



# Series 7, Episode 1

David and Hannah's Farm, Kiambu, KENYA

*This leaflet contains information on: kienyeji chickens, record keeping, soil testing, soil conservation, fertilizer for coffee trees.*

If undelivered, please return to The Mediae Company, PO Box 215-00502, Karen.

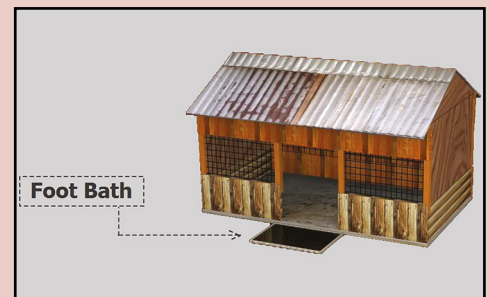
*For more information, SMS "CHICKEN" to 30606*

## Kienyeji Chickens

Kienyeji Chickens, also called Indigenous Chickens, need to have good housing, food and water to grow well and make you a profit.

Keep your chicken house clean and tidy. Sawdust on the floor will help keep it clean.

Put up walls in your chicken house to keep chicks, growers and layers apart, because each needs different food. Kienyeji chickens usually lay 36 eggs a year but if you follow the feeding plan below, you can get up to 250 or 300 eggs a year from each bird.



*A foot bath with disinfectant outside your chicken house will help stop diseases.*

## Feeding Kienyeji Layers

### Chick Mash

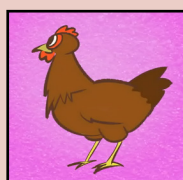


Feed from **day 1 until the end of week 8.**



Give each chick **35g (2 tablespoons)** of **Fugo Kienyeji Chick Mash** a day. One chick will consume about 2 kgs of **Chick Mash** from Day 1 to week 8.

Chick mash helps your chick to build a good body frame.



### Growers Mash

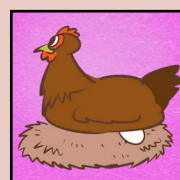


Feed from **9 weeks to point of lay.**



Give each chicken **70g (4 tablespoons)** of **Fugo Kienyeji Growers Mash each day.** One chicken will consume about 7 kg **Growers Mash** from 9 weeks until point of lay.

Growers mash helps your chicken to put on weight and to lay eggs earlier.



### Layers Mash



Feed **Fugo Kienyeji Layers Mash** when some of your chickens (2.5%) **start to lay.** This should be at around 18-20 weeks.



Give **140g (8 tablespoons)** **Fugo Kienyeji Layers Mash** per bird per day.

Layers mash helps your chicken to lay more good quality eggs.



## Record-keeping for Dairy Cows

For more information, SMS "COW" to 30606

It is good to keep records for your dairy herd. Buy the 'Coopers Farm Record Book' from agrovets, or make your own. You need to record:

- Name of cow
- Father
- Mother
- Date of calving
- Sex of calf



By keeping records, you can predict when your cow will calve down, or make sure that you have good breeding.

Keeping records on **Animal Health** is very important. Record vaccinations, spraying or deworming, any medicine given, supplements and feeds.

Records will remind you of the farm routines that you need to do, like spraying, and also help with your financial planning.

## Milk Production Records

These will help you to see problems early. Your milk records can look something like this:

Date:	1/2/17	2/2/17	3/2/17
Milk (am)	2 litres		
Milk (pm)	3 litres		
Total milk	5 litres		
Milk sold	2 litres		
Price	60 /-		

Milk records also help you to work out how much money you are making. Your profit is how much money you have made after buying feeds, vaccines, etc.

$$\text{Profit} = \text{total milk income} - \text{costs}$$

If you ever need to borrow money, you may be asked for your farm records. Record-keeping is part of having a good business.

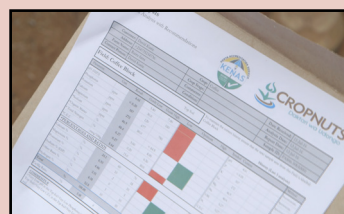
## Soil Testing

Crops take **nutrients** from the soil. If your soil is low in nutrients, your crop will not grow well.

A soil test will tell you what to add to your soil to make it better. Do a soil test every 2-3 years.

To do a soil test, call **Daktari wa Udongo** on 0790 499190.

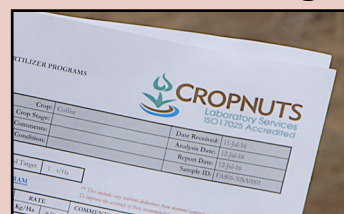
### Soil Test Results Page 1:



**Green** shows where nutrient levels are good.

**Red** shows where nutrient levels are bad. When something is red, you must do something to help the soil.

### Soil Test Results Page 2:



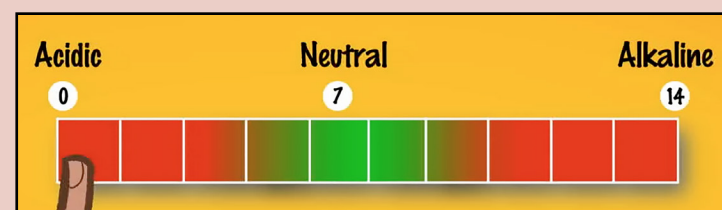
This tells you what to do to make your soil better. The report will tell you how much of each fertiliser to add. Follow the report to increase production.

## Applying Lime

Apply lime to acidic soil at the start of the growing season, just before the rain. Apply every 4 years after a soil test. Lime more often if your soil is very acidic, on a steep slope, or if you are in a high rainfall area.



Spread lime over the ground evenly. If you are growing coffee, make sure the lime is over the roots. Coffee roots go out in a circle around the base of the plant.



A low pH means your soil is acidic.

Wear protective clothing when using lime.



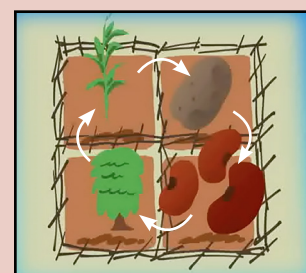
For more information, SMS "SOIL" to 30606

## Soil Conservation

For more information, SMS "SOIL" to 30606

Look after your soil for a good crop. Protect your soil by:

### 1. Crop Rotation



Rotate crops for less pests and diseases and more fertile soil.

Rotate crops from different families. After maize, plant beans. Beans add nitrogen to the soil. You will need less fertiliser.

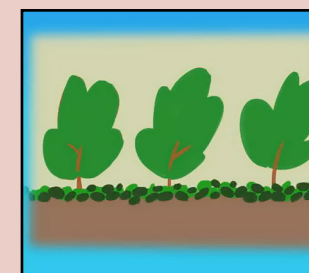
### 2. Plough only where you plant



Ploughing disturbs the soil. It breaks the soil structure & causes loss of organic matter. The soil loses water and more weeds will grow.

Instead of ploughing the whole field, dig holes only where you will plant.

### 3. Mulch

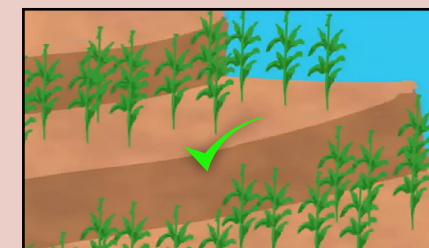


Put a layer of dried grass or leaves on the soil under your plants. This stops water loss. It also stops rain and wind taking away your soil.

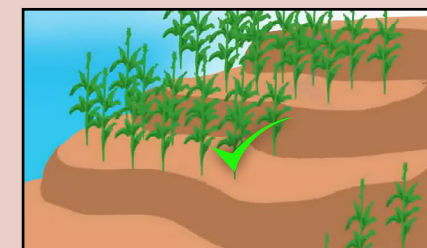
Keep your soil covered at all times, even after harvest.

## Plant on Terraces and Contours

If your shamba is on a slope, **terraces** and **contours** will help stop your soil from being swept away (**erosion**).



**Terraces:** Cut steps into the slope of a hill. There is a flat area for planting. The steps slow down any water flowing. This stops soil erosion.



**Contours:** Plant crops following the shape of the slope. This slows down water and stops soil erosion.



Do not plant crops in lines, up and down hills. This makes pathways for the water; your soil, and maybe even your crops, will be washed away.

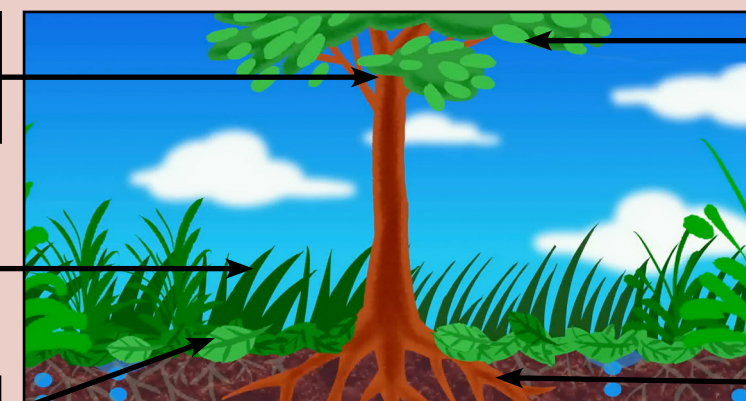
## Plant trees and grasses

Trees and strong grasses help to hold soil together.

Trees protect soil from wind and splash erosion (rain drops).

**Napier grass** is very good at holding soil together.

Leaves fall off the tree and become **mulch**. They help to keep water in the soil.



Keeping your soil covered and protected does not cost a lot of money. You will get a bigger harvest and pay less money for fertilisers and water. You will make more money.

Trees give shade to the soil and your crops. Shade reduces water loss from the soil.

Tree roots help to hold soil together and get nutrients from deep in the soil.



# Fertilizer for Coffee Trees

Different crops need different **nutrients**. Nutrients increase yields, weight, quality and resilience of the crop. Over time, crops take nutrients from the soil (**soil nutrient mining**). These nutrients need to be put back into the soil.

Use **Mavuno coffee fertilizer** to increase your yield. You will make more money, even after you pay for the fertilizer. Mavuno coffee fertilizer contains the following:



Mavuno coffee fertilizer

## Primary Nutrients

**Nitrogen (N)**, **Phosphorous (P)** and **Potassium (K)** are all needed for good growth.

## Secondary Nutrients

**Calcium (Ca)** makes strong cell walls and helps to reduce bruising and disease in coffee berries. Berries will have less damage and will last longer.

**Magnesium (Mg)** helps the tree to make its own food and grow well.

**Sulphur (S)** is needed for good growth.

## Micro Nutrients

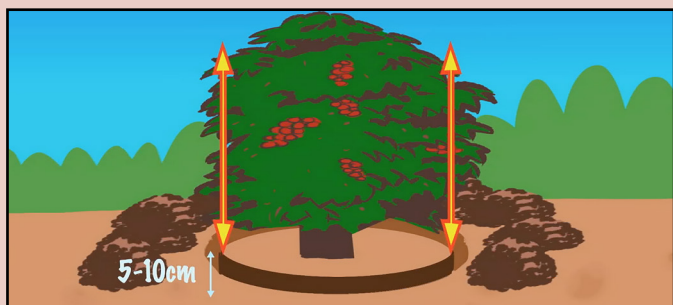
**Zinc (Zn)** helps the tree to grow.

**Copper (Cu)** helps the roots to work better.

**Boron (B)** is used to make seeds and fruit.

**Manganese (Mn)** **Molybdenum (Mo)** are needed for healthy plants.

## How to apply fertilizer to coffee trees



1. Dig a small trench 5 to 10cm deep in a circle around the tree using the edge of the canopy as a guide.

2. Mix ¼ kg (250 g) of Mavuno coffee fertilizer with soil from the trench. Put the mixture back into the trench. Apply fertilizer twice a year before the rains.

### >>> TIP <<<

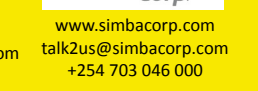
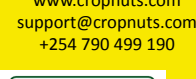
The acidity of the soil (pH) affects how well the trees take up nutrients. The best pH for coffee trees is pH 6.1.

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Watch us on Citizen TV on:  
Thursday 1.30pm (English)  
Sunday 1.30pm (Kiswahili)

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