

# Series 4, Episode 4

Beatrice and Nicodemus' Farm

This leaflet contains information on: Growing Orange Flesh Sweet Potato, local chickens, chicken vaccinations, planting vegetable nursery, and soil fertility

# **Improving soil fertility**

Soils in Kenya are not very good. You need to use fertiliser to keep your crops healthy.

**Nitrogen** helps the plant to grow. When the crop does not have enough Nitrogen the leaves will be **yellow** and the plant will be **short or stunted**.

To give your crops the best chance, plant each seedling or seed hole with one **capful** of planting fertiliser, such as **Mea Mazao 23** and then topdress twice when the plant is growing with **CAN or Urea** at the rate of **one teaspoonful per plant**.

Remember to take a soil test before you choose your fertiliser. You must use the correct fertiliser for your soil.

You can do a soil test with Mea:

Mea Ltd Laboratory PO Box 1018 Nakuru Stanley Mathenge Road 054 2212220 mea-laboratory@mea.co.ke

For more information SMS 'SOIL TEST' to 30606



When a plant does not have enough Nitrogen, the leaves will be yellow and the plant may be stunted.



When a plant does not have enough Phosphorous it will have purple marks on the leaves.

## Getting help to start a farming business

Technoserve's Smallholder Poultry Agribusiness Development program and Strengthening Rural Youth Development through Enterprise program are working to help people set up chicken businesses and to help youth in rural areas get into business.

For more information, SMS 'TECHNOSERVE' to 30606

## **Planting Orange Flesh Sweet Potato in ridges**

Orange Flesh Sweet Potato (OFSP) is a good food for the family, and helps children to grow. OFSP is sweeter and healthier than the local white sweet potato varieties.

You need a small handful of OFSP every day per person for the family to stay healthy.

You can plant your OFSP in **ridges or mounds.** This allows the roots to grow bigger.

## **Selection of variety**

Many Kenyans prefer red skinned to white-skinned varieties. OFSP has orange flesh - a deeper orange colour means that the potato gives you more Vitamin A.

## **Planting for good roots**

- 1. Start planting when there will be **two months** of good rain. This means your potatoes will grow well and be of good quality.
- 2. First, make ridges **3 feet apart.** Mix the soil with manure.
- 3. Take cuttings from the tip of the plant that are **25-30cm** long. Do not take cuttings from the base of the plant.
- 4. Make planting holes **30cm** apart along the ridge
- 5. Plant **1 vine per hole** plant two-thirds of total length of cuttings in the ground.
- 6. Mix ash with the soil through the growing season to give the roots **Potassium** to help them grow.

For more information, SMS 'Sweet Potato' or 'OFSP' to 30606

## Starting a local chicken business

Local chickens are good for business as they do not need a lot of inputs, and are easy to breed. Remember to change your rooster every 6 months.

#### Selection of variety

There are many types of local chicken. **KARI** is breeding a new type of local chicken which grows quickly and is resistant to diseases. You can buy chicks from KARI or from your local poultry breeder. To improve your flock, have **one improved rooster** for every **nine hens** and change the rooster every 6 months.

The KARI breed can produce 200 eggs a year, compared to other local chickens which produce 60 eggs a year. These chickens do not get broody, and lay for a long time.



KARI breeds are a good option for a local chicken business



Kaboo

Choose a good OFSP variety to get better yields





## **Housing for chickens**

Each chicken needs at least **1 square foot** of space inside the chicken house. If there is not enough space, the chickens will be stressed, and can start to peck each other. This will make them grow slower.

The chicken house should be 7 feet high to let the farmer in to clean and collect eggs.

The house should be shaded from the sun. The back of the house should have **one laying nest for every 6 birds.** The house should have ventilation, and be kept clean and dry.

The chickens also need perches inside the house. Use **round** sticks or poles 1 inch wide for the chickens to perch.

### Feeding local chickens

Chickens need good feed and plenty of clean water to grow well. There should be **one drinker for every 50 birds and one feeder for every 30 birds** in the chicken house. The feeders and drinkers should be cleaned **every week**.

Local chicken chicks should be fed on **Chick and Duck Mash** for the **first month.** They can then be fed on plants or vegetables growing in the shamba, mixed with feed from the shop.

For more information, SMS 'LOCAL CHICKEN' to 30606

#### Vaccinating chickens

Chickens can get a lot of diseases. People carry diseases when travelling, and the diseases can also move from shamba to shamba.

It is important to vaccinate your chickens so they do not die. The three main diseases to vaccinate against are **Gumboro**, **Newcastle Disease** and **Fowlpox** which all affect local chickens. These are viral diseases, which cannot be cured, so it is best to vaccinate.

Vaccines for Newcastle and Gumboro can be given **in drinking water or as eye or nose drops.** Fowlpox vaccines are given with a needle into the wing web.

Ask your vet or agrovet to show you how to mix and give the vaccines.

Basic vaccination program for chickens

| Age      | Disease                                    | Vaccination method   |
|----------|--|----------------------|
| 1 Day    | Marek                                      | Injection            |
| 18 Days  | Gumboro                                    | Drinking water       |
| 24 Days  | Gumboro, Newcastle, Bronchitis             | Drinking water       |
| 30 Days  | Gumboro                                    | Drinking water       |
| 6 Weeks  | Newcastle, Bronchitis                      | Spray/Drinking water |
| 10 Weeks | Newcastle, Bronchitis                      | Spray/Drinking water |
| 13 Weeks | Fowl Pox                                   | Wing Web Stick       |
| 13 Weeks | Newcastle, Bronchitis, Gumboro, Salmonella | Injection            |
| 15 Weeks | Newcastle, Bronchitis                      | Spray/Drinking water |

# **Planting capsicum in a nursery**

Capsicums are a good crop to grow for cash. **Yellow and Red** capsicums are popular in the market. If you choose a good variety, like **Admiral** from Syngenta, you can get between **2 to 4 kg** of capsicum from each plant.

To plant capsicum, first prepare a nursery bed **7 days before planting the seed.** Start by digging over the soil and mixing with **manure.** 



Leave the plot for 7 days. This will let the manure and the soil mix well and keep your seeds from being burnt by the manure.

On the 7th day, **dig over the plot** again and make sure the soil is fine, without clods.

Make rows with a stick, 1 inch deep, and 6 inches apart.



Then, mix the capsicum seeds with Apronstar which is a seed dress. Seed dressing stops insects eating the seed and disease affecting the seedling. It can also make the seed germinate faster so your seedlings are ready to transplant sooner.



Plant seeds 1 inch apart on the rows. Cover the nursery bed with mulch to protect the seeds. After 6 to 8 weeks, transplant the seedlings to the main field.

For more information, SMS 'CAPSICUM' to 30606

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