



# Series 7, Episode 6

Evans' Farm, Mwea, Kirinyaga, KENYA

*This leaflet contains information on: rice fertilizers, rice pests & diseases, mastitis in dairy cows, solar lights*

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

*For more information, SMS "FERTILIZER" to 30606*

## Rice Fertilizers

A soil test will tell you which fertilizers to add to your soil. By using the correct fertilizers, you can increase your yield by up to 35%. Mavuno Rice fertilizer contains primary nutrients, secondary nutrients and micronutrients. They all help the rice plants to grow well.

### Primary Nutrients

**Nitrogen (N)**, **Phosphorous (P)** and **Potassium (K)** are all needed for good growth. They are needed in relatively big amounts.

### Secondary Nutrients

**Calcium (Ca)**, **Magnesium (Mg)** and **Sulphur (S)**. They aid plant take up of nutrients from the soil. Calcium helps to stop acidity in the soil. These are also needed for plant growth but in smaller quantities.



### Apply Mavuno Rice Fertilizer at Planting

Plant with Mavuno for rice, mixing the fertilizer well in the soil. It has N,P,K & Ca, Mg, S, Zinc, Copper, Boron and Molybdenum.

You can buy it in 1kg, 10kg, 12.5kg, 25kg and 50kg bags. You will need 50kg for 1 acre.

### Topdress with Mavuno Super Granules

Transplant rice in a straight line 15-21 days after planting. Topdress with **Mavuno Super Granules** 7 days after transplanting.

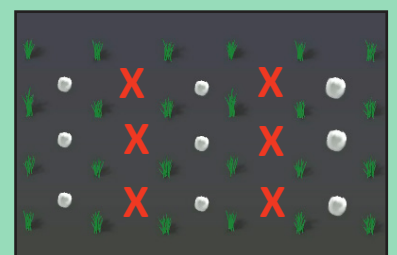


*You need 50 kg Mavuno Super Granules per acre.*



Use the **Fertilizer Deep Placement (FDP)** method. This will give you a 20% bigger yield and you will use 30% less fertilizer (compared to the normal broadcasting method).

With Fertilizer Deep Placement, a tool called a jabber or kangaroo is used to place the fertilizer granule 7cm below the surface of your paddy field. Place one Mavuno super granule between 4 plants in every second row. The granules need to be 7cm deep into the ground. If you don't have a jabber or kangaroo, you can place by hand.



**To make it easier to use the jabber, transplant your rice in rows. Use string to help you to make the rows straight.**



## Rice Pests and Diseases

### Weeds

Weeds take water and nutrients out of the soil. There will be less for your rice crop. You will get a lower yield. Weeds also hide pests and diseases.

### Weeding before transplanting

Clear grass and weeds before you plant with **Kick-Out** herbicide. You will save time and money on weeding.

Mix 200ml **Kick-Out** with 20 litres of water in a knapsack. Spray the weeds before you plant. Spray again before you transplant your rice.



### Weeding after transplanting

**D-Amine** from **Osho** is a selective herbicide. This means that it will kill weeds but not kill your growing rice. You can use it after transplanting your rice.

Mix 100ml of **D-Amine** in 20 litres of water in a knapsack. Spray the weeds as they start to emerge.



### Rice Blast

Rice blast is a fungal disease which can kill your crop. You may see spots and lesions (sometimes yellow) on the underside of the leaf.



**Control**, a fungicide from **Osho** Chemicals can be used to kill rice blast, and also to prevent it.

To prevent rice blast, mix 20g **Control** in 20 litres of water in a knapsack. Spray your rice plants a week after transplanting.

If your crop already has rice blast, mix 40g **Control** in 20 litres of water. Spray your rice plants when you first see the rice blast, then repeat 2 weeks later.



### Stem Borer

Stem Borer is a caterpillar that makes holes in the stems of your rice. If you cut open the stem you might see the caterpillar. Stem borers eat the rice stems and can destroy your crop.

To control Stem Borers, use both **Nimbecidine** and **Alpha Degree**.

**Nimbecidine** stays in your crop for a long time and does not affect the environment. Alpha Degree kills Stem Borers quickly.



Use both products together to stop the stem borers from becoming resistant. Resistant stem borers will not be killed by chemicals.

Mix 50ml **Nimbecidine** in 20 litres of water in a knapsack. Add 25ml **Alpha Degree** to the same knapsack. Spray your rice crop.

Always wear protective clothing and equipment when using chemicals. This includes gum boots, overalls/dustcoat, gloves, goggles and a face mask.



## Mastitis in Dairy Cows

Mastitis is an infection that attacks the udder. It is caused by bacteria. The bacteria grow fast in places that are not clean. Signs of mastitis include:

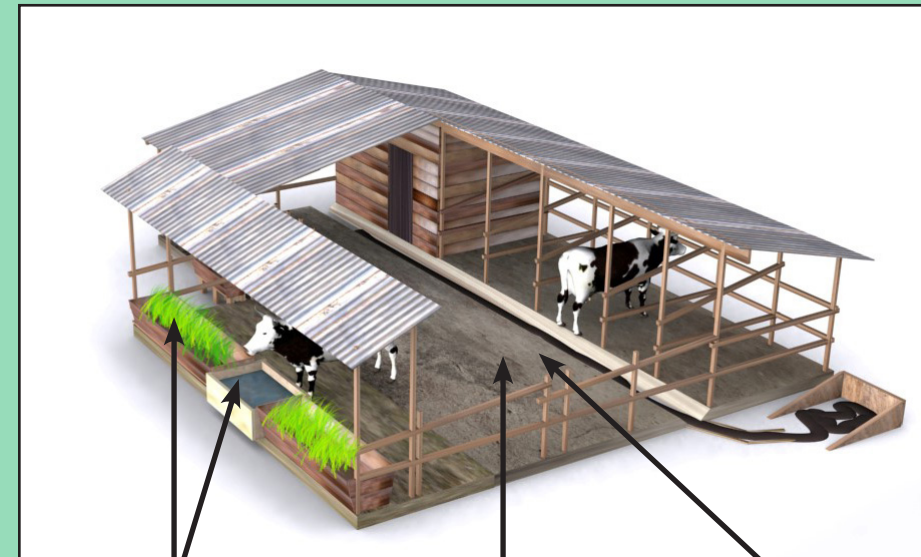
Inflammation of the udder.

Milk may be bloody or have clots.

Unusual low milk production.

You can prevent mastitis by having good hygiene in your cow shed.

### Cow Shed Hygiene



Make sure the feeds and water are always fresh.

A concrete floor is easy to clean. It also stops your cow from slipping.

A sloping floor will help slurry and water drain away.

Disinfect your cow shed every 7 days.



Wash the floor of the cow shed and leave to dry naturally. Then mix 20 ml **Kupacide** in 10 litres of water. Spray on to the floor and walls of your cow shed.

### Milking Hygiene

Before you milk your cow, clean the udder very well. Mix 1 tablespoon **Mastrite Udder Wash** with 4.5 litres of warm water. Use separate cloths for each cow. Apply **Milking Salve**. This helps the udder to soften and keeps bacteria away.

Milk your cow by gently squeezing the teats. Do not pull the teats. Make sure all the milk is out of the udder. This should take at least 8 minutes of milking.



After milking, you need to dip the teats. Mix 1 part **Mastrite Teat Dip** with 2 parts clean water. Use a teat dip cup to dip the teats.

It takes at least 10 minutes for teats to close after milking. If the cow lies down before the teats are closed, bacteria can get into the teat and cause mastitis. Keep your cow standing by giving it some food.



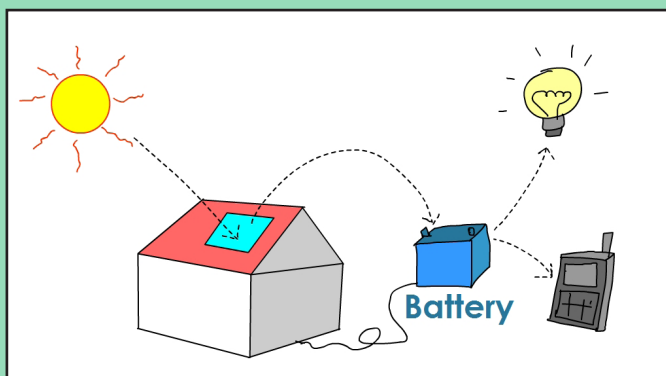
Use **Bactergent** to wash the utensils and equipment after milking. This will kill bacteria that causes mastitis. Mix 25 ml of **Bactergent** with 10 litres of water.





# Solar Lights

For more information, SMS "SOLAR" to 30606



Light up your home and business with the d.light solar lighting system.

The d.light system uses light from the sun to charge a battery. The battery can then power 3 lights and charge a torch, radio and even your mobile phone!



*D30 solar system from d.light. You will get 5-17 hours of light per charge. The lights have 2 brightness settings to choose from.*

## Advantages of the D30 system:

- Your business does not have to stop after dark
- Your children can do their homework in the evening
- You can charge your phone at home – for free!
- You can listen to the radio
- Use the torch to check on your animals at night
- It is easy to install and the lights can be in different rooms. So you can light the kitchen, living room and bedroom at the same time!
- No more kerosene! Kerosene is expensive and the fumes are bad for your eyes and health.

## Does the D30 system cost a lot of money?

No. You can pay for your D30 system in one go, or you can pay 40/- per day for 1 year. The system comes with a 2 year warranty, with a 1 year warranty for the torch and radio. Buy d.light systems countrywide.

SMS **d.light** on 21555 or call 0800 721110

Think how much money you will save on kerosene!

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