

# Series 6, Episode 26

Theresa's Farm, Makueni, KENYA.

*This leaflet contains information on: maize seeds, pigeon peas, conservation agriculture, collective marketing*



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

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

## Maize Seeds

Seed Co. makes seeds for different conditions. You can buy seeds that grow well in dry areas, mature faster, or that are resistant to diseases. If you buy the right seeds for your area, you will get big cobs.

*Get big cobs with Duma 43. You can get 1kg of dried seeds for every 5 plants.*



### Duma 43

- Matures in only 3 months.
- Good for dry and hot areas.
- Resistant to Maize Streak Virus (MSV)
- Gives 20-30 bags per acre.

Best for: Eastern Province, Central Province, Nyanza, Upper Coast and Lower Western Province.



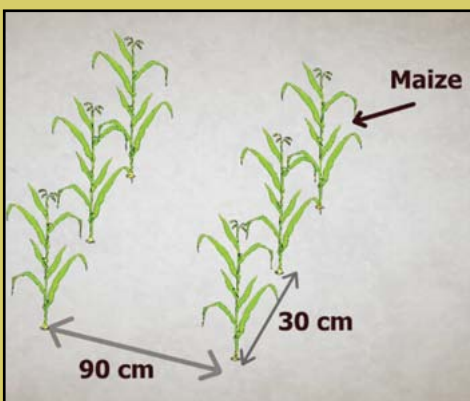
### Sungura 301

- Matures in only 2.5 months.
- Good for very dry areas.
- Gives 28-30 bags per acre.
- Resistant to Grey Leaf Spot (GLS), Maize Streak Virus (MSV) and Northern Leaf Blight.

Best for Makueni, Tharaka and Lower Nyanza.



## Planting maize



*If your area is dry, plant maize seeds 30 cm apart in rows 90 cm apart.*

You will need 8kg of seed for 1 acre. For good yields, plant new seeds. Always buy certified seeds from a registered agrovet. Seeds from other places might not grow.

Prepare your land before the rains. Plant as soon as the rains come. If you plant late, your crop and harvest will be smaller.

Plant 1 seed per hole. Plant seed 2.5-5.0 cm deep. It will be protected from rodents & birds, and easily get the surface water.

Cover seeds well with loose soil. Do not cover seeds with rocks or lumps of earth.

# Conservation Agriculture

Conservation Agriculture is a way of farming which looks after the soil. It follows these 3 principles:



- 1. Minimum tillage** means disturbing the soil as little as possible. You only prepare the soil where you will plant.
- 2. Soil Cover.** This is keeping the soil covered at all times, even when there is no crop.
- 3. Crop rotation.** After harvest, plant a crop from a different family.

## 1. Minimum Tillage

When you disturb the soil it loses water. You also have more weeds as weed seeds are brought to the surface.

Do not plough your field. Just dig planting holes, or plant with a jab planter. Use a direct seeder if your shamba is large.

*If you dig to the same level over many years, you will get a hard pan. A hard pan is a hard layer of soil that roots and water cannot pass through. Break a hard pan with a subsoiler.*



## 2. Soil Cover

Keep soil covered at all times. It protects the soil from sun, wind and rain. Less water and top soil will be lost.

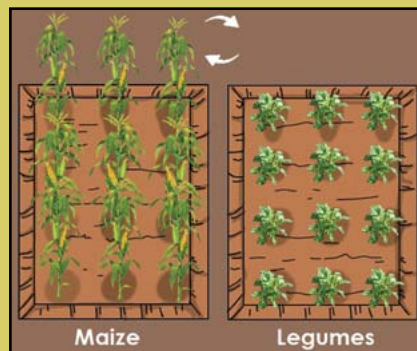
Use dried grass as mulch around the base of your crops. After harvesting, do not burn maize stovers, leave them in the field to cover the soil. Over time they will rot and add nutrients to your soil.

## 3. Crop Rotation

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

Rotate crops from different families. After a cereal (e.g. Maize), plant a legume (e.g. Beans). Legumes add Nitrogen to the soil. You will need less fertiliser.

Beans have longer roots than maize. They will bring nutrients from deep in the soil to the surface.



## Increase profits with Conservation Agriculture

Less land preparation due to minimum tillage	Lower labour costs
Less weeds due to minimum tillage and soil cover	Less pesticides, and lower labour costs
After 3 years of CA your soil will be more fertile and have more Nitrogen	Less fertilisers. Higher yields from fertile soil

### Good returns on investment

Invest 1 shilling	Return on investment
	3 shilling 50 cents

It takes time to see the benefits of CA - usually 1 to 3 years but if you do it properly, you can save time and money.

*Make more money by switching to Conservation Agriculture. You will also have more time to work on your other businesses!*

# Pigeon Peas

Pigeon Peas have many uses as a crop.

- The grain is very healthy for your family to eat.
- They are a legume, so add Nitrogen to your soil. Your soil will be more fertile for other crops.
- The leaves are high in crude protein and can be fed to your livestock.
- Dead leaves that drop off the plants can be left to cover your soil as mulch.
- The stems can be dried and used for firewood in your jiko for cooking.



## Intercropping Legumes and Cereals

Legumes (e.g. Pigeon Peas) can be intercropped with cereal crops (e.g. sorghum, millet or maize).

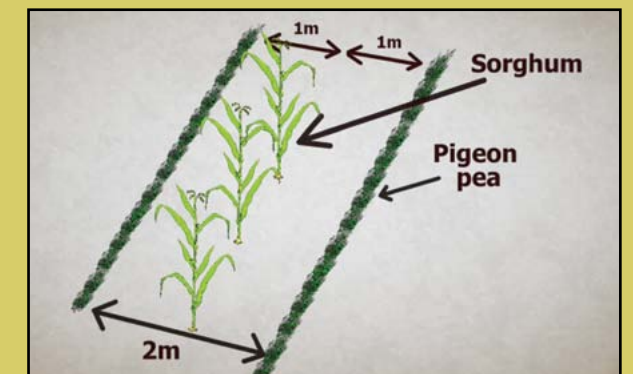
### Benefits of intercropping:

- Legumes put nitrogen into the soil. Cereals also use this nitrogen to grow well and give a bigger harvest.
- Legumes cover and protect the soil between the lines of Cereal plants.
- The Cereal plants are taller than the Legume plants so they are a source of shade.
- Legume roots are longer than Cereal roots. They go deeper into the soil and bring nutrients to the surface for cereals to use.



### How to intercrop Pigeon Peas:

- Plant Pigeon Peas in lines 2 metres apart.
- Plant a cereal crop (e.g. Sorghum) in lines in between the Pigeon Peas.



*There should be 1m between the line of Pigeon Peas and the line of Sorghum.*

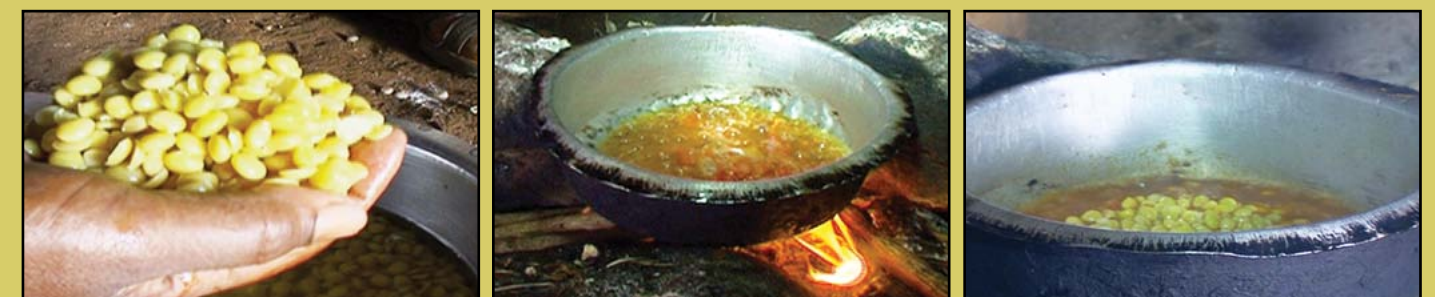
**Plant only certified seeds so you know they will grow. Buy seeds from KALRO Dryland Seed Ltd.**

## Eating Pigeon Peas

Pigeon Peas are very good for you and your family. They have:

<b>Protein</b> For growth	<b>Folate</b> Good for pregnant women	<b>Fibre</b> For digestion	<b>Vitamins A, C, B1 &amp; B2</b> To stop you getting sick	<b>Minerals Calcium, Copper &amp; Magnesium.</b> For good health
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### How to cook Pigeon Peas:



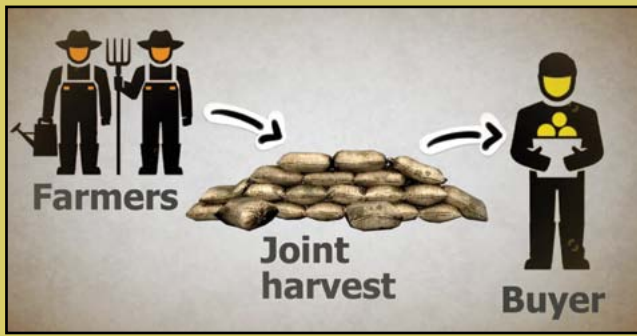
1. Wash the Pigeon Peas. Soak in water until soft.

2. Fry onions and tomatoes. Add a little water. Leave to boil.

3. Add the Pigeon Peas. Cook until the stew is ready. Serve with rice.



# Collective Marketing



Collective Marketing is when farmers form a group and sell their produce together.

The produce must be of the same quality. You must harvest at the same time as the other farmers in your group. This is so that you can sell at the same time.

Each group member must know how much produce to bring to the group.

## Benefits of Collective Marketing

- It is easier for 7 people to find 1 buyer than 7 people to find 7 buyers.
- You will all get the same price per kg of produce.
- Larger amounts of produce are easier to sell.
- Reduced transaction costs by selling in bulk.
- Buy seeds and fertilisers in bulk. Buy at wholesale prices and save money.
- Share equipment, such as knapsack sprayers or ploughs. You will all save money.
- Share farming tips with your group.



*If 7 farmers each transported 1 tonne of produce to market it would be expensive. If they transported 7 tonnes together, the cost per farmer is less.*

## Contract Farming

Contract farming is when you make an agreement with a buyer before harvesting.

Agree that they can supply enough of a crop at the agreed time & agreed quality.

The price is fixed and not affected by the changing market.

Agrees in advance to buy your produce.

Buys at a fixed price.

Collects the produce when it is ready.

If you can get a contract with a buyer for all of your crop, you do not have to worry about marketing.

You also know in advance the price you will get. **Make sure your contract is written and signed.**

**REMEMBER:** When the time comes to sell, the fixed price might be lower or higher than the market price.

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