



Planting of Pineapple



LEARNING / FACILITATING MATERIALS

PINEAPPLE PRODUCTION
NATIONAL CERTIFICATE I



financed by





Introduction

Welcome to the start of your career in land and soil preparation in pineapple production

A career in land and soil preparation for pineapple production has never been as popular as it is now; competition is strong and the standards are getting high. So you must aim higher, particularly if you see pineapple industry as opportunity to build up your lifelong career.

Many career options are also available within the land and soil preparation for pineapple production. This unit will also look at the, methods of land preparation, farm land demarcation and understanding of soil preparation for planting

While training, you should make an effort on improving your personal habits, skills and knowledge to get along well with the working industry. All these aspects are essential to achieving success in the world of work.

Congratulations for making the decision to study land and soil preparation for pineapple production. You have taken the first step towards a very interesting and satisfying career.

This learning material covers all the Learning Outcomes for land and soil preparation requirements for the Certificate I programme.

Table of Contents

CONTENT	PAGE NO
LO1 Demonstrate knowledge of the selection of appropriate planting materials for pineapple cultivation	3
a) Explain the factors to consider when selecting planting material for pineapple cultivation.	3
b) Explain the procedure used in planting tissue culture material.	3
c) Identify and select good planting materials.	4
<hr/>	
LO 2 Prepare planting materials for planting	6
a) State reasons for preparing planting materials.	6
b) Remove the basal leaves of planting materials.	7
c) Demonstrate dipping and drying of planting materials.	8
d) Demonstrate sorting and grading of planting materials.	9
<hr/>	
LO 3 Demonstrate understanding of planting procedure	11
a) Mark out planting distance.	11
b) Dig planting holes.	13
c) Plant and firm.	13

Demonstrate knowledge in the selection of appropriate planting material for pineapple cultivation

On completion of this LO, you will be able to:

- a) Explain the factors to consider when selecting planting material for pineapple cultivation.
 - b) Explain the procedure used in planting tissue culture material.
 - c) Identify and select good planting materials.
-

PC (a) Factors to consider when selecting planting material for pineapple cultivation.

The following factors are to be considered when selecting planting materials for pineapple cultivation:

- The leaves should be green in colour.
- Avoid reddish leaves, for these plants may be infected with “scarlet tip”
- Free from rots and gums.
- Free from mealy bugs infestation.
- Carefully examine, both the inside and outside of leaf bases, for the presence of mealy bugs.
- Avoid earthen shelters around the plant bases; do not select material from such plants. These plants are infested with mealybugs that carry the virus germ responsible for “scarlet tip”.
- Select planting material from erect plants showing firm leaves. Plants that are too short (dwarfed), and those showing wrinkled or withered leaves should be ignored.

PC (b) Procedure used in planting tissue culture material

Tissue culture (TC) plantlets

Tissue culture material can be used in commercial production. Before choosing to use TC plantlets for crop establishment, the producer should determine the cost effectiveness of using tissue culture material as well as skill and knowledge over the more commonly available planting materials.

Procedure to acquire skills of planting tissue culture material:

- Prepare nursery bed for planting plantlets
- Make shade over the bed and water
- Water and remove plantlet from the nursery tray
- Make planting holes at 10 cm intervals on the bed and plant the plantlet in it
- Water after planting and continue watering if there is a need
- Apply soil amendment if there is the need at the second week of planting
- Remove your suckers at 6-8 weeks depending on the growth and climatic condition. Trim the root with a sharp knife and plant on to the field with recommended spacing

PC(c) Identify and select good planting material

The picture below shows good planting materials which are diseases and pests free, uniformly green, firm, erect and have no earthen shelter.



Picture 1: Good pineapple planting materials

The picture below shows bad planting materials with root and leaves diseases and pests infestation, not uniformly green, twisted curly leaves and brownish leaves.



Picture 2: Bad pineapple planting material.



Self-assessment

- 1 State three (3) qualities of healthy pineapple planting material.
.....
.....
- 2 State (2) advantages of nursing tissue culture materials for planting.
.....
.....
- 3 State three (3) characteristics of bad pineapple planting material.
.....
.....
.....

Prepare planting materials for planting

On completion of this LO, you will be able to:

- State reasons for preparing planting materials.
 - Remove the basal leaves of planting materials.
 - Demonstrate dipping and drying of planting materials.
 - Demonstrate sorting and grading of planting materials.
-

PC (a) Reasons for preparing planting materials:

Prior to planting pineapple, the planting materials need to be prepared usually in a form to get good results such as, planting disease free materials, controlling the spread of diseases. e.g. mealybug and at the end maximise profit.



Picture 3: Planting disease -free materials



Picture 4: Disease-free pineapple farm

PC (b) Remove the basal leaves of planting materials

Pineapple planting material basal leaves is removed by holding the material very firm in your hand and using the second hand to remove the dried leaves found at the base.

The leaves are removed to about 3-5 cm depending on the size and type of the planting material, the level of infection and the quantity of dry leaves at the base. This is done to expose diseases, pest and root nodes to improve on root development.



Picture 5:
Planting materials
with basal leaves
removed



Picture 6: Planting materials with basal leaves not removed

Activity

The learner will be given pineapple planting material to remove dried leaf found at the base of pineapple planting material.

PC(c) Demonstrate dipping and drying of planting materials

Dipping is the process of submerging the base of pineapple planting material in recommended insecticide or fungicide solution. This is done after removal of the basal leaves of planting materials to control pests and diseases. Air-dry treated planting material in up-side down position. Don't store treated planting material more than seven days.



Picture 7: Dipping of pineapple suckers

Activity:

The learner will dip and dry pineapple planting material in a prepared solution.

PC (d) Demonstrate sorting and grading of planting materials.

Prior to planting, suckers should be graded according to size, large and small. After sorting and grading each group should be planted separately:

Large suckers (slips) - 15 cm (6 ins) and over

Small suckers (slips) - below 15 cm (6 ins).

For better and faster growth, large suckers are preferred.



Picture 8: Farmers sorting and grading planting materials

Activity

Learners will be given a bunch of planting materials to sort and grade



Self-assessment

1. State the procedures of dipping pineapple suckers
.....
.....
2. State the importance of grading pineapple planting materials
.....
3. State three (3) reasons for preparing pineapple planting materials before planting.
.....
.....
.....

Demonstrate understanding of planting procedure.

In this LO, you will learn to:

- Mark out planting distance.
- Dig planting holes.
- Plant and firm.

PC (a) Mark out planting distance

Marking out ensures recommended planting distance for planting to maximise yield.

There are three recognized types of mark outs, and based on terrain suitability and the land users, preference will be needed to decide upon the specific one to be adopted, we have the Block System, Contour System and the Contour Block System.

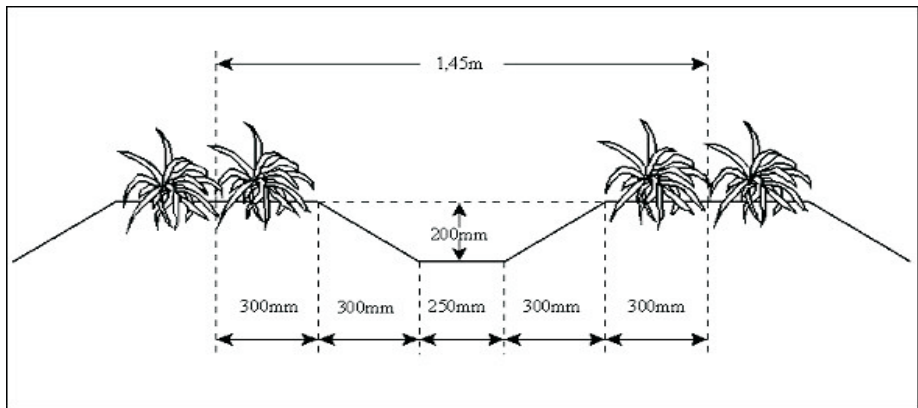


Fig.1: Marking out planting distance on flat level land

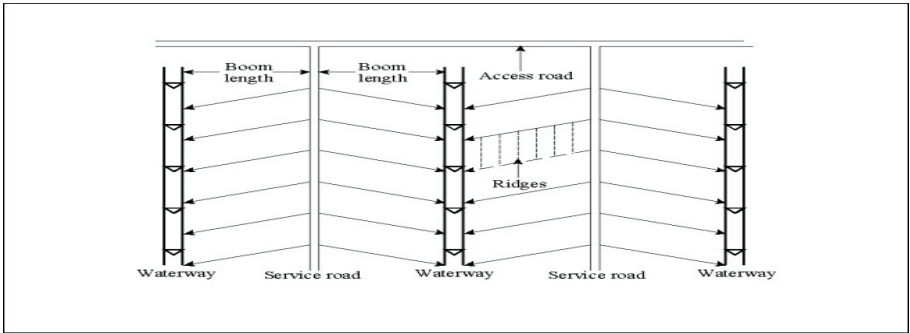


Fig 2 : The Block System of marking out

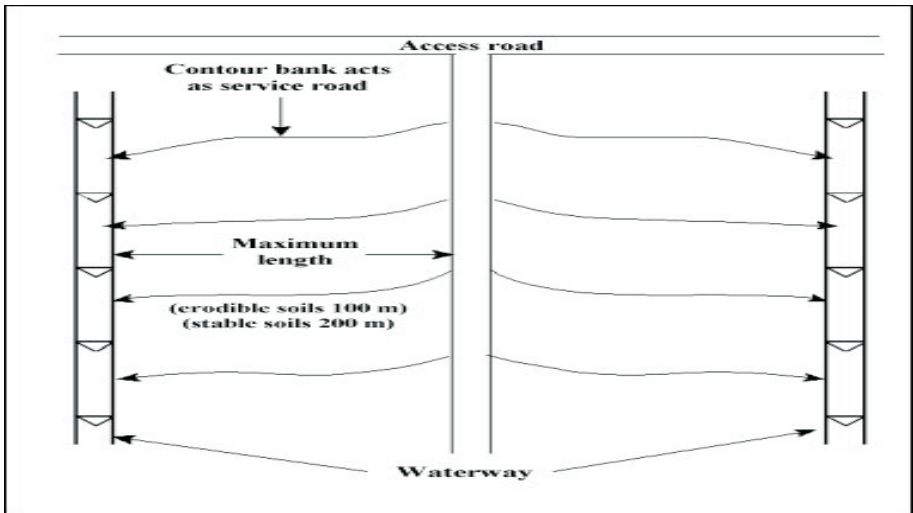


Fig 3: The Contour System of marking out

Activity

The learner will be given a plot to demonstrate all the three systems of marking out planting distance for pineapple cultivation

PC (b) Dig planting holes

The picture below shows punched holes on plastic mulch.



A. Planting holes on plastic mulch



B. Planting holes on flat land without plastic

Picture 9:

Activity

Learners will prepare ridges, mulch and dig planting holes for pineapple cultivation.

PC (c) Plant and firm

Planting brings the planting materials in contact with the soil and firming ensures removal of pore spaces and making the plant stand erect.



Picture 10: Farmer planting and firming pineapple suckers

Activity

Learner will be given a prepared field to plant and firm



Self-assessment

1. List three advantages of contour system of marking out

.....
.....
.....

2. State three (3) importance of planting and firming in pineapple cultivation

.....
.....
.....



AFRICAN UNION UNION AFRICAINE

African Union Common Repository

<http://archives.au.int>

African Union Commission

African Union Development Agency (AUDA-NEPAD)

2017

Pineapple Processing: National Certificate I: Planting of Pineapples: Unit 5

NEPAD

NEPAD

<http://archives.au.int/handle/123456789/1700>

Downloaded from African Union Common Repository