



Series 6, Episode 7

Steven's Farm, Meru, KENYA

*This leaflet contains information on:
tomatoes, organic french beans, soil testing,
conservation agriculture and grain storage*

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

For more information, SMS "TOMATOES" to 30606

Greenhouse Tomatoes

Scout every day for pests and diseases

Check tomato plants are getting enough food and water



Late Blight

Leaves have grey patches, then go brown, but do not fall off. Late Blight kills tomato plants. It is bad in the rains.

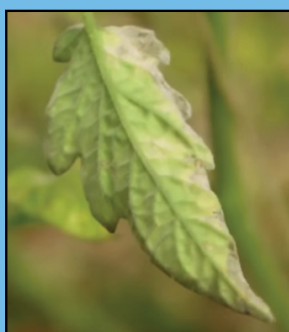
Mix 6 teaspoons **Mistress** with 20 litres water in a knapsack. Spray and repeat every 14 days.



Lack of Calcium

*Tomatoes should be red. If you see blossom end rot, they need **calcium**.*

Mix 6 teaspoons **Easy Gro Calcium** with 20 litres water in a knapsack. Spray leaves and repeat every 7 days.



Powdery Mildew

Leaves have a white powder, then go yellow and die.

Mix 3 teaspoons **Control** with 20 litres water in a knapsack. Spray leaves. Repeat every 14 days.



Water stress

If the flowers have dried up, the plant is not getting enough water.

Give the plant more water.



Whitefly

Whiteflies feed on leaves. Leaves turn yellow and may also fold in. Whiteflies carry diseases.

Mix 20ml **Nimbecidine** with 20 litres water in a knapsack. Spray leaves. Repeat every 7 days.

Keep away pests and diseases:

Keep your greenhouse clean. Weed inside and outside weekly. Weeds hide pests and diseases.

Rotate crops. After tomatoes, plant a crop from another family, like onions. Do not plant capsicums. They will not grow well after tomatoes and you will have a lot of pests and diseases.

Follow packet instructions for using chemicals.

Organic French Beans

For more information, SMS "ORGANIC" to 30606

Many farmers stopped growing French Beans when there was an export ban. This ban was because farmers in Kenya use too many chemicals.

Real IPM make pest and disease controls for **organic farming**. Organic farming means there are no chemical residues, so the crop does not get rejected for export. *There is a good market for organic French Beans and you can make a lot of money.*



Protect your seeds

A seed dressing fertiliser, like **Tricoat**, will stop pests and diseases on French Bean seeds in the nursery. You will need 250g Tricoat for 50kg seed.

1. Put French Bean seeds in a bowl and add a little water to wet them.
2. Sprinkle on Tricoat powder and mix well. Make sure all the seeds are coated.
3. Dry under shade for 30 mins. Plant seeds as soon as they dry.

Stop Red Spider Mites

Spider Mites feed on leaves and can kill the plant.

1. Mix 20ml **Achieve** with 20 litres water in a knapsack. Spray plants.
2. Repeat every 7 days



Control Nematodes

1. Mix 20ml **Sustain** with 20 litres water.
2. Drench the soil 7 days after seeds germinate. Use drip irrigation or a watering can.
3. Repeat after 7 days, then after another 7 days.



Control Whiteflies and Thrips

1. Mix 20ml **Campaign** with 20 litres water in a knapsack. Spray plants.
2. Repeat every 7 days for the first month. Then repeat every 14 days.

20ml is enough for ¼ acre.



Stop Diseases

Stop Rust, Anthracnose and Powdery Mildew with **Regain**.



1. Mix 40ml **Regain** with 20 litres water in a knapsack. Spray plants.
2. Repeat every 14 days for 6 weeks.

Hang sticky traps above your crops.

A **yellow** sticky trap will catch **whiteflies**.

A **blue** sticky trap will catch **thrips**.



Soil Testing

For more information, SMS "SOIL" to 30606

Soil tests help you to make your soil better. There are 3 soil tests:

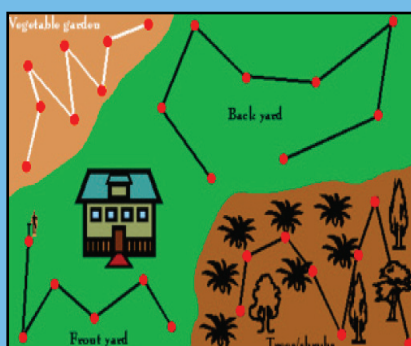
1. **Soil acidity (pH)** – A low pH (below 7) is acidic. A high pH (above 7) is alkaline. Maize like alkaline soil, but tea likes acidic soil.
2. **Soil fertility** – tells you which fertiliser to add and how much.
3. **Soil health** – tells you if you should add compost or manure. They help hold water in the soil, sustain useful organisms and make it stronger.

If your soil is acidic:

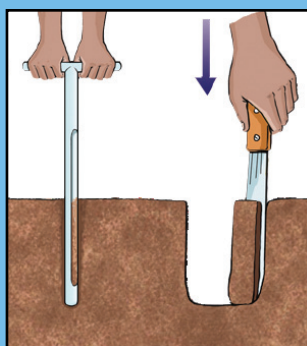
Dig **lime** into the soil before planting.

Use **fine Calcium Carbonate**. It works fast. Wet soil before you add lime.

How to take a soil sample



1. Decide where to take samples. You will need about 7 for each field (0.5-1kg soil for each field). Take samples in a zig zag pattern.



2. Take samples 25cm deep with a soil auger or panga.



3. Mix samples from the same field in a plastic bag. Use a different bag for each field.

SOILCARES SAMPLE LABEL	
CLIENT NAME:	
COUNTY LOCATION:	
SUB-COUNTY:	
WARD:	
PHONE NUMBER:	
EMAIL ADDRESS:	
FIELD SIZE:.....ACRES	
CROP TO BE GROWN:	

4. Label the bag with your name, address, field size, and the crop you want to grow. Drop it at your nearest SoilCares Laboratory.

To know when SoilCares is in your area, SMS your name & county to 20727.

Conservation Agriculture for better soil

Conservation Agriculture is a way of farming that looks after your soil. You will get a better harvest and more profit. To do conservation agriculture:

1. Do not plough

You will lose water and nutrients and will have to add more fertiliser.

Dig only the rows that you will plant in.

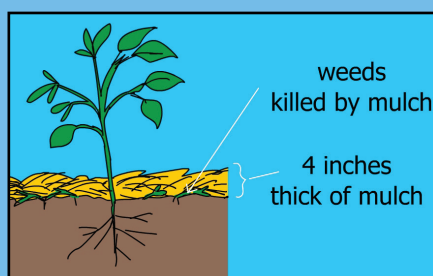


Use a subsoiler to break up the hard pan so roots can go deeper and get more water.

2. Keep soil covered

This will stop:

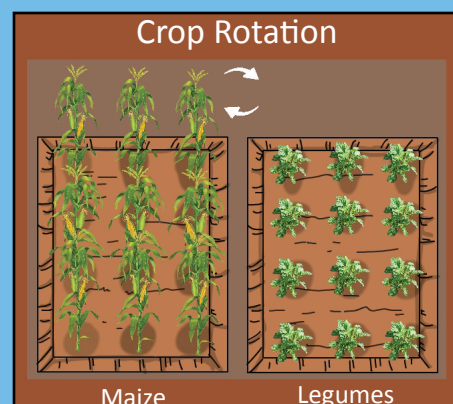
- water loss
- erosion
- weeds, pests and diseases
- soil getting too hot or too cold



After harvest, leave the left over crop on the soil to protect it, or use mulch.

3. Rotate crops

Rotate crops for a better harvest and less pests and diseases.



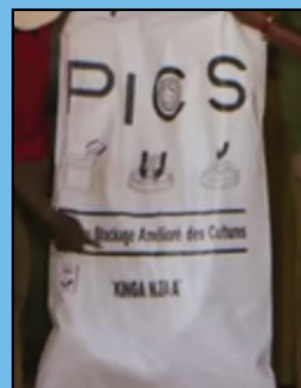
Plant Beans after Maize. Beans add Nitrogen to the soil.

Store harvest in PICS bags

For more information, SMS "STORAGE" to 30606

When market prices are low, store grains (maize, cowpea, sorghum) and dried cassava in a PICS bag to sell when the price is better.

- You do not need to dust your grain with chemicals. No air can get into the bag so weevils and other pests die.
- PICS bags have 3 layers. 2 layer are plastic and do not let air in. The outer layer is a woven plastic sack.
- Each bag costs KSh 250. You can use them more than once. Call 0725-521525 to find a shop selling PICS bags near you.



Store grain in a PICS bag for up to 5 years.

How to use a PICS bag



1. Make sure grain is clean and dry.



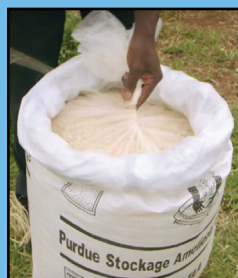
2. Take the bag apart. Check for holes and tears in the plastic. Do not use a bag with a hole or tear.



3. Put 1 plastic bag inside the other plastic bag. Then put them both inside the woven bag.



4. Fill the inside bag with grain. Make sure no grain gets between the bags. Shake the bag to get rid of air. Pack grain tightly.



5. Twist the top of the inside bag so it is tight. Tie well so no air can get in. Twist and tie the top of the next plastic bag. Then twist and tie the top of the woven sack.



Storing your PICS bags

Stack bags on wooden palettes in a dark store. They will get wet if stacked on the ground.

Keep bags 1m away from the wall to stop rats.

Do not keep your fertiliser, chemicals and tools in the same store as your harvest.

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

For another leaflet
or more information,
SMS 30606



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