

Series 6, Episode 11

Hellen's Farm, Embu, KENYA



This leaflet contains information on: vertical bag gardens, dairy cows, broilers, vaccinating chickens

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

For more information, SMS "ORGANIC" to 30606

Bag Gardens



Grow many vegetables in a small space with a vertical bag garden. In the ground, you can grow 10 plants in 1 square metre. With a vertical bag garden, you can grow 100 plants in 1 square metre. Vertical bag gardens are good because:

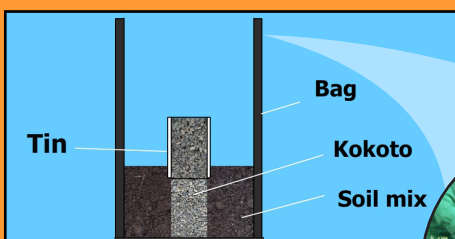
- They do not need a big space.
- They use less water – only 30 litres per week.
- You do not need to weed.
- It is easy to spray and harvest your vegetables.
- It can be used for organic farming.
- One bag can last 10 years.

Buy **vertical bags** from Real IPM. Call 0725-806086. You can also buy from agrovets. There are 3 sizes: 100 plants, 80 plants and 40 plants.

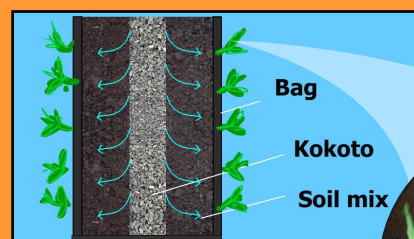
How to set up a vertical bag garden



**Soil Mix for
100 plant bag**



Cut the bottom from a tin. Use the tin to make a column of kokoto in the middle of the bag, with soil around it



Pour 10 litres of water into the kokoto 3 times a week.



A healthy and productive cow

A good cow needs good housing and feeding. Care for your cows. They will be healthier, produce more milk, and make you more money.

Build a good cow shed

A **mabati roof** to protect your cow from rain and sun. Catch rainwater for your cows to drink.

Put **clean water** in the water trough every day and feed in the feeding troughs. Troughs must be at least 3 feet above the ground.



Space for your cows to lie down. If your cow is **pregnant**, put in a wall so it is not with other cows.

A sloped floor so slurry and water can drain. Clean and dry the floor every day.

Feeding your cow

A cow has to eat a mix of foods to be healthy. Grow dry feeds and fodder crops on your shamba so you do not have to buy them. A cow needs:

1. **Energy Feed** (both dry & fresh), fodder - Napier, Hay
2. **Protein Feed** - Calliandra, Desmodium, Dairy meal
3. **Vitamin and Mineral supplements**
4. **Clean water**



Calliandra is good protein.



Cut fodder into ½ inch pieces so it is easy for the cow to eat.

For **milking cows**, give 200g (1 full glass) **Maclik Super** every day. This helps body condition and gives minerals needed for milk.

For **pregnant cows and heifers**, give 100g (half a glass) **Maclik Plus** every day. This helps calves grow strong bones, makes it easy for the cow to calve down, and helps heifers come on heat and get pregnant. You can give mineral supplements 'ad libitum', that is, give as much as the cow will eat.



Signs that there is something wrong with your cow:

If your cow's hair is falling out, it may have worms.

De-worm your cow with Nefluk or Nilzan every 3 months

If your cow is giving very little milk and the coat does not look good, it needs more minerals.

Feed Maclik from Coopers.

If your cow does not eat & drink, is dull and not active.

Call a vet to inspect it.

Keeping Broilers

The Brooder

Build a round brooding pen for your broiler chicks. This is so chicks don't get trapped in the corners. Get the pen ready 24 hours before chicks arrive.

A **jiko** keeps chicks warm.
Light 6 hours before new chicks arrive.

Put feed in flat feeder trays.
Have 1 feeder tray for every 50 chicks.



Drinkers –make sure your chicks always have clean water. Have 1 drinker for every 50 chicks.

Put newspaper on top of dry wood shavings. Spread a few handfuls of food on the newspaper so chicks can start eating straight away.

Feeding broilers

Days 1-21



Fugo Fast-Gro Starter Mash
1 chick will eat 1kg in 21 days.

Days 21-35



Fugo Fast-Gro Finisher Mash or Pellets
1 bird will eat 1kg in 14 days.

Make sure your broilers can get food and water all the time. Let them eat and drink as much as they want.

Change feed slowly. Mix starter and finisher for 2 days while changing.

Add to the water:

- **Liquid glucose** – for energy
- **Liquid paraffin** (1 drop) – helps digestion
- **Vitamins** – to help with stress

Your broilers should mature in 35 days at 1.4kg.

Keep pests and diseases away from your broilers

Step in a footbath of disinfectant before going into your chicken house. This stops you taking diseases inside on your feet.

Clear all bush and weeds within 5 metres of your chicken house. Weeds hide pests and diseases.



A foot bath with disinfectant will help stop pests and diseases.

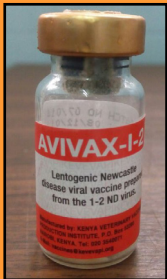


Keep your chicken house clean.
Make sure air can pass through easily.

Vaccinate broilers for Newcastle Disease (NCD) and Infectious Bronchitis at 7 and 21 days.

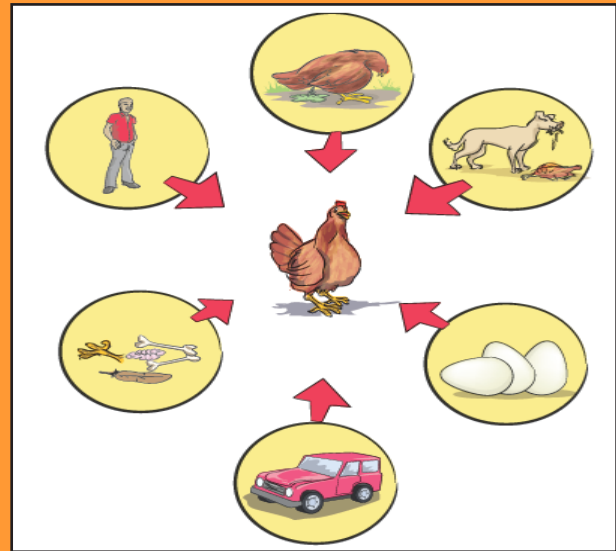
Vaccinating chickens

Vaccinate your chickens to stop diseases. Viral diseases like Newcastle Disease (NCD) have no cure and kill your chickens. You will lose a lot of money. Vaccinating does not change the taste of the meat.



Vaccinate for NCD with **AVIVAX**. 1 vial is enough for 500 birds. Store the vial in a fridge. You can also buy mixed vaccine in a dropper for 100 birds; this does not need to be kept in a fridge.

Vaccinate at the same time as your neighbours to keep NCD away from your area.



Your chickens can get NCD from many different sources: infected chickens, droppings, through air, contaminated items etc.

Vaccinating against NCD

Have a place for vaccinated chickens, and a place for chickens waiting for the vaccine. Vaccinate in the shade.

1. Mix the vaccine with clean water. Follow the instructions on the bottle.
2. Hold the chicken firmly.
3. Put 1 drop of vaccine into the eye OR nose of the chicken.
4. Wait for the chicken to blink or breathe it in.
5. Start at 7 days, and repeat after 14 days. Then every 3 months.



Put 1 drop of vaccine into the eye.

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Saturday 1.30pm (English)
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