## Make more money from your milk

Milk prices are good in droughts. To make more milk in the dry season so you can make more money, you need to make food which you can store.

#### Silage

To make silage you need a big sheet of plastic, molasses, water and chopped Napier grass or boma grass, and a big pit 3 feet deep by 6 feet long by 3 feet wide. First, mix part molasses with 3 parts water (e.g.: 10 litres molasses with 30 litres water).

Line the pit with the plastic. Put chopped Napier in until it is 1 foot deep. Pour over some of the molasses-water mixture. Compress the layer. Do it again and again, pressing the grass down every time.

When the pit is full, cover with plastic and press hard to take all the air out. Then cover with soil. The silage will be ready to feed your cows in 3 months and can be kept for 6 months. Remember to cover the silage well after you take any to feed the cows.



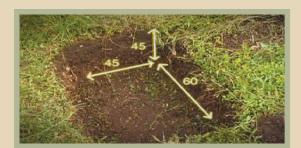
First, chop the Napier



Then dig a pit, line with plastic and get molasses and water.

#### Hay

Making hay bales is very cheap and easy. You need a pit 1 ½ feet deep, 1 ½ feet wide and 2 feet long, and some string. Line the pit with string, two strings in each direction. Dry your desmodium, Lucerne or grass in the shade. When it is dry, press it into the pit by stamping on it. When the pit is full, tie the string around the bale and take it out of the pit. Remember to store the hay bales in a dry, covered area off the ground for up to 6 months.



First, dig a pit



Once you have put enough grass in the pit, tie the string tight and you have a bale!

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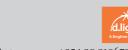


















# Series 2: Episode 12

How to adapt to climate change

This leaflet contains information on: how to adapt to changing weather by using weather forecasting, planting trees, improving maize production, making silage and hay, growing sorghum, planning a market, making compost, solar lights, water harvesting and clean, fast jikos



## **Plan your farming**

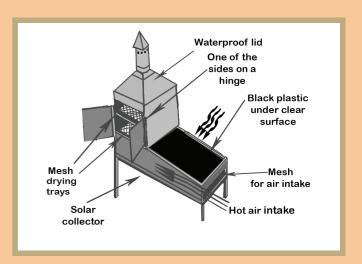
A good way to adapt to changing weather is to know what weather is coming. You can get weather information and training at the local ICRISAT or KARI weather stations in your area.

If you know that it will rain, or not rain, you can plan to plant or not to plant. This means your crops will grow better so you have more food and money.

#### **Get your market before you plant**

Find a market for your crop before you plant it. You can plan with your customer how much they want, and a price they will pay. If you make a **group** with your local farmers, you have more strength to get a better market.

Another way to get better markets and prices is to dry your **crop** – a dry vegetable can be stored until prices are good. A solar dryer is easy to make, and you can dry all the vegetables. Then, you can sell at any time and do not need to worry that your vegetables will rot.



### **Grow faster crops in dry areas**

If you farm in dry areas, you need to grow a crop which will be ready to harvest quickly. **Sorghum** is ready in 3-4 months, and does not need much rain. Maize takes longer and needs a lot of rain, so it is not good for dry areas.

Gadam sorghum will give you about 12 bags per acre, and the price is about 20/- per kg. Serendo gives you less bags per acre, and the price is about 8/- per kg. If you grow Gadam for a **farmer group** selling to breweries, you have a good market and people to help you grow.

You can also feed sorghum stover to animals.





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## Make your soil better

Better soil will help your crops when there is no rain, or too much rain, and will give you better harvests.

#### **Plant trees**

To hold the soil together, make it more fertile and give you shade, animal food and timber, you should **plant trees**. Some trees are good for these and do not need much water.

Grevillea and Moringa trees help the soil and also the leaves and pods can be fed to your animals when there is no grass. Melia is good for the soil and you can sell the wood for timber when the tree is 8 years old.

#### Feed your soil

Soil needs food to stay healthy. A cheap and easy way to feed your soil is to make **compost.** 

Dig a pit or make a flat place on your shamba. Put dry plants in first, and then add green plants. Then cover with dung and ash. Cover this with soil, and spray some water on top. Stamp on it. Make another layer with dry plants, wet plants, dung, ash and water until you have a heap 2-3 feet high.

Compost will be ready in 6 weeks – to test, put a stick in the middle. When it is hot, the compost is not ready. When it is cold, it is ready to use! Mix it with your soil whenever you are planting or topdressing.

This is what you need to make compost

## **Grow more food!**

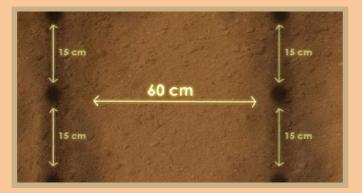
Push Pull technology protects maize and sorghum against Striga and Stalk Borer so you get more at harvest. This will feed your family and give you more to sell.

Plant desmodium between the maize rows. Its smell pushes stalk borer moths away from the maize. Desmodium also makes the soil better.

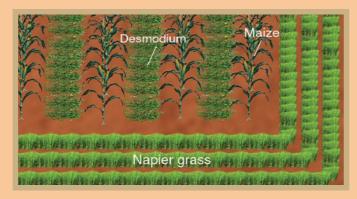
Plant Napier grass around the maize field; the moths go to the Napier and lay their eggs. The Napier grass makes a sticky liquid, which kills the moth eggs.

You can feed desmodium and Napier to your animals, but only cut them when the maize is ready. Use one bucket of desmodium cuttings mixed with three buckets of Napier cuttings.

Remember to cut all the pieces smaller than ½ an inch.



First, plant your maize.



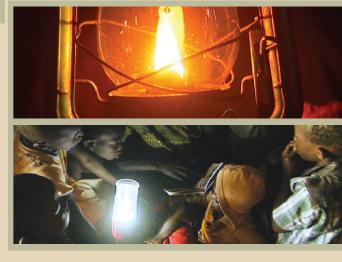
Plant desmodium between the maize, and Napier around the plot

## Spend less money with solar light

Kerosene lamps make fumes and smoke which are bad for your health. Kerosene is expensive. Solar lights are bright, and healthy. They are free to run because the sun charges them.

You can work better at night with solar lights, and they are safe. What could you do with the money you would save by having a solar light? Could you make more money by working at night?

For more information, sms 'SOLAR' to 30606



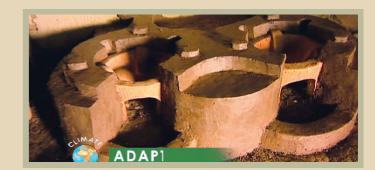
Solar lights are brighter and cheaper than kerosene

## Cook faster with a good jiko

Open fires use a lot of wood, cook slowly and make a lot of smoke.

Clay or metal jikos use less wood and cook faster, so you use less wood and your eyes and chest do not hurt from the smoke.

For more information, sms 'JIKO' to 30606



Good jikos use less wood, cook faster, make less smoke and can be put high up.

## Harvest water from your shamba and your roof

When it rains, you can catch the water for free. This saves time and money, and you can grow more. You can harvest water from your roof – use rust-proof gutters and tanks with good taps.

You can also harvest water from your shamba – dig trenches to catch the water and the soil across your shamba (not down the hill). If you dig the trenches around your trees, they will push the water to the trees so the trees grow better.

You can do the same thing with planting sorghum if you dig pits and trenches to catch the water around the sorghum plants.





## **Get more milk**

Cows make more milk if you feed them in a shed. They need a place to sleep with a roof, an open area for dung, and three troughs for feed, supplements and water.

Grow the food in your shamba and take it to the cow – make sure you cut the food up into small pieces. Cows need a lot of water to make milk.

