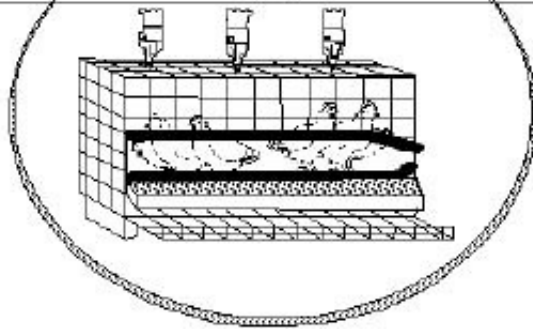


Practical egg production



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INTRODUCTION

As a result of the high cost of meat, people are constantly looking for a cheaper source of protein. Eggs provide a valuable yet affordable source of high quality protein and

vitamins required for normal growth, especially for children.

This guide will show you how to build, manage and maintain your own affordable household egg production unit on a small scale. Later on you can increase the size of your unit in order to sell eggs in your community, if the demand for eggs is big enough.

The information given is based on poultry production in the warmer to hot areas of South Africa.



WHY KEEP HENS?

- o You can provide eggs for your family by keeping 9 to 12 hens.
- o Each hen will lay up to 6 eggs per week. In this way you can even start your own small business.



o If you have 9 hens, they will lay 8 to 9 eggs per day. You will need to sell 4 eggs per day to pay for the feed of the hens. The remaining eggs can be used for household consumption.

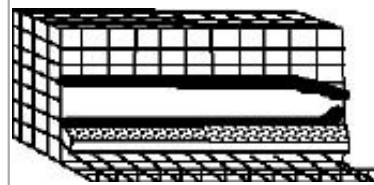
o Eggs provide a valuable yet affordable source of high quality protein and vitamins required for normal growth, especially for children, when meat is too expensive or is unavailable.



o If there is a demand for eggs in your area, you could expand and sell more of the eggs.

THE CAGE

It is best to keep the hens in a cage.



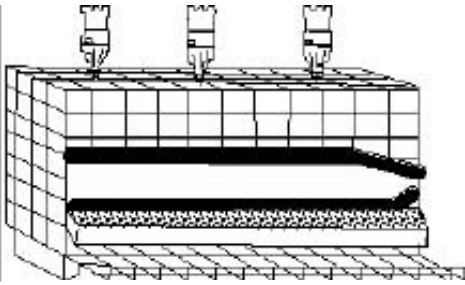
This means that:

- ◆ the hens can be kept in a small space
- ◆ the hens are kept in a cleaner environment

- ◆ the eggs are not broken easily
- ◆ the eggs stay clean
- ◆ the eggs can be collected easily
- ◆ the hens get fewer diseases
- ◆ there is less chance of hens being stolen
- ◆ they need very little care
- ◆ it is very easy to keep the cage clean as the manure falls through the mesh floor
- ◆ you can easily see when drinking water is finished
- ◆ feed is not wasted easily
- ◆ it makes good record keeping possible.

o You can buy the cage or make your own. It is, however, cheaper to make the cage yourself (see instructions on page 11).

o The cage should not stand on the ground to ensure that the manure falls through.



- o Put the cage on poles, bricks or fasten it to the wall of a house, hut, shed or hang it from ropes tied to poles.

- o The cage should be protected from overhead sun and rain by an overhang or roof (eg thatch).

- o In hot climates keep 9 hens in a cage 3 in each compartment.

(In this way there is enough space for limited movement, and they can all get to the feed trough at once)

- o In cold climates, 4 hens can be kept in 1 compartment (total of 12), but then their movement is very limited.

THE HENS

- o You can buy day-old chicks and rear them, but this is expensive and often the chicks die if they do not receive good care..

o It is better to buy young hens, called point-of-lay pullets (18-19 weeks old) which are ready to start laying eggs.



o The hens you buy must be of very good quality and be fully vaccinated against all known poultry diseases.

o The best layer breeds to buy are: Amberlink or Hy-line laying hens these hens will start laying within 2 weeks after being bought (20_21 weeks of age).

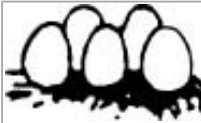
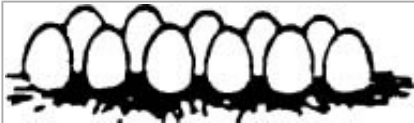
o First (pullet) eggs are small, but gradually become larger after about 2 months.

The number of eggs laid also peaks halfway through the year and then starts dropping.

o The hens should be kept for 1 year and then sold as cull hens.

If the feed is very cheap, the hens can be kept up to 2 years

o If you keep the hens for longer than 1 year, they will start laying fewer eggs until they stop altogether.



They will however eat the same amount of food so

They will, however, eat the same amount of food, so profits become less and the enterprise eventually uneconomical.

- o Before selling the hens for slaughter, you must order new pullets. Do this at least 4 months ahead of time.

- o You can only start selling your old hens once the new hens are in production, especially if you have standing orders with clients and do not want to disappoint them.



- o The money made from the old hens will pay for the new hens.

THE EGGS

- o In order for the hens to lay as many eggs as possible, they must have enough light.

- o They need 16 hours of light every day.



- o This can be done easily if you have electricity, because you can put the lights on before sunrise and let them stay on for some hours after sunset.

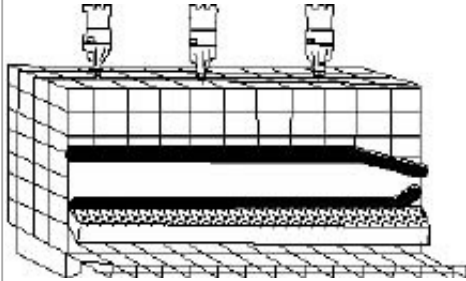
- o If you do not have electricity, the hens will not lay as

many eggs as in artificial light.

o To get maximum egg production without electricity, place your cage outside where the hens can make use of natural light.



o Do not put the cage in direct sunlight the hens will get too hot and die.



o With 16 hours of light every day, each hen will lay about 280 eggs in 1 year and without extra light they will lay about 200 eggs.

FEED

o To lay well, the hens must get the best possible feed.

o Hens need plenty of calcium in their diets to lay eggs with hard, strong shells.

Pellets

o It is best to buy a good commercial feed such as laying mash/pellets.

The mash is specially formulated to provide all the nutrients they need in the correct quantities.

You can buy this feed at most cooperatives.



Laying mash



o Feed must be available in the trough at all times, as well as cool, fresh water in the bottles.



Prevent wastage, do not overfill the trough

o Each hen will eat 120 to 150 g of feed per day (some will be wasted, landing on the floor).

o One bag of feed (50 kg) will last approximately 1 month. ♦ make sure that you have bought enough feed

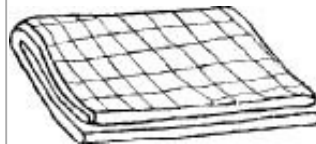
(2 months supply) before the hens arrive.

o Make sure that you have a permanent supply of fresh drinking water for the hens.

MANURE

Fresh manure can be covered with a layer of sawdust or dried leaves, grass or any other dry vegetation every day. It will become good compost if turned regularly. This method also helps to remove bad smells.

The manure can be sold in feed bags as organic fertiliser or compost for vegetable gardens. You can also use it for your own garden or vegetable garden or lawn or cattle pastures.



Old feed bags

HEALTH AND DISEASE

o If you buy point-of-lay pullets from a reliable

producer, they will be fully vaccinated against all major diseases ◆no need for you to buy vaccines.



o To make sure that the hens adapt quickly to their new home, give them **Stresspack** in their drinking water when they arrive at your home.

o If there is a sudden serious outbreak or epidemic of a specific poultry disease in your area (eg Newcastle disease), vaccinate all hens against the disease immediately. If the hens get lice, treat them with **Karbadust powder**.

o Keep wild birds away from the hens and their feed, to prevent the spread of the disease to the hens.

o Make sure that the hens AT ALL TIMES:









- have clean, fresh, cool water (wash water bottles once a month)
- have enough fresh feed (throw wet, mouldy or rotten feed away)
- are kept under shelter away from the sun, rain and cold.

HOW TO MAKE YOUR OWN

CAGE

- o Be sure to make your cage strong enough to carry 9 to 12 hens.
- o The size of the cage must be 120 cm long by 70 cm wide by 45 cm high.
- o You can build it from galvanised welded mesh, cane, bamboo or wattle sticks.
- o The floor of the cage must be made of welded mesh so that the hens' droppings will fall through. This ensures that the floor on which they stand stays clean.

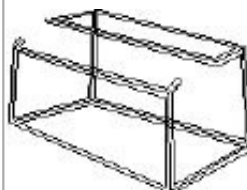
The tools you will need

 <p>Measuring tape</p>	 <p>Wire cutter</p>	 <p>Pliers</p>
 <p>Tin-snips</p>	 <p>Hacksaw</p>	 <p>Hammer</p>
 <p>Small spanner</p>		 <p>Marking pen</p>

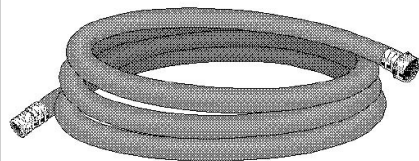
Material you will need



Galvanised welded mesh
(type = 25 x 50 mm)



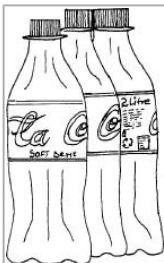
Metal frame



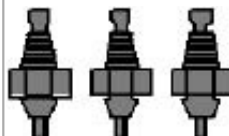
Hose pipe old, secondhand
or damaged pipe



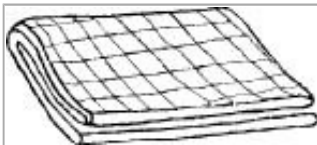
Gutters



2 l plastic cold drink bottles



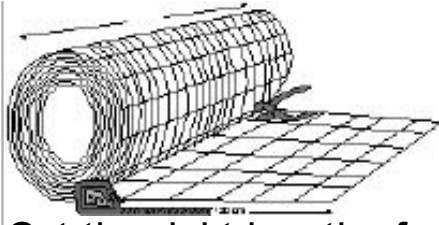
3 Drinking nipples



Old feed bags

CAGE

Measure and cut the welded mesh



Cut the right length of mesh, 180 x 120 cm, and bend it until flat

Get your frame ready



Attach the mesh to the frame with pieces of wire (secure tightly)

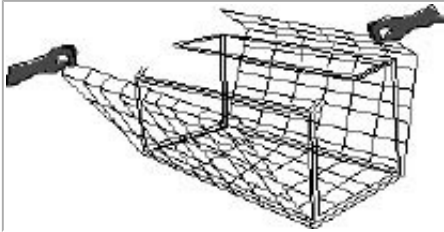
Bend the mesh around the frame



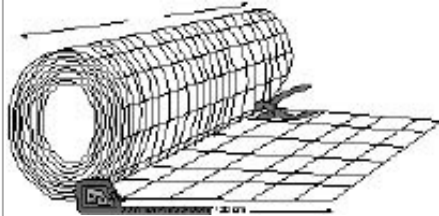
Use a hammer to flatten the mesh and keep the edges and corners flat and sharp

Cut the binding wires

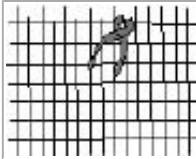
Separate the mesh from the frame after cutting the binding wires



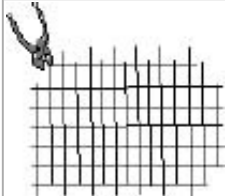
Measure and cut 4 side panels



Cut the 4 panels 55 x 45 cm,
2 for inside and 2 for outside



Cut every second tip off for both inside panels

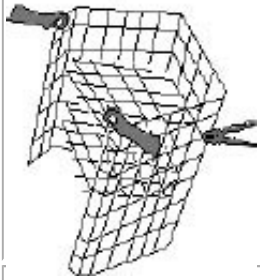


Cut 3 corners off for the 2 inside panels

Cut every second tip off on the 2 outside panels

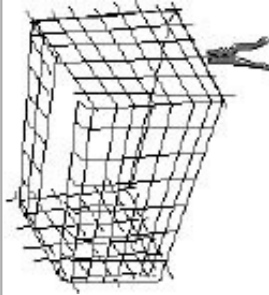


Fasten the panels



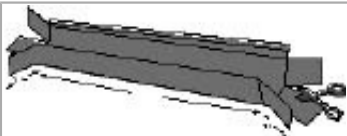
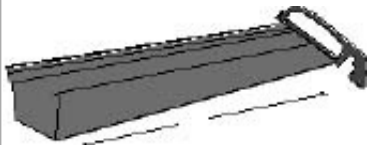
Use pliers to fasten the 2
inside panels to form 3
equally sized compartments

Fasten the 2 outside panels.
Neaten, cut off or bend all
sharp points or edges



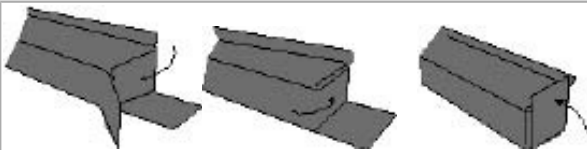
Feeder

Use a hacksaw to
cut a piece of
gutter, 140 cm
long



Mark off 10 cm at each end of the
gutter and cut along the bends

Fold each piece
inward




Neaten and flatten by using the



hammer and pliers. Remove sharp edges

Lastly, make a small hole on each end for securing the feeder to the cage with wire

Drinkers

Punch holes in each bottle cap using a nail and hammer  do not remove the plastic inner lining of the cap



Use a hand drill to enlarge the holes so that the nipple will fit tightly

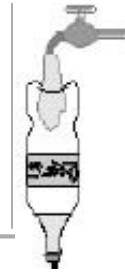
Screw in the nipple until it fits well



Cut the bottom of the bottle using a knife or a pair of scissors

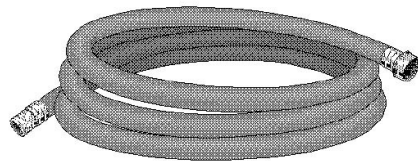
Screw the caps onto the bottles and fill each bottle with water to test for leaks. If the cap leaks, make a new one or seal the faulty one with silicone sealant.

Attach the bottles to the cage in the centre of each compartment. Use pliers to bend the mesh slightly for the bottle top to fit in tightly



Plastic pipe protection

Prevent injury to the hens' necks by making sure that the pipe used is smooth



Cut 2 lengths (200 x 120 cm) of old plastic irrigation pipe or hosepipe

Slit both pipes open along their length



Fit one pipe over the back edge of the gutter and the other one over the top of the cage opening

Secure the pipes with wire or cable ties. Make sure that any sharp ends of the ties or wire are cut off short and are facing away from the hens' necks

Your cage is now ready

When putting the cage into position, remember to slant it forward slightly so that the eggs, once laid, can roll down

the slope gently into the egg tray.
Test this before securing the cage.

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For further information contact	
Michelle Moller Department of Agriculture Nelspruit Mpumalanga	Thierry H. Smeets Funda Mlimi Training Centre Department of Agriculture Mpumalanga ?



