



Ploughing

Traditional Victory plough



- Hard to use in dry soil
- They are not good at keeping water in the soil
- They can lead to soil erosion

Ripper



- A ripper breaks the soil surface only where seeds are to be planted
- It allows water to enter the soil only where seed will be planted
- It is faster than traditional ploughing
- It is easier than traditional ploughing as it has a narrow edge

Terraces

Why you need terraces

- Terraces conserve water
- They stop soil from being washed away
- Water gets held by the terrace and gets into the soil
- The wet soil keeps nutrients in it which is good for your plants



1. Dig a trench
2. Heap soil on top to make a terrace
3. Make sure you always look after the terrace so it works properly
4. Plant grass on the terrace
5. If left bare, the terrace will erode
6. Napier Grass is a good grass type as you can also feed it to your animals

Produced by Mediae



Watch us on citizen television on Saturday 1.30 - 2.00pm(English) Sunday 1.30 - 2.00pm (Kiswahili)

For another leaflet or more information sms 5606



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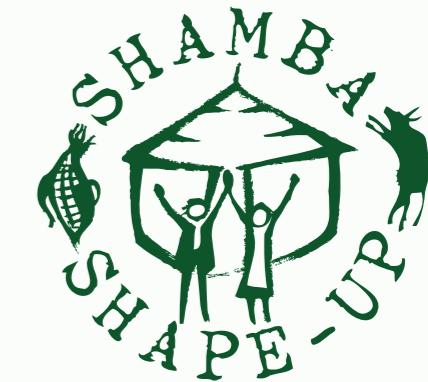
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Shamba Shape Up Series 1: Episode 2

Joseph Wambua's Farm - Kimutwa, Machakos



This leaflet contains information on: irrigation, poultry house, ploughing, terraces and crop diversification

Drum Irrigation Kit



You will need

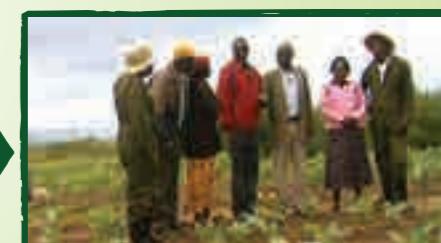
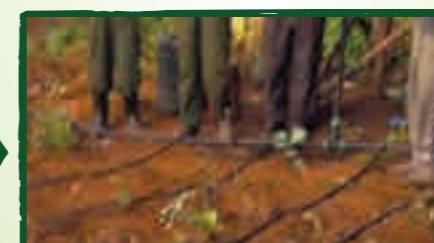
- A tank
- A platform
- Rows of pipe attached to the tank
- Pipe connections

How it works

Small holes are made in the pipes. These holes let water slowly drip out to keep the base of the plant wet without using too much water.

Advantages

- Saves water
- Very easy to use
- Makes watering quicker
- Less weeds grow as water only reaches the crop



1. The tank needs to be put on a platform about 1.5 metres high. This is to make sure water can flow down. You will need another container to fill the tank with water
2. Lift tank on top of platform
3. Attach main big hose to the tank
4. Smaller pipes are attached to the main hose
5. Lay the pipes in line with your crops
6. Fill the tank with water
7. Watch as drips water your crops!



Where to buy drum irrigation kits

Where to buy a kit

KARI Small Scale Drip Irrigation Project

*KARI Kabete
National Agricultural Research Laboratories
P O Box 14733-00800
Waiyaki Way, Nairobi*

Tel: (020)2672975
Email: irrigation@iconnect.co.ke

Cost

- The cost depends on the size you need
- A kit without a tank costs about 9000 kshs
- A kit with a 200 litre tanks costs about 12,000 kshs
- It will cost more for larger farms that need bigger tanks and more pipes
- The cost of the kit will soon be paid for by the sale of healthy crops!

Gutters and overspill tanks

- To capture as much rain water as you can, gutters should be added to your house
- Overspill tanks can also be used to capture even more rain water. Water can be stored and used to irrigate crops when it is dry.



Poultry House

Building a good poultry house protects birds from the rain, sun and wind so they don't get too hot or too cold and helps them grow healthy.

Size: 1 square foot is needed per bird so they have room to move.

Direction of sun: Stop direct sun coming into the shed. Birds like to crowd by sunlight. When they are too close together they start pecking each other.

Walls: Some sides of the shed need to be open to let air in. On open sides, short walls of 3ft should be built. Cover the open area with wire mesh and attach curtains outside made of old sacks. Curtains stop the wind getting in. The curtain should open from the top.

Roof: Should not be flat or the house will get too hot. Make a pitched roof that lets air in. Cover with wire mesh to stop other birds coming in the house.

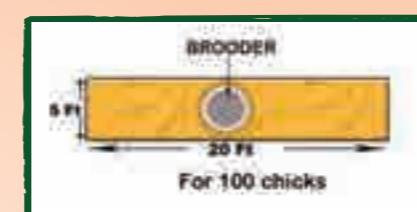
Floor: Flat, level and firm made of concrete or murram.

Foot bath at entrance: Feet should be dipped in disinfectant before you go in the poultry house to keep it free of disease.

Round pen: Young chicks need to be kept in a round pen inside the poultry house for the first 3 weeks. Use hard wood to make a pen, 60cm high. Put wood shavings on the floor of the pen.

Jiko: A jiko should be placed in the middle of the pen to keep chicks warm. One jiko is enough for 300 chicks. The jiko should have a hood to keep heat in. Jiko is needed for the first 3 weeks only.

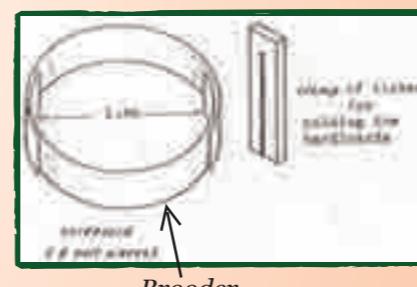
Feeders and drinkers: Put food on plastic trays. Plastic drinkers should be used for water. One drinker per 80 chicks is needed.



Chicks need enough space



Curtain outside house



Brooder with plastic tray, Jiko and waterer

Taking care of chicks

Where to buy

- You should buy chicks from a good hatchery. **Kenchic** is a very good supplier of day old chicks
- To make sure you get chicks when you need them, place an order early

*Nairobi Kenchic Poultry Centre,
Exsan House, Enterprise Rd,
P. O Box 20052, 00200.
Tel: 020 3560102, 020 3560103,
Mob: 0734600204, 0722202163*

Feed

- It is very important to feed chicks well
- Unga Farm Care sells good feed for chicks
- Fresh food should be given daily
- Water drinkers need to be cleaned daily

*Unga Farm Care,
Dakar Road,
Industrial Area.
P. O Box 41788-00200,
Nairobi.*



Feeding process



When chick is 1 day old to 3 weeks old

- Feed with "Unga Fast Grow Starter Mash"
- Feed 3 times a day
- Make sure fresh, clean water is also given
- For 100 chicks you will need to buy 100kg of starter food to last 3 weeks



When chick is 3 weeks old to 6 weeks old

- Feed with "Unga Fast Grow Finisher Mash"
- For 100 chicks you will need to buy 500kg of finisher mash to last 3 weeks



When chick is 6 weeks old

- At 6 weeks old chicks are ready to sell!

Crop diversification

Crop diversification means growing more than one crop on a farm. If one crop fails, the farmer will still have other crops to harvest.

Why?

- Maize is not always a good crop for dry areas as it needs a lot of water and it may not give you a good harvest
- You can plant other crops that will give you a good harvest as they need less water
- More crops means you can sell more in the market

What to plant

Plant crops that do not need a lot of water and have good markets. Here are some ideas of good crops for dry areas. Try 2 or 3 of these dryland crops:

1. Beans
2. Cassava
3. Sorghum
4. Cow peas
5. Pigeon peas
6. Green Grams



Pigeon peas



Sorghum