

Series 6, Episode 15

Okal's Farm, Homa Bay, KENYA

This leaflet contains information on: preparing your land, fertilisers, planting maize, dairy cows, storage with PICS bags.



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

Prepare your land for direct planting

Conservation Agriculture is a way of farming. It keeps the soil healthy to give you a good crop. For Conservation Agriculture to work for your shamba, you must do all three of these things:

1. **Only dig the soil where you will plant.**
2. **Keep soil covered.** This can be with a live crop, like desmodium, or a dead mulch, like dry grass or maize stovers.
3. **Rotate crops.** Plant a cereal after a legume or plant a crop with deep roots after a crop with shallow roots.

Why do Conservation Agriculture?

1. Less work to prepare the land.
2. Less water, fertiliser and chemicals are needed.
3. Less soil taken away in wind or rain.
4. Less weeds, pests and diseases.
6. Healthier and more fertile soil. You will get a bigger and better crop.

After harvest, prepare your land for direct planting. There are 5 steps:



- 1. Cut crop residue**
e.g. cut maize stovers into small pieces. **Do not remove**, but leave them on the ground.



- 4. Add Manure**
Put a handful of manure in each planting hole. Use manure from your livestock.



- 2. Control Weeds**
If you spray a herbicide, make sure it is the right one for the weeds that grow in your shamba.



- 5. Cover with soil**
Fill in the hole with soil. Now your hole is ready for planting. **Just wait for the rain!**



- 3. Break hard pan**
Dig holes straight after weed control. Hit a few times with a hoe to break the hard pan. Dig the holes 15cm by 30cm, and 15cm deep.

What is a hard Pan?

A layer of soil that roots and water cannot pass through. If you dig your shamba with a jembe for many years you will make a hard pan.



For more information, SMS "CONSERVATION AG" to 30606

Use fertilisers for a bigger harvest

A soil test will tell you which fertilisers you need to add and how much. Using fertilisers correctly will give you a big crop.

A soil test will tell you the pH of your soil. **The best pH is between 6 and 7.** If your pH is less than 6, it means your soil is **acidic**. Your crop will not grow well.

If your soil is acidic, dig **Agrilime** into soil 1 month before planting or use **Physiolith** at planting.

Buy MEA Mazao fertiliser from agrovets in bags of 50kg, 25kg, 10kg and 2kg. You need 50kg for 1 acre.



MEA Mazao fertiliser contains lime so does not make the soil acidic.

Lack of Calcium

If fruits of Tomato or Capsicum are rotting at the base, they may need more **calcium**.

Mix 50 ml **Fertileader Magical** with 20L of water in a knapsack.

Spray leaves from germination. Repeat every 15 days until flowering.



Double your yield and save money with Biofix

Biofix helps beans and peas grow faster and give a better harvest. It saves you money as you do not need to add Nitrogen fertilisers. Buy Biofix from agrovets.

1. Dissolve 2 tablespoons Gum Arabic (white powder) or 2 tablespoons of sugar in 300ml clean water.
2. Mix with 15kg large seeds (french beans, groundnuts, soybeans) or 10kg small seeds (lucerne, desmodium) until seeds are wet.
3. Add 100g packet of Biofix (black powder). Mix until seeds are covered with the Biofix powder.
4. Plant immediately in moist soil. **Biofix** helps beans and peas grow faster and gives a better harvest. It saves you money as you do not need to add Nitrogen fertilisers. Buy Biofix from agrovets.



Use Biofix in organic farming.

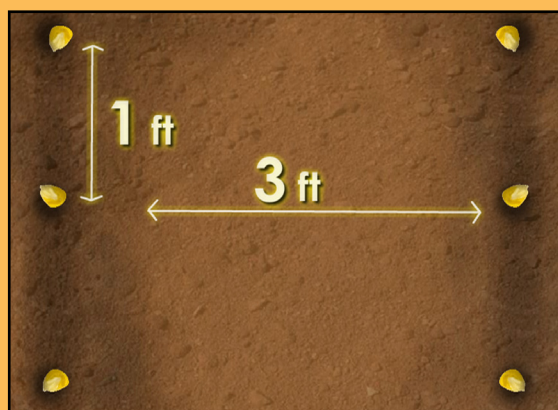
Planting Maize

Grow the right maize variety for your shamba to get a better harvest.

Seed Co makes seeds for different areas and conditions. Some seeds are good for high areas, some do not get diseases, and some are ready early. Seed Co varieties include **Simba 61**, **Duma 41**, **Duma 43** and **Punda Milia 55**.

Plant maize seeds at the start of the rains.

Plant 1 Maize seed in each hole. Plant 1 foot apart in rows 3 feet apart.



To find out which Maize variety grows best in your area, call iShamba on 0711 082606.

Simba 61 by Seed Co:



- Ready in 4.5 months
- Does not get Maize Streak Virus, GLS or Mottle
- Is good for dry areas
- Gives a good harvest in different conditions
- Gives 35-45 bags per acre

Caring for dairy cows

A good dairy cow should give at least 15 litres of milk each day. For a cow to give lots of good milk, it must eat a variety of foods. A cow needs Energy and Protein feeds, Minerals and Vitamins.



Dry crop residues are a source of energy.



Napier Grass is a good source of energy and vitamins.



Calliandra is a good source of protein.

If your cow only eats fodder, it will give 5 litres of milk per day. If you want more milk, you need to give your cow **dairy meal**.

For every 2 litres of milk over 5 litres per day, give 1 kg of dairy meal. So for your cow to give 12 litres of milk, you need to give it 3.5 kg of dairy meal every day.

Use dairy meal to make a profit

Feed your cow **only fodder** and get 5 litres of milk a day at 35/- per litre. **Profit of 175/-** per day.

To get 20 litres of milk per day, give your cow 7.5kg **dairy meal** at 32/- per kg = 240/-.

Sell the 20 litres of milk at 35/- per litre = 700/- per day.

$700 - 240 = 460/-$ profit per day.

Choosing breeds

Choose a breed which will do well in your part of the country.

Friesian cows do well in the **highlands**. They do not do well in the lowlands where it is hot and dry.



Jersey and Guernsey cows do well in the **lowlands** as they do not mind the weather.

Feeding your Calf

Feed your calf with the right feeds. Your calf will grow well and be ready for service by 14 months at 350 kg.

First 3 months



Calf Weaner Pellets

3 to 8 months



Young Stock Pencils

After 8 months



Unga Afya Meal

Storing Grain in PICS bags

Only keep food in your food store. Keep fuel, equipment and chemicals in a different store as they will affect your grain.

Store grain well and sell when market prices are high. You will make more money.

Store your grain in **PICS bags**. They do not let air in. Insects cannot breathe and so they die. You therefore do not need to dust for pests. Store grain for more than 1 year in a PICS bag.

Call 0725-521525 to find a shop selling PICS bags near you.

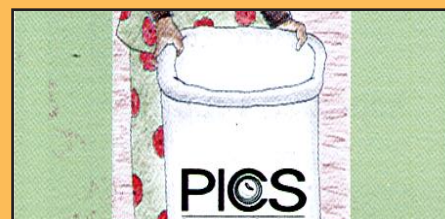
How to use a PICS bag



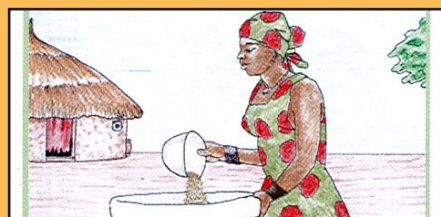
1. Make sure your grain is dry and clean.



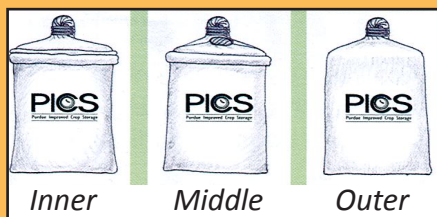
2. Check the 2 inside bags for any holes or tears. Do not use bags with holes or tears.



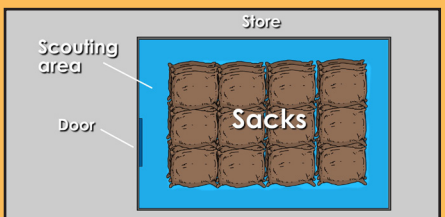
3. Put the 2 liner bags into the outside bag. Fold over the top.



4. Fill the inner bag with grain. Pack the bag tightly to remove air.



5. Twist the top of the inner bag and fold it over. Tie firmly with strong string. Repeat for the middle bag, then the outer bag last.



6. Store PICS bags in a cool, dark store. Stack on pallets 5 inches above the floor. Leave 1m between the bags and the wall.

For more information SMS "STORAGE" to 30606

Grow Green Grams for bigger profits



Green Grams give bigger profits than maize. You can sell 1 bag for 15,000/-.

Green Grams only take 3 months to grow. You can get 4-6 bags per acre.

Growing Green Grams is good for your soil. They add Nitrogen. They can grow well in dry areas.

Produced by Mediae



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

For another leaflet
or more information,
SMS 30606

