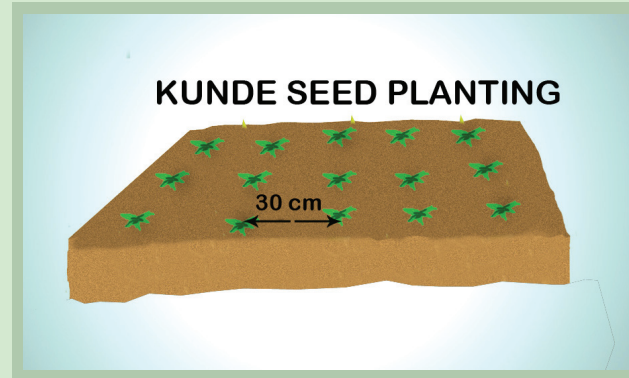


Kunde planting

Irene has a small plot of land that she wants to use to make money from. She plants her own kunde seedlings that will grow and then can be sold at market for a profit.

1. To plant kunde, first prepare the soil by mixing in manure.
2. Make furrows 30cm apart, or one hand width, to give room for growth.
3. Cover seed and water daily.



Planting techniques



Chopped grass

Making silage

During the dry season, food for animals can become more scarce. This is why making silage is a good idea.

1. Cut up your fodder (napier grass, sorghum, maize stems or sugar cane can be used) into small pieces.
2. Mix 1 part molasses with 3 parts water and cover fodder.
3. Make sure the bag is sealed with no air inside and leave for 8 weeks.

Hand pump

Alex and Irene have a seasonal stream at the bottom of their shamba. To compete with climate change and short rains, they built a Money Maker hand pump for their well.

The change from the unreliable electric pump to a Money Maker hand pump means that their plants at the top of the shamba have a fresh supply of water all year round and stops Alex and Irene having to collect the water themselves.



Money Maker hand pump

Produced by Mediae



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hr@coopers.co.ke



+254 20 2106793, 703 896996
dlightafrica@dlightdesign.com



+254 20 2301518/20,
info@kenchic.com



Series 3: Episode 1

Alex & Irene's farm – EMBU

This leaflet contains information on: mango farming, chickens, kunde planting, silage making & water pumps.



Mango farming

The ICIPE expert has helped Alex and Irene to control pests with only a small use of chemicals to win the war against fruit flies. There are lots of ways to get rid of fruit flies. These insects can cause big problems to mango crops by laying their eggs in the fruits, ending in them killing an entire crop. Rotten mangos have small black spots on them where the flies have laid their eggs.

Protein Bait Trap

This type of trap catches the fruit flies by trapping the females as they are drawn to feed on the protein mix inside the trap called **MAZOFEM**. The **MAZOFEM** is mixed with water to make a liquid for the flies to get stuck in. The traps are then hung on the trees around the orchard.

The traps can be refilled when they are full of the flies. You can even make a trap at home if you cannot buy one from the shop! The trap is simply made from a plastic water bottle with holes cut in to let in the fruit flies, and has a wire hook to attach it to the tree. The same mix is added to the bottle as with the shop bought trap.



Mango with black spots on it



Bottle trap



Protein trap on branch

Spraying Your Mango Trees

Another way to protect mangos from fruit flies is to spray the mango trees with a mix of **70mls** of **MAZOFEM** protein bait, **1 litre** of water and the specific amount on bottle of killing agent called **SPINOSAD**.

It is important that only a **1 metre**, area of each tree is sprayed not the whole thing, and in an area where there are no fruits. Use about **50ml** of mix per tree. The female fruit flies are again attracted to the protein in the mix, but once eaten, the poison kills them. To get the best results, repeat this process on every tree once a week.

Don't forget to wear protective clothes when spraying your mango trees!

Killing the Males

This method is the same as before but for the male fruit flies instead of females. Mix the protein liquid (**MAZOFEM** and **water**) with the catewick and then add the poison, as before. By killing the male fruit flies, the females are missing partners to breed with, so the fruit fly numbers go down.

Farmer's Friends

Farmer's Friends are the natural enemies of fruit flies. They kill them by laying eggs on the maggots which eat the mangos and therefore killing them before they can do any harm. By letting them around your farm you help destroy the fruit flies.

Many farmers bury their rotten fruit but this can be bad, as it means that as well as burying the bad fruit flies, you also bury the good Farmer's Friends. Instead, put your fallen fruit into a tent (picture) which captures the bad flies, but allows the smaller good flies to get out and carry on with their job of saving your fruit!

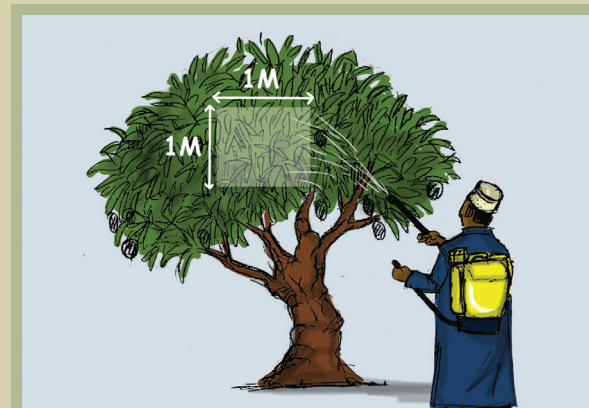
Chickens

Irene keeps local broiler chickens that give her a small income.

A KenChic expert comes to help her increase her flock and her profits with 300 one day old chicks.

It is important that chickens can have a healthy place to live as a stressed or unhappy chicken will not produce good eggs or meat.

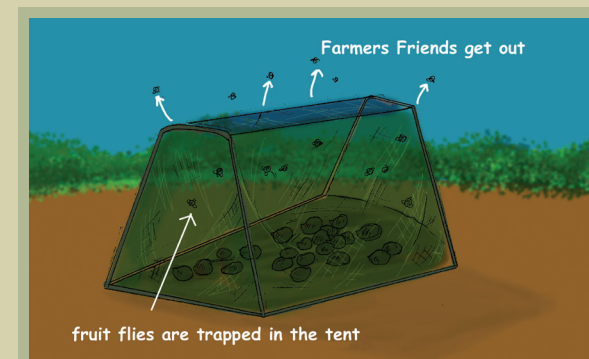
The KenChic expert explains why you should not mix broiler chickens with local chickens as this will spread disease which can hurt your flock.



Mango tree being sprayed in 1 metre square



Trap hanging on tree



Fruit fly tent

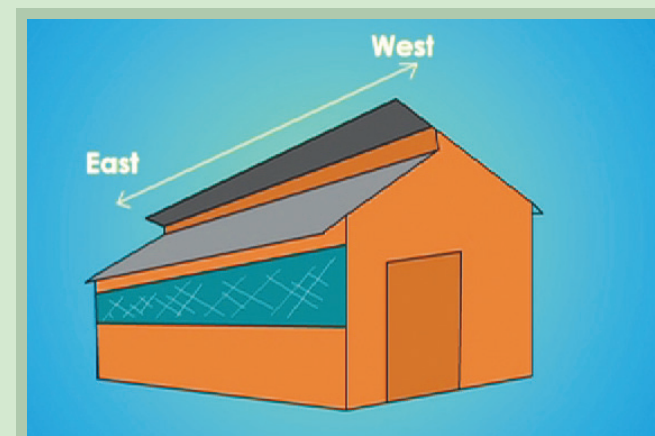


Broilers chicken

Building A Chicken Coop

Good things to remember when making a chicken coop:

- Build the coop in a rectangle shape for lots of air to get into the coop.
- Build the coop away from both humans and animals to stop disease spreading.
- Build it on the flat so no chicks fall over and hurt themselves.
- Build the coop on an **east to west** direction so no direct sunlight hits the chicks.
- One bird needs **1 square foot** to move about in. Chickens that are crowded will grow into different sizes and will be unhappy, which isn't good for when you want to sell them.
- Make sure the wood used to build it has been painted with wood preserver to stop termites.
- Add a tarpaulin to stop any extra wind.
- Disinfect the whole coop, inside and out, 24 hours before getting your chicks to stop disease. Also add a bucket by door to stop feet bringing in diseases from outside.
- Add a jiko to the coop to add warmth for the new chicks.



Coop east/west



Coop 1 foot square

What To Feed Your New Chicks

Weeks 1 - 3:

The KenChick expert suggests that for the beginning of their lives the chicks should be fed **FUGO FAST GROW BROILER STARTER**. The pellets are very small and so the chicks avoid choking on them. With this feed, there should be lots of water for the chicks to drink available.

Weeks 3 - 6:

After 3 weeks, the chicks can move on to **FUGO FAST GROW BROILER FINISHERS** which help them put on weight and produce healthy meat for sale.

KenChic suggest adding **vitamins** and **glucose** to the chicks food to avoid stress and help them gain weight. A small amount of liquid **paraffin** is added to the chicks water to help them pass faeces.

Happy chicks mean bigger & fatter chickens!



Fugo fast grow broiler starter (Left) and Fugo fast grow broiler finishers (Right)



The pellets are very small and so the chicks avoid choking on them