

# Series 3, Episode 9

Risper's Farm, KISUMU

This leaflet contains information on: cows (health, housing and feeding), maize farming, energy saving jikos & rainwater harvesting.

# **MAIZE PESTS AND DISEASES**

## Striga Weed

Striga is a purple flowering weed that is found in many maize fields all over Africa. Striga Weed can ruin 30 – 100 % of your maize. Striga weed is very easy to recognise – look for pretty purple flowers in your maize.

Striga is a parasitic weed. This means that the Striga lives off the maize roots, takes all the nutrients out of it, and kills the plant. Each Striga plant can produce over 50,000 seeds, which can stay in the soil for 20 years or until a new crop of maize or sorghum is planted. Once the new crop is planted the Striga can attach itself to the maize or sorghum again.



The purple flowers are called Striga Weed or Witch Weed and can damage your crops.



Stem Borer live in the maize stems and cause it to die by feeding off the living plant.

#### **Stem Borer**

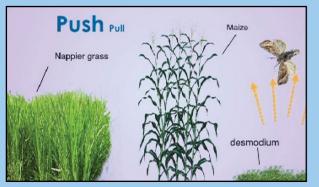
Stem Borer moths lay their eggs on the leaves of the maize, which then hatch and eat the stalk and leaves. Once the Stem Borer has eaten, there is no chance for the maize give a good harvest. The plant will be weak, easily broken and small in size. Stem Borer can ruin 20 - 40% of your crop and needs to be prevented.

If your shamba has both Stem Borer and Striga Weed you might not get any maize. You can use chemicals for Stem borer, but Push – Pull Technology is cheaper and better.

## **Push – Pull Technology**

This is a new way of growing stronger maize without using chemicals. It can increase food security, give you more to sell at market, improves the nutrients in the soil, reduces soil erosion and give you good fodder for your animals.

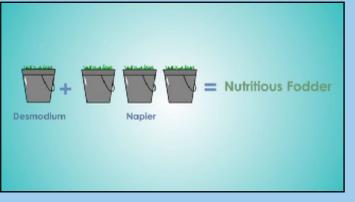
Mark your field with rows for maize. Between the maize, plant desmodium. Around the field, plant Napier grass at least 1 meter away from the maize. This stops borer moths returning to the maize instead of staying in the Napier.



The moths are attracted to the smell of the Napier grass and away from the maize.



Striga Weed and Stem Borer can ruin your crop.



#### Push Pull plants make good fodder.

The Desmodium gives off a smell that the Stem Borer moths do not like, pushing them away from the maize crop. The moths are attracted to the smell of the Napier grass around the maize. They lay their eggs on the Napier. Napier grass makes a sticky glue that kills the eggs.

The Desmodium also kills Striga weeds and stops Striga seeds growing.

You can feed the Napier and Desmodium to your animals. Mix 1 part Desmodium with 3 parts Napier. You can make hay bales and silage with Desmodium and Napier. This will give you more milk and meat to sell.

Use the cow, sheep or goat manure to feed your push pull plot.

Do not cut all the Desmodium until the maize is ready for harvest. Cut the Napier in small sections so that it still attracts the moths.

If you use Push Pull, you can increase your harvest up to 12 bags per acre.

FOR MORE INFORMATION, SMS 'PUSH-PULL' TO 30606



#### Worms

A cow with worms will be thin, and its hair will fall out eaily. Worm your cow with a dewormer every 3 months.

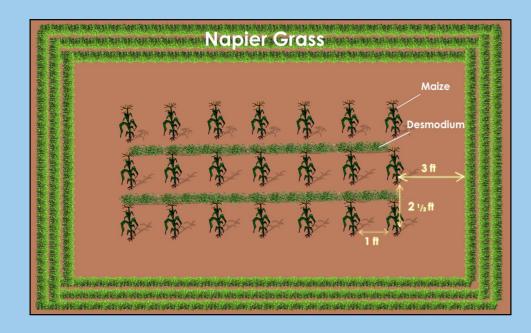
## Ticks

Ticks carry many diseases, and make your cow sick. An easy and safe way to prevent ticks on your shamba is to plant molasses grass around your cow shed. The molasses plant naturally repels ticks from the areas.

To plant the molasses grass, dig a furrow 1 - 2 feet away from the boma, and plant either molasses seeds from your local agro-vet or small splits in holes every 1 foot apart. With the small splits, make sure there is a root still attached. If your soil is missing any nutrients, add either some farmyard manure or DAP fertiliser to help the plants grow. Water well.



Use mineral licks to keep cows healthy.





A shed that fits two cows needs to be 12 feet x 10 feet.



Cooper's dewormer NEFLUK should be used every 3 months to stop worms.



Water the molasses plant well to give it a strong chance of growing.

## Feeding

A thin cow cannot produce much good meat or milk. A cow must always have a mixture of 75% (13 parts) fodder, 20% (4 parts) hard feeds and 5% (1 part) supplements. Cows need supplements to make milk, and a lot of water.

A good hard feed is UNGA Afya Meal. It provides a balanced mix to strengthen bones, help gain weight and increase production. Feed 1kg a day per cow in a trough.

Use a stock mineral lick to give your cow minerals for good health, regular heats, to help a cow bear a calf and for bull calves to produce good quality meat.

#### Shelter

A good strong shelter for your cows is important.

You can build it from any spare materials you find around your shamba, as long as you provide a trough for water, a trough for food, a roof and a decent floor.

The floor must be made from rubble or murram, and be on a slight slope for drainage to stop foot rot. Add grass to the floor for comfort and cleanliness – after use it can be made into compost!

For two cows the shelter needs to be 12 feet by 10 feet. Make sure all wood used is carefully painted with wood preserver to stop termites, which would cause it to fall down in a short time.

#### **RAINWATER HARVESTING**

Harvesting rainwater from your roof will save you time and money, and improve your health.

Fix gutters to all the roofs on your shamba and connect them to a tank. If you use a metal tank, paint it with rust proof paint.

The water can be used for anything from cooking, to drinking, to washing and on the shamba.

Catching rainwater means you can store it and use it throughout the dry season and should last until the next rains fall.

FOR MORE INFORMATION, SMS 'WATER HARVESTING' TO 30606



Guttering helps to store water for the dry season.



The lamp's light can last for 4 hours on the brightest setting.

#### **SOLAR LAMPS**

If your house is very dark at night it stops you and your children reading or studying Kerosene lamps give out bad light and dangerous fumes, and kerosene is expensive.

A solar light, like the one from d.Light, use the sun's energy to give you light and charge your phone. This light is stronger than kerosene, and is very safe. These lights are also waterproof and strong, and do not break easily After you have bought a lamp, it costs nothing to have light every day.

FOR MORE INFORMATION, SMS 'SOLAR' TO 30606

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