

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

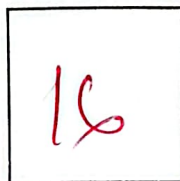
This is to certify that this is a true project report of my Agriculture Project and that it contains the details of the operations.

Name of the Candidate	Index No.	Signature
Muthama Natasha Klarjiru	11241001001	

FOR OFFICIAL USE ONLY

Enter the score awarded in the box below.

Agriculture Teacher



==

Natasha Manjiru

Muthanna

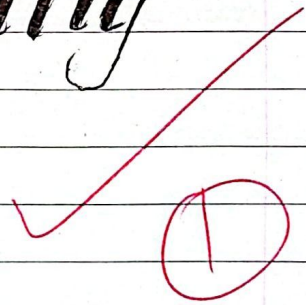
index no: ~~11241001001~~

Group

1

Crafting

of



Avocado

Fruit

Trees

Introduction

Grafting is the practise of uniting two separate woody stems. In avocado cultivation, grafting is commonly used to produce trees with desirable ~~fruits~~; the trees are draught and disease resistant, faster fruiting and have a consistent fruit quality and development.

During grafting, the part with the ~~root~~-stock is the lower part and the scion is the part grafted on the root-stock. The ability of scion and root stock to form a successful union is termed as compatibility.

The Botanical Name for Avocado is *Persea Americana*

Identification of Issues.

Some of the problems identified around the school and our community at large include ~~scarcity~~ of fruits, wind erosion, soil erosion etc. Grafting of avocado fruit trees will solve the problem by decreasing the maturity rate of the avocado fruit trees, decreasing soil and wind erosion and providing quality fruits (avocado fruits).

Farmers will also not go at a loss as the Avocado trees will not be scarce and the demand will increase at a high rate.

Project objectives

Some of the main aims of this project include

- i) To shorten the maturity period of the avocado trees
- ii) To Increase the quality of the fruit produced.
- iii) To Increase the quantity of the fruit produced and diminish the fruit shortage in the school and the community at large.
- iv) To Increase the probability of growing more than one type of trees on the same root stock.

Project Description

The method used for grafting was whip grafting where the rootstock and scion are of the same diameter.

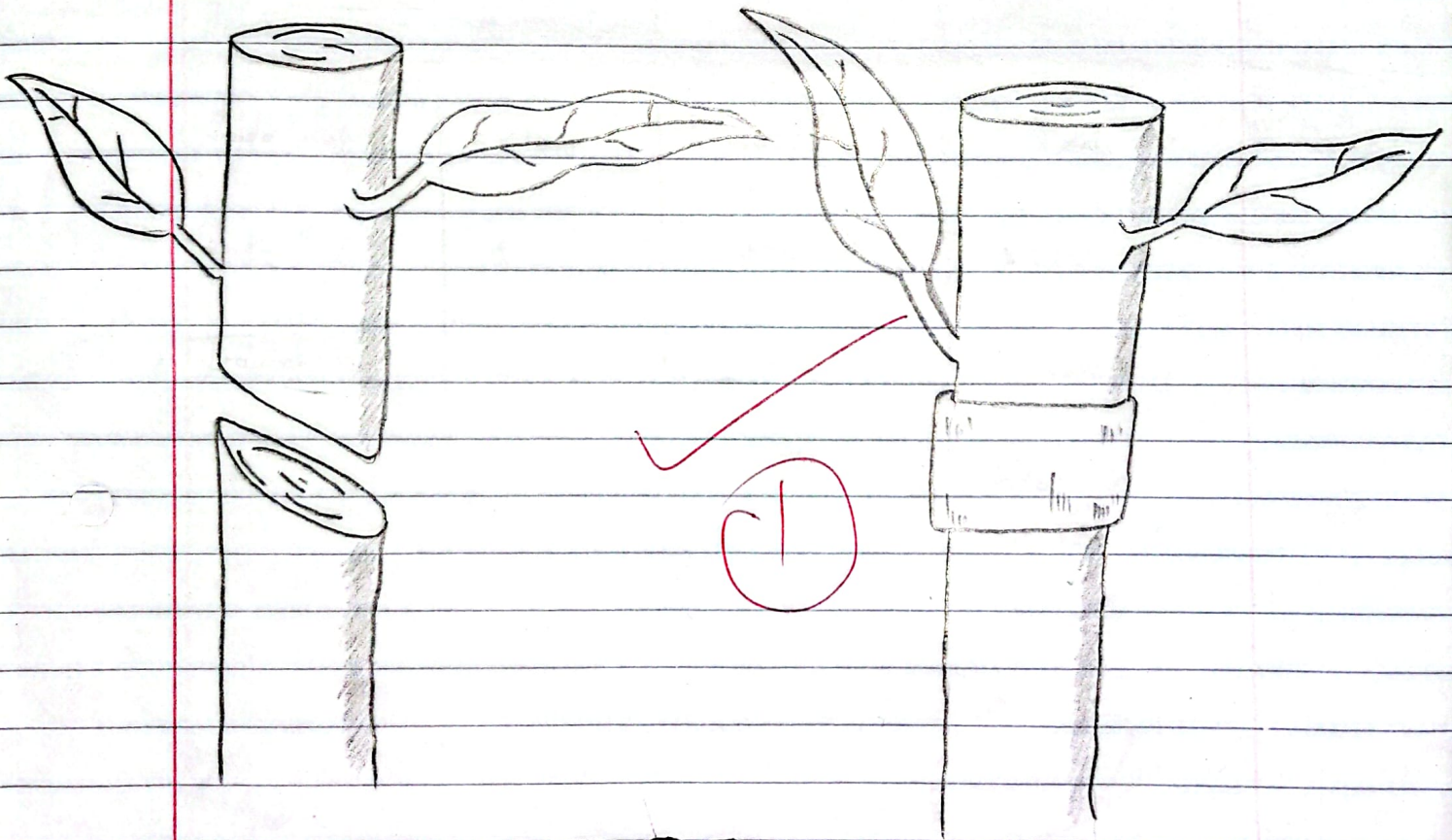
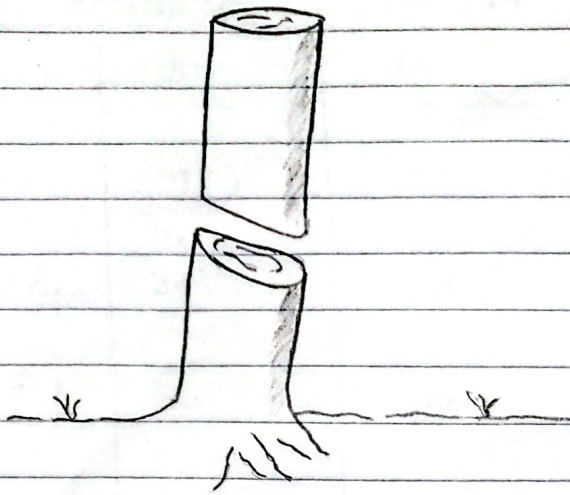
Materials Required for grafting

1. Scalpel
2. Rootstock.
3. Scion.
4. Klating can.
5. Grafting tape.

Whip grafting is also referred to as tongue grafting which is normally carried out when the diameters of the root stock and the scion are 'pencil' thick.

The Members of our group included

1. Muthama Nduha Kijane.
- 2.
- 3.
- 4.
- 5.



*Whip
Grafting*

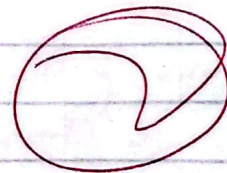
Item	Quantity	Unit Cost	Total Cost
Scapel	5	10	50
Klata con.	1	400	400
Grafting tape	20	100	2000
Root - stock.	20	100	2000
Scion	20	10	200
Sterilizer	1	150	150
Shade net	5 x 10m	3000	3000
Rate.	1	350	350
Trainer	1	1500	1500

Total
= 9650 / =

2

PROJECT IMPLEMENTATION PLAN AND TIMELINE

ACTIVITY	J	F	M	A	M	J	J
INSTRUCTIONS OF THE PROJECT ISSUANCE							
IDENTIFICATION OF THE ISSUE							
INDIVIDUAL PRESENTATION OF THE PROJECT							
PREPARATION OF A BUDGET PLAN							
GROUP PRESENTATION							
SITE SELECTION.							
ARRIVAL OF THE AVOCADO FRUIT OF TREE SEEDLINGS							
PREPARATION OF THE NURSERY PLOTS							
TRAINING SESSION WITH A GRAFTING EXPERT.							
EVALUATION OF THE PROJECT.							
WATERING AND INSPECTION							
REPORT WRITING							



Project Implementations and procedure.

- i) Training sessions → ~~Through~~ our Agriculture Teacher, we got help from an external officer who was hired to teach us on the grafting process.
- ii) Assembling of tools → ~~The~~ materials used during the grafting process were sourced from a reliable source in order to prevent transmission of diseases.
- iii) Selecting the location → ~~A~~ well secure and shaded part around the school compound was well established and a shade erected to protect the seedlings.
- iv) Performing grafts → ~~Through~~ the Trainer, we performed grafting on the Avocado seedlings and also our teachers took part in the process by taking videos of the process we undertook.
- v) Monitoring growth → ~~This~~ was done everyday by all the group members making sure that the scion would sprout and always with water in order to prevent them from drying up.
- vi) Caring for the plants → ~~Removal~~ of weeds, watering everyday, was done. Each member was given a responsibility of watering and weeding twice or thrice every week.

3/1

Reflection.

The chances of survival for the grafted Avocado trees was very high. This is because the grafted trees have high disease resistance rate. According to the analysis I took, more than 85% of the trees were transplanted.

Each group having more than half of the trees surviving. In my group in particular all but two of the trees did not survive. Which shows that a huge number of trees were able to be planted.

Recommendation

It was recommended that the grafted tree to be put in favorable conditions and watered frequently. Kneeds should also be uprooted regularly in order to avoid disease to the avocado trees. Farmers should therefore consider grafting as a practice in their farms.

Conclusion.

I learnt many things from this process of grafting moroso Tongue / whip grafting. It was actually an easy exercise and this will truly help all of us in the future and also plan on teaching others. Grafting is an essential practise and should be encouraged in order for farmers to use on their plants.

3