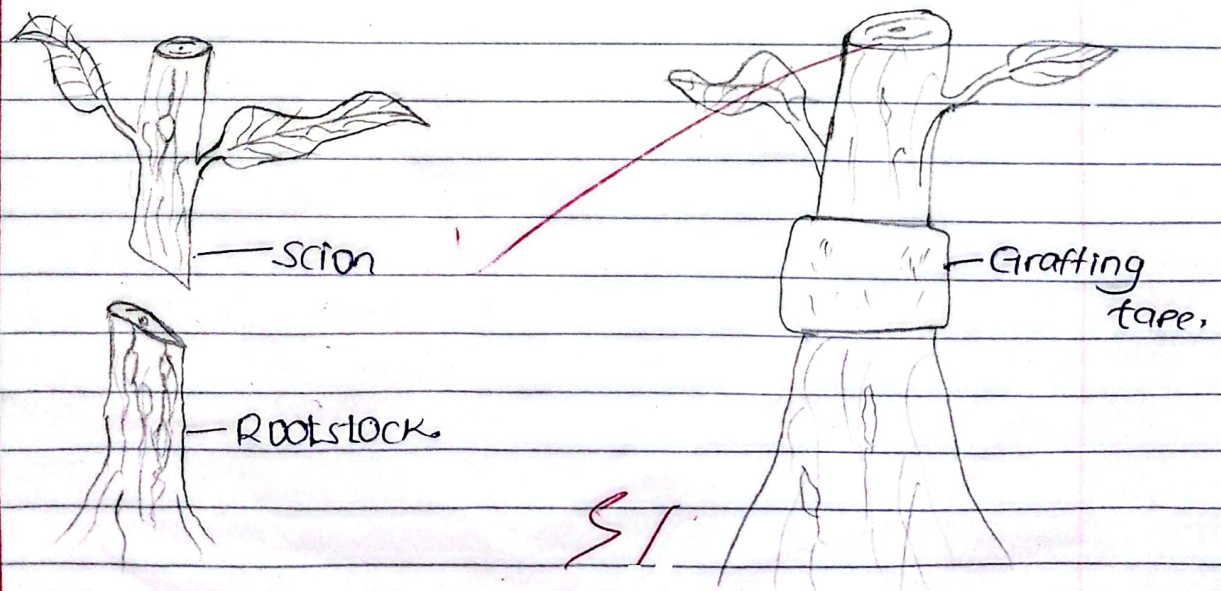
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PROJECT OBJECTIVES

1. To learn how to carry out grafting effectively.
2. To learn how to take care of trees through routine management practices such as shading, watering and weeding.
3. To learn and practise various grafting methods.
4. To learn how to use various tools such as secateurs.

PROJECT DESCRIPTION

Our group consisting of Lucy Gathoni Kariuki, Sandra Wanjiku maina, Joy mumbi Njeri, Laureen Chinyani Wilson and I; Koome Chair Wanjia were allocated with various tasks to carry out. First we were to carry out Primary cultivation practices such as clearing the land. Next, we dug out plots measuring $1m \times 1m$. Since we had already erected a suitable shade, we were given our 20 seedlings that we were to take care of by watering. On the grafting date, on 17th May we had a trainer who guided us. We decided to carry out whip also known as Tongue or splice grafting. It needed both the scion and the rootstock to have a pencil thick diameter. For the tools we used rakes, hoes and pangas to carry out primary cultivation. For grafting, we used a grafting knife, grafting tape and secateurs.



PROJECT BUDGET

The budget plan prepared was as follows:

Material	Quantity	Unit cost	Total cost.
Scapel	5 (Per group)	10	50
Watering can	1 (Per group)	400	400
Grafting tape	20	20	400
Rootstock	20	100	2,000
Scion	20	10	200
Sterilizer	10 ml	150	150
Shade net	5m x 10m	3000	3000
Rake	1	350	350
Trainer	1	1500	1500
Total cost		8050#.	

PROJECT IMPLEMENTATION PLAN AND TIMELINE

ACTIVITY	S	F	M	A	M	J	J
Instructions of the Project insurance.							
Identification of the issue.							
Individual presentation of the project.							
Preparation of a budget plan							
Group presentation of the project.							
Site selection.							
Arrival of Awcabo fruit tree seedlings.							
preparation of nursery plots.							
training session with trainer							
Fortnight project report.							

ACTIVITY	J	F	M	A	M	J	J
Evaluation of the project.							
Watering and Inspection.							
Report writing							

PROJECT IMPLEMENTATION PROCEDURE

Training session - This was done by a grafting expert sourced by the school from an agricultural research center.

Assembling tools - The necessary equipment that were needed for grafting were sourced from reliable sources to prevent disease transmission.

Selecting a planting location - It was to be a shaded area with raised plot about 1m x 1m for each group. It was to be near a source of water. A shade was erected to avoid dehydration of seedlings.

Performing grafts - We did our grafting in groups with each member grafting three trees with advice from the trainer and a short video of our activity.

Monitoring growth progress (post operation) - We conducted daily management practices e.g. watering of our trees or weeding of our plots.

Caring for plants - The survival rate was 95%, as we continued watering and weeding and providing good growth conditions.

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Reflection / evaluation.

Based on the success of the grafts, our first attempt was quite discouraging as none of the seedlings survived. Our second trial was a bit better compared to the first as we had a fifty percent survival rate as only two seedlings died. Our most successful grafts were on the third trial as we had 100% survival of the grafts.

Conclusion

The grafting project has enabled us to have fruits all year round as a school and as a community at large at affordable prices.

The fruits are also of high quality and can fetch good market prices.

✓
✓
✓

Recommendation

This project has improved food production in my local area thus ensuring availability of fruits all year round at affordable prices thus allowing me to get the much needed vitamins from my diet both at home and at school.

I would request non-governmental organisations to chip in the funding and implementation of the project.

Transplanting of the seedling should be done for success of the project.