

# SWEET POTATO PRODUCTION



*"A sweet potato vine may seem modest, but it hides a wealth of sustenance."*

*Anonymous*

## Introduction

This comic book provides a fun and engaging guide to sweetpotato farming, highlighting the best field management practices.

It helps farmers improve their yields while addressing common challenges in sweet potato production.

In the next comic book, we have also developed engaging stories demonstrating innovative ways to process and market sweet potato, thus empowering farmers, entrepreneurs, and communities to maximize the crop's potential for increased income and food security.

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## 1 Sweetpotato root production

Sweet potato root production is the most common practice among sweet potato farmers. There are factors a farmer must consider when planting sweet potatoes. The first is site selection.

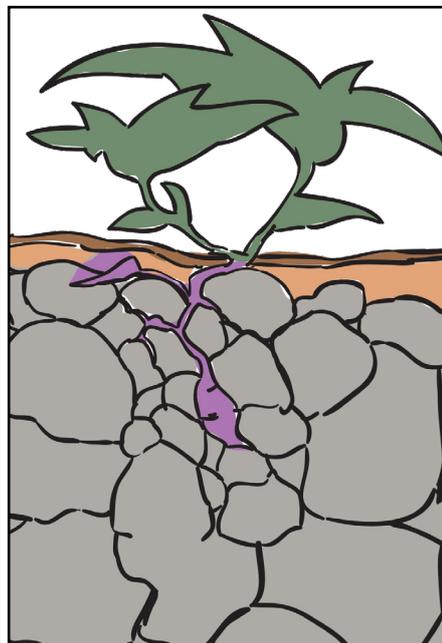


Sweetpotatoes should be planted on land where the crop has not been grown in the past two years to reduce pest and disease infestation.

It is not advisable to plant sweet potatoes where other root and tuber crops had been planted in the previous two seasons because they have similar nutrient requirements.



Type of soil is also a vital consideration.



Choose loamy well drained and deep soils when selecting the site to grow sweet potatoes



## 2 Land preparation

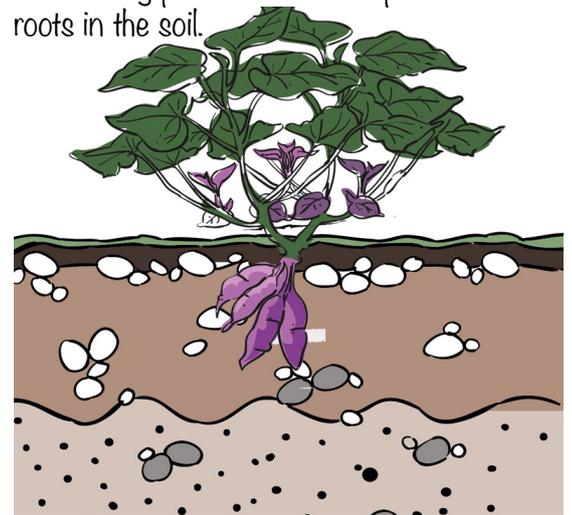
Depending on the size of the field and farmers' preferences, tools that can be used during land preparation include hand hoe, ox-drawn plough or tractor. For virgin land, primary tillage is recommended to open up the soil in preparation for cultivation.



Secondary tillage is an important step after primary tillage, refining the soil texture for planting. Using hand hoes for this process helps to break down larger clumps of soil left from primary tillage and create a finer soil structure, which is ideal for seedbed preparation.



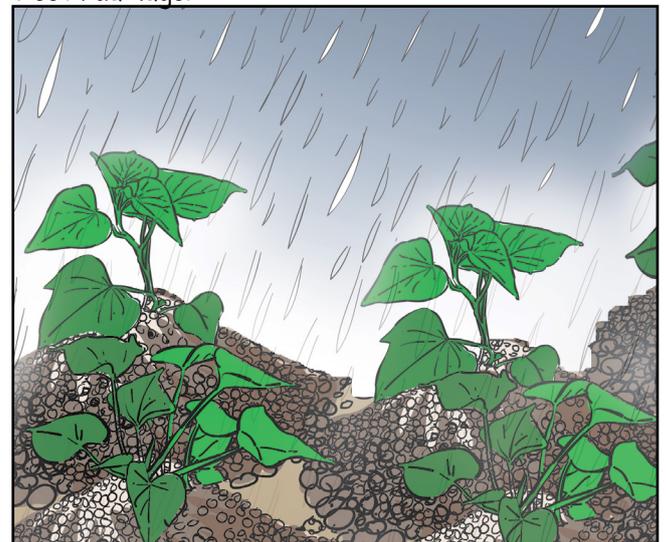
Deep ploughing is necessary because it allows easy penetration and expansion of roots in the soil.



Land is prepared early enough for planting sweet potatoes so as to allow enough time for plant residues to rot and release nutrients to the soil.



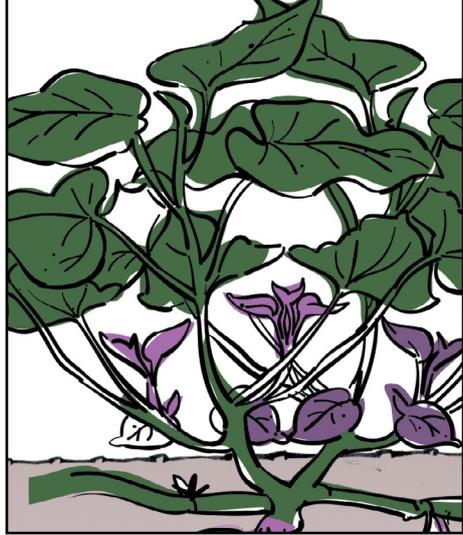
Sweet potatoes should be planted at the onset of the rainy season, avoid planting late in the growing season as this exposes the crop to drought and weevil damage.



**3a**  
**Key considerations for sweet potato farming.**  
Select your planting materials from a clean, healthy, vigorous-looking crop.



Use cuttings that are young (preferably 2-3 months old) - vines from older crop produce less vigorous crop and poor yield.



**3b**  
**Where to source quality planting materials for sweet potato farming.**  
Vine cuttings can be sourced from research institutions (KALRO Centres), commercial seed producers or trained seed multipliers.



**3c**  
**Preparation of planting cuttings**  
Selected planting material should be clean, free of insects, soil pests and symptoms of viruses or fungal diseases.



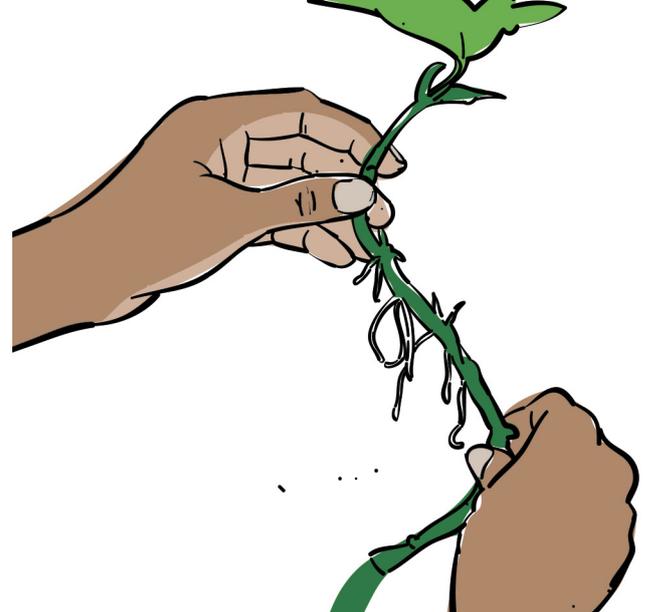
The apical (tip) portion of the vine is recommended for planting. Due to distance from the soil, the tips are more likely to carry less sweet potato weevils and pathogens.



The vines establish faster and gives higher yields.



Recommended length of vines is 25 - 30 cm length with 3 - 4 nodes.

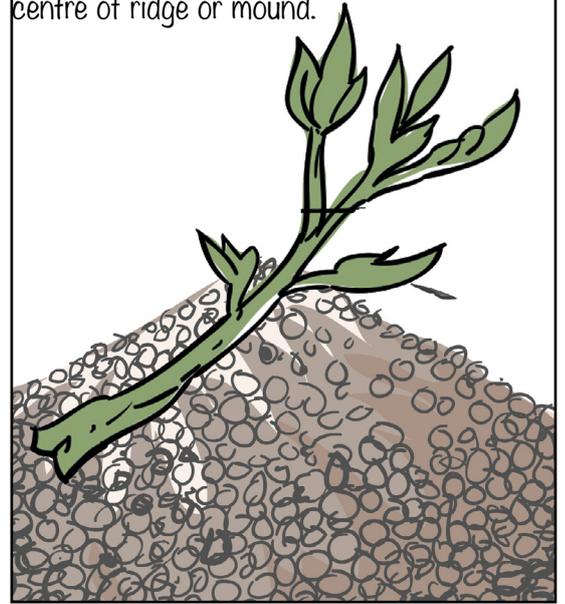


#### 4. Planting methods

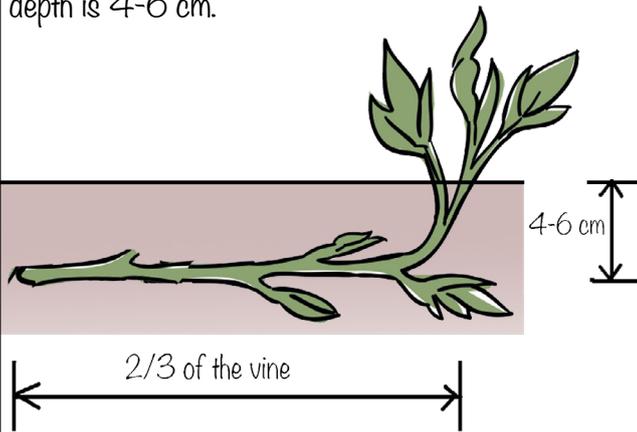
Sweet potatoes are planted on mounds or on ridges of varying sizes.



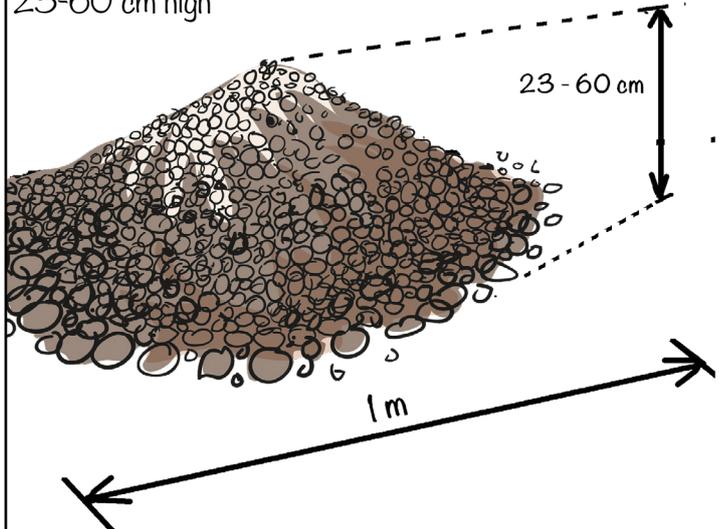
Sweet potato vines cuttings are planted at an angle with the vine ends towards the centre of ridge or mound.



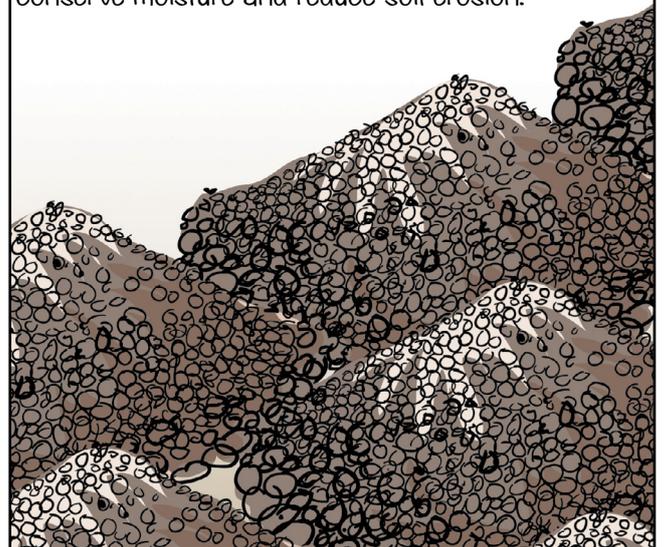
2/3 of the vine cutting is buried in the soil at a depth is 4-6 cm.



When using mounds, they should be one metre wide and 23-60 cm high



Both mounds and ridges can be used but ridges are more preferred. This is because ridges lead to higher yields, allow for mechanization and intercropping, conserve moisture and reduce soil erosion.

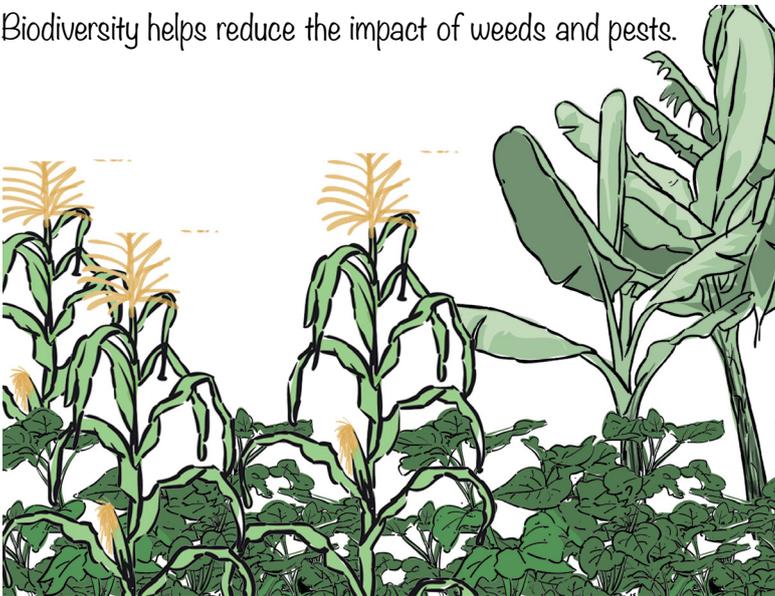


For optimum yields, ensure that the sweet potato field is well managed by applying good agronomic practices. It is favourable to plant sweet potato mixed with other crops like maize, beans, simsim, and sorghum.



Biodiversity helps reduce the impact of weeds and pests.

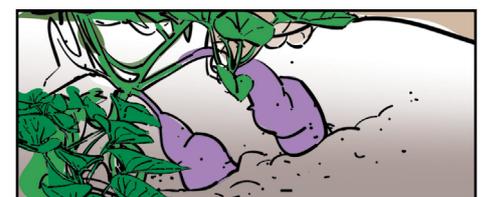
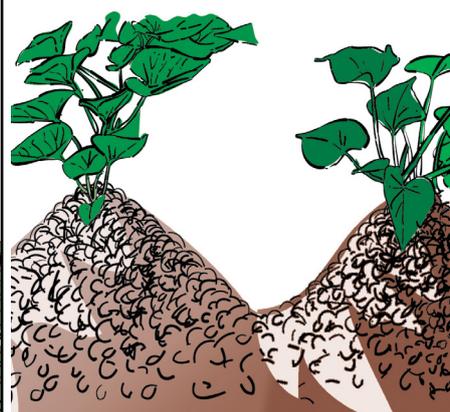
Biodiversity also promotes soil fertility due to availability of and water.



Hand weeding or use of a hand hoe is done twice when the seedbed has been well prepared.

Within the first 2 weeks after planting, fill the gaps where planted vines have died for complete field establishment. During the growing period, roots are exposed due to cracks and rainfall.

Practice hilling up which enhances soil aeration that helps roots grow deeper and more robust. This practice reduces the risk of tuber exposure, which can lead to sunburn and pest damage, particularly from insects and diseases that thrive in moist, poorly aerated soils



Sweet potato production offers endless possibilities for improving livelihoods, enhancing nutrition and creating new market opportunities.

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