

# Series 5, Episode 21

Christine & Christopher's farm, Jinja, UGANDA

*This leaflet contains information on: dairy cows, records, tissue culture bananas, apples and soil testing*



## Tissue Culture Bananas

*For more information, SMS 'BANANAS' to 30606*

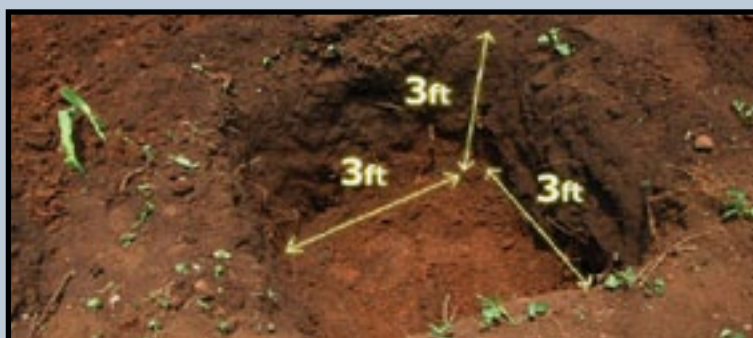
Use tissue culture bananas to get a good harvest. They are:

- Clean
- Healthy
- Good quality
- Disease free

Buy tissue culture bananas from good suppliers, like KALRO or Stockman. Choose varieties which grow well in your area, e.g. Cavendish and matoke varieties like Kinsasa, Mudwate and Kibuzi.

### To Plant TC Bananas

1. Find a place where bananas have not been grown before in your shamba.
2. Make a hole 3 feet by 3 feet by 3 feet.
3. Mix 1 debe of well rotted manure and a handful of planting fertiliser like DAP with the soil.
4. Add 2 matchboxes of **Meticode** or **Nemacur** to stop nematodes.
5. Put the soil back in the hole.
6. Plant the seedling in the middle of the hole.
7. Mulch with dry grass.
8. Water 3 - 4 times a week.



*Dig a hole 3 feet cubed for each banana seedling*

### Banana Management

1. Have only 4 trees in each stand.
2. Put 1 wheelbarrow of manure twice a year per tree.
3. Stop banana pests, e.g. nematodes, weevils and diseases like Black Sigatoka.
4. Rotate your banana field after 8 years. For a bad field, rotate every 5.



*Have only 4 trees in each stand*

## Dairy Cows

Feed cows well to keep them healthy and get more milk. Make sure that the cow is fed a balanced diet, which has:

- Dry feed: Dairy Meal, wheat and maize stalks.
- Fresh fodder: Napier grass, Calliandra, Desmodium or Lucerne.
- Supplements: mineral and protein supplements and a salt lick.

Spray and dip your cow every 7 days. Ticks have a life cycle of 7 days. Stop ticks using **Triatix** or **Grenade** - always change the spray every 6 months to stop the ticks becoming resistant to it. To spray your cows:

1. Take the cow's weight using a weight band to know how much spray to use.
2. Use a ratio of 1 ml:1 litre - mix 20ml of Grenade or Triatix in 20 litres of water.
3. Spray the tail towards the head using a knapsack, covering every part of the cow including the ears, udders and chest.
4. Spray other small animals on the shamba like dogs, goats and sheep because ticks move from one animal to another.



Use a weigh band to know how much drugs to use



Ticks cause disease like ECF



Lungworm, such as this, tapeworm and roundworm are common in cattle



Insert the dewormer and hold until the cow swallows

Worms cause your cow to loose weight and not produce a lot of good quality milk.

Deworm your cow every 3 months. Signs of worms are a rough coat, hair falling out and diarrhoea. For calves, deworm every month.

1. Use a weigh band to measure the cow's weight.
2. Use a ratio of 1:10 (drugs to cow's weight) for the amount of dewormer to use. For example, for a cow weighing 300kg, use 30ml of **Nefluk**.
3. Put the dewormer in the drenching gun, bottle or syringe.
4. Put the dewormer down the side of the cow's mouth.
5. Pour the dewormer down the side of the cow's mouth, slowly.
6. Hold the cow's mouth until it swallows all the liquid.

For more information, SMS 'COWS' to 30606

## Financial Records

For more information, SMS 'FINANCES' to 30606

Good records help you run your shamba like a profitable business. A cash book is a very good way to keep records of what you are spending. It records all the money coming in (income) and going out (payments).

### Keeping Records Helps You:

- Know if you are making a profit or a loss
- Use you money well
- Know which part of the farm is making the most money
- Get a bank loan

### Making A Profit:

- If your income is more than your expenses = profit.
- If expenses are more than your income = loss.
- If you are making a profit, reinvest it in the farm.
- If you are making a loss, find out where the problem is and solve it.

Money in			Money out		
Date	Description	Amount	Date	Description	Amount
2/5/2015	2 litres of milk	80/-	6/5/2015	Vaccination costs	2,000/-

A cash book like this will tell you how your money flows

For more information, SMS 'SOIL TEST' to 30606

## Test Your Soil

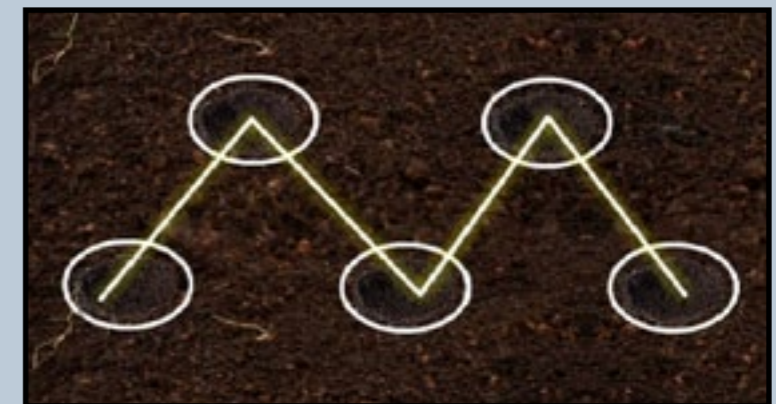
Test your soil every 2 years to find out:

- What is missing in your soil
- The type and amount of fertiliser to use
- Whaty grows best in your shamba

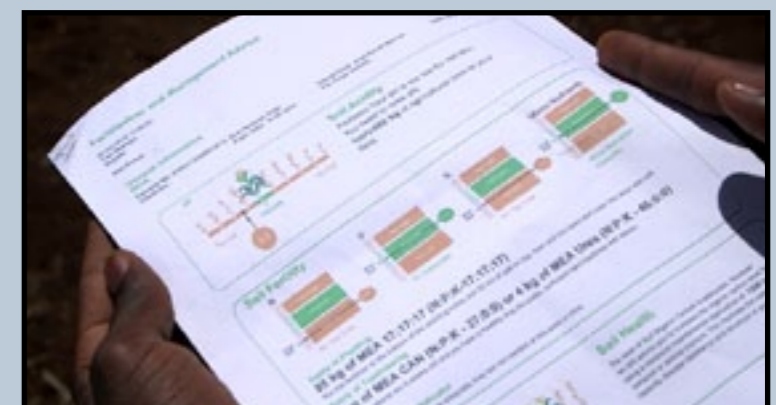
### Doing A Soil Test

To get a good soil sample to be sent to be tested:

- Dig a hole 1 foot deep and take a slice from the side of the hole using a panga, or use a soil auger.
- Take soil 20cm deep from 20 different points using a panga/auger in a zigzag pattern.
- Mix the soil collected and put a handful in a sample bag.
- Label the bag with your name, phone number, size of the shamba and the crop you want to grow.
- Send the sample to SoilCares for testing.



Use zigzag method to collect a good sample



The soil test report will tell you which fertiliser in your shamba

If your soil is acidic: add 10 - 15 bags of agricultural lime per acre or use **Physiolith** to reduce acidity - always wear gloves, a dust coat and a mask when adding lime.

It takes 2 years for lime to bring down the pH of your soil, so remember to add lime each season. Apply lime before the rains start and dig into soil. You can add Physiolith at planting.

# Growing Apples

For more information, SMS 'APPLES' to 30606

Use varieties that grow well in your area. There are 40 varieties that do well in warm tropics e.g. Anna F1. Graft with a good variety to get good apple trees. Join the variety with a root stock.

Graft to make the apple:

- Give bigger harvest.
- Grow fast healthy.
- Mature fast. It will start to give fruits after 2 years.
- Remove all the leaves after harvesting the fruits to let fresh leaves grow after 4 - 6 weeks.

## Grafting Root Stock

To graft you will need:

- 1 foot high root stock
- Scion (variety)
- Secateurs
- Grafting tape
- A label and a pen.

To graft:

1. Make a 'V'-shaped split on the end tip of the root stock using clean secateurs.
2. Make a V- shaped cut on the lower end of the scion - this will be the variety.
3. Put the scion inside the 'V' cut on the root stock.
4. Tie together using grafting tape to join them, stop diseases and so the join does not dry out.
5. Label the variety and the date you grafted.

## To Plant Apple Seedlings

1. Dig a hole 4 feet wide and 3 feet deep in an open field.
2. Mix the top soil with 1 debe of manure.
3. Fill back the hole with soil and well rotten manure.
4. Mark the centre and dig a planting hole.
5. Put the apple tree in the hole and spread the roots.
6. Firm the base around the roots with soil.
7. Use dry leaves to mulch around the tree. Do not let the mulch touch the tree to stop ants.
8. Water every 2 days.
9. After 8 - 12 months, prune to remove extra stems and give big apples. Make a slanted close cut at the base of the branch using clean, sharp secateurs to drain away rain water.
10. If you do not prune the tree, it will stop giving fruit.



Put the scion into the root stock and tie using the graft tape

Produced by Mediae



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

For another leaflet  
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