



BROODING MANAGEMENT OF CHICKS

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INTRODUCTION



- Brooding is art and science of rearing chicks up to the age of 3-5wks.
- To Prevent cold shock.
- Hypothalamus is not well developed.
- 2 systems of brooding.
 1. Hot room brooding- central heating device is used.
 2. Cold room brooding- heating the area only under brooder canopy. Used mostly in tropical countries for both layers and broilers

CANOPY BROODING



- Use of Incandescent light.
- Hover made up off metal of bamboo basket
- 1-2 watt/chick light requirement
- A metal hoover or bamboo basket of diameter 90 cm for 250 chicks.
- Brooder/chick guard- height 30 cm
- Encircles the hover at a distance of 30-60 cm.
- Chick guard- GI pipe or metal

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- Circles enlarged at 2nd week.
- During 2nd week, chick guard is replaced to corner of the pen.
- By 3rd week, it is removed entirely.

INFRARED BROODING



- 150 and 250 watt infrared bulbs are available for 100-250 chicks.
- The infrared bulb should be hung 25-30 cm above the litter floor.
- Infrared light has germicidal effect.
- Infrared light helps in the synthesis of Vit-D.
- It reduces cannibalism.

BATTERY BROODING



- More than 60% of all commercial layers are brooded and reared in cages.
- Coccidiosis is less frequent.
- It consists of 4-5 batteries each having a heating space comprising $1/4^{\text{th}}$ of total area.



Figure 1.--An example of one type of battery brooder.

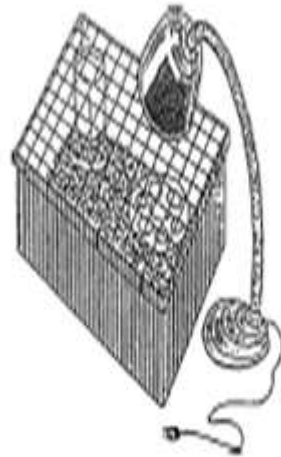
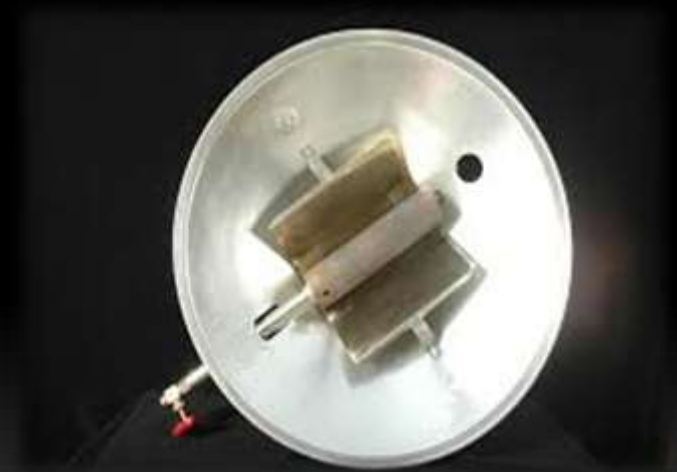
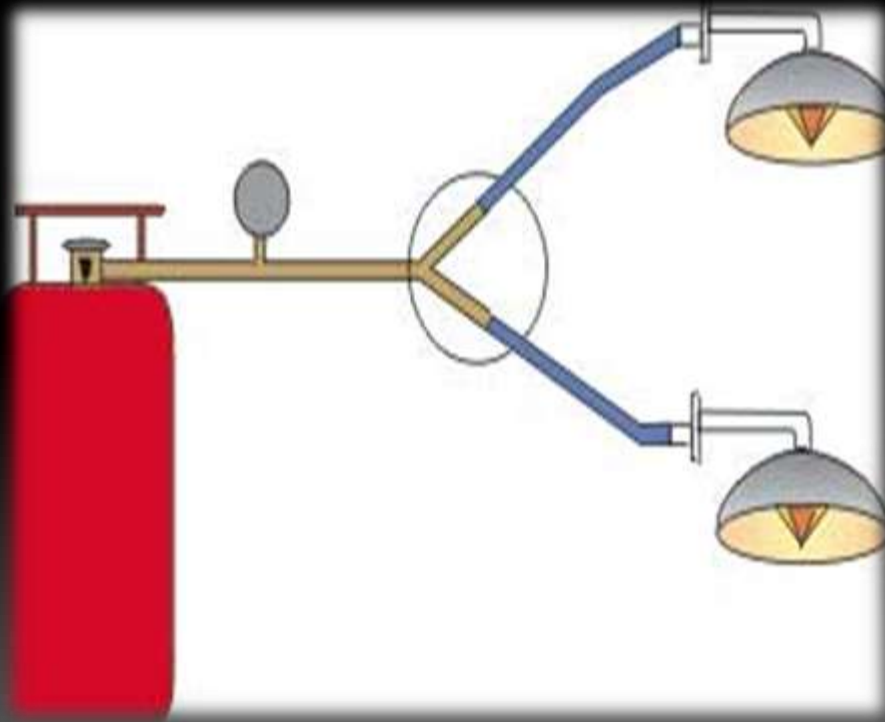


Figure 2.--Setup to brood a few chicks in a cardboard box or wire cage.

- The heating unit has electric heater having a thermostat.
- For the first 3 days paper is spread on the mesh flooring.

BROODING BY THE USE OF LPG GAS



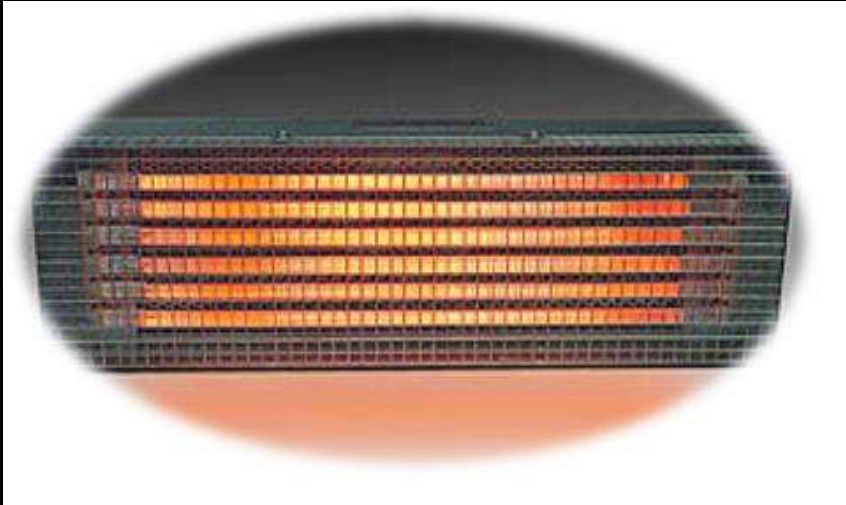


KEROSENE BROODER



CHARCOAL BROODER

- Flat hover/Reflector-



- Canopy type hover`



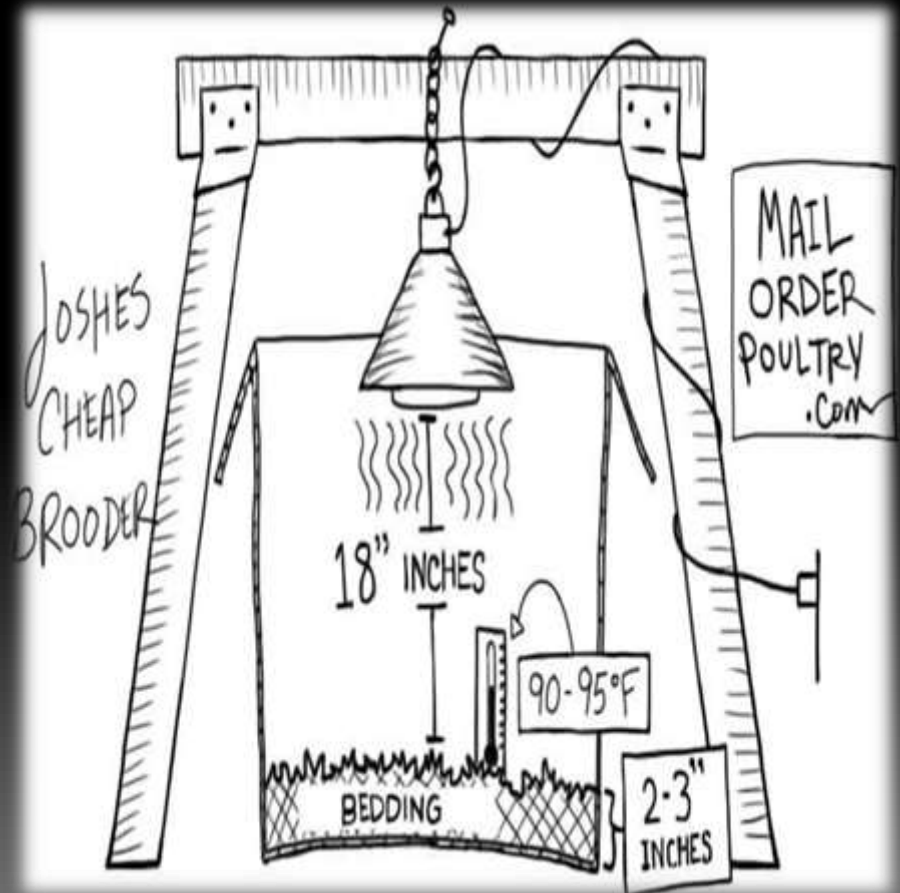
BROODER/CHICK GUARD



- 5 feet diameter chick guard should be used.
- Height of the brooder should not be more than 1.5feet.

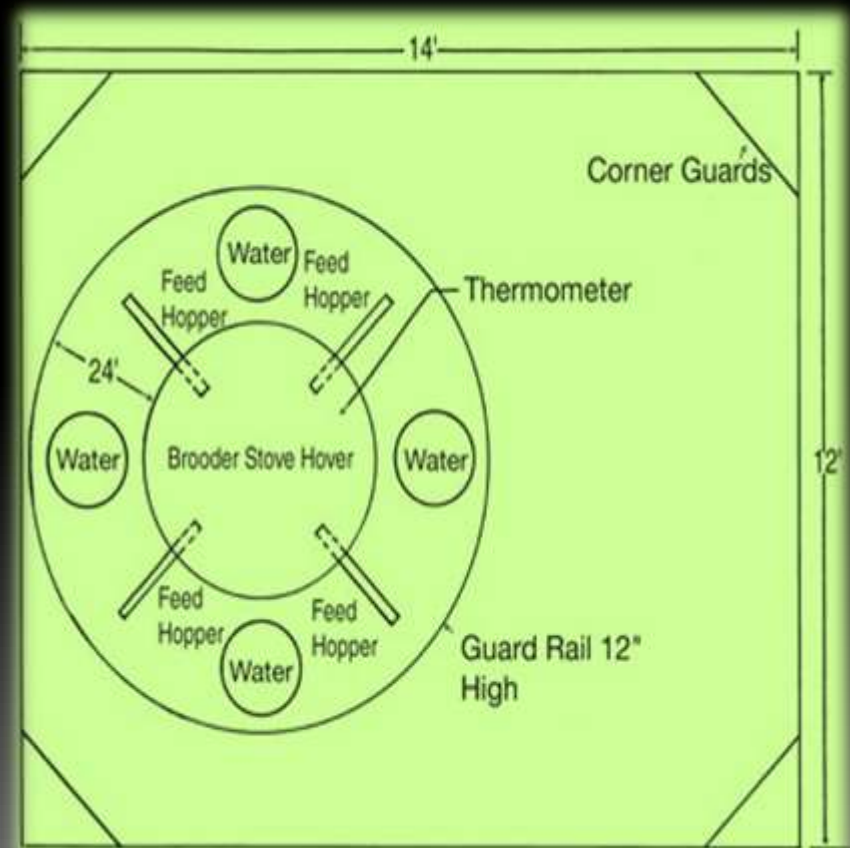
PREPARATION OF BROODER HOUSE

- 3-4 weeks interval should be given between two successive batches.
- 5 feet diameter chick guard can accommodate 200-250 chicks.
- Litter material should be spread about 2" height.



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- Feeder and waterer should be arranged alternatively like cartwheel manner.
- The brooder heating source should be switched on several hours before the arrival of chicks
- Ground maize should be spread over the old news paper for 1 to 2 days



Contd....



- Electrolyte solution, glucose and vitamin in the drinking water is provided for first 2-3 days.
- Brooder temperature 90-95 F is maintained in first week and decreases 5 F per every week until the room temperature

Chick Behavior Under Different Brooding Conditions (Temperatures)



Too Drafty
and/or
Too Cold



Too Cold



Too Hot



Correct



- Old news paper should be removed after 3 days of brooding.
- 24 hr light for 0-8 wks.



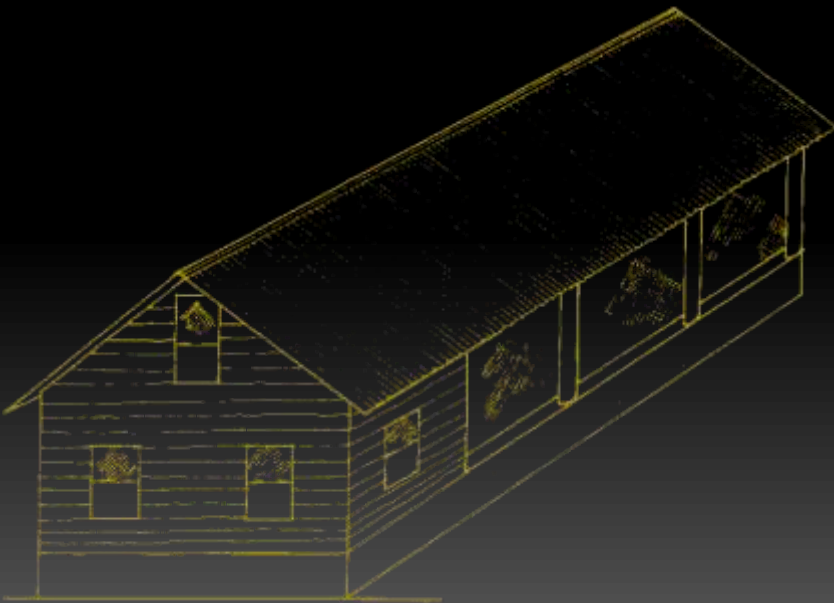
first and second day



3rd to 7th day

LOCATION OF BROODER HOUSE

Distance between brooder house and other poultry houses should not be more than 100 m.



ALL-IN-ALL-OUT SYSTEM OF REARING



- All the chicks should be in same age groups.
- The age difference between the oldest and youngest ones should not more than 7days.



- Washing of the brooding cage



Feeding space

- 2.5cm/chick- 0 to 2 wks
- 4.5cm/chick- 2 to 6 wks

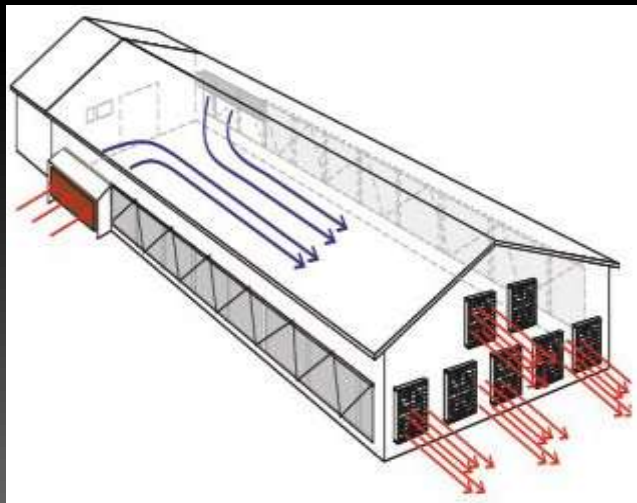
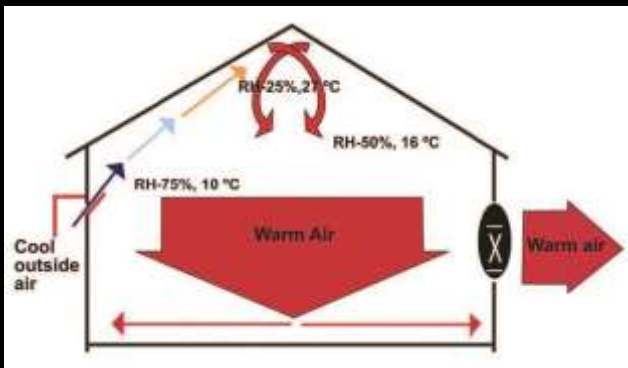
Watering space

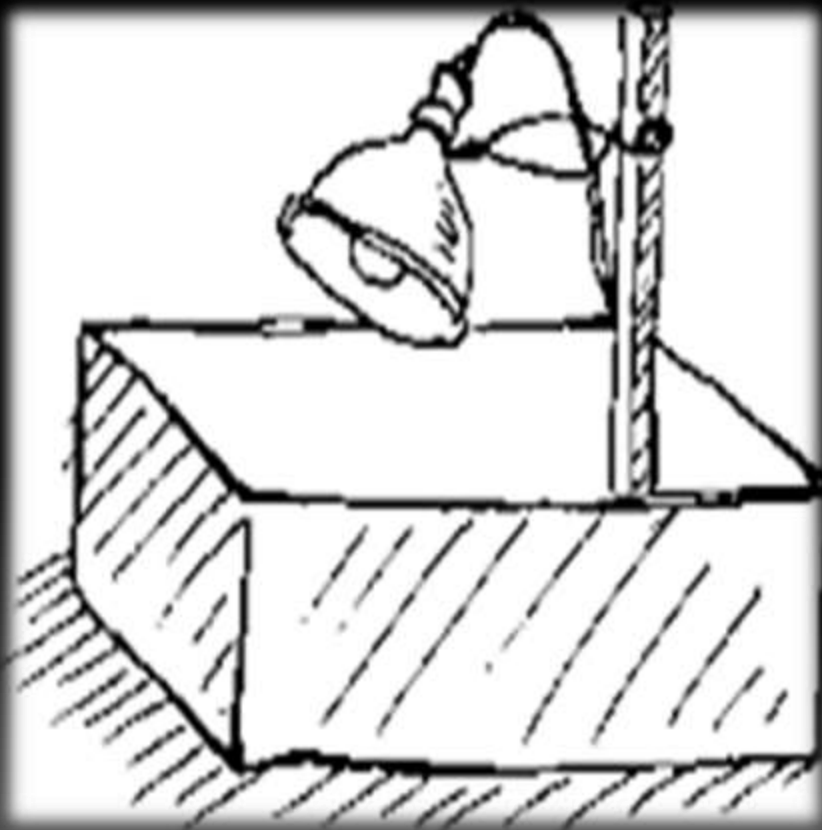
- 0.6cm/chick- 0 to 2 wks
- 1.3cm/chick- 2 to 6 wks



- Concentration Should not be more than 0.01%

VENTILATION





- Hover space requirement is 45-60 square cm per chick



- Up to 8 wks, floor space requirement in layer chicks is 700 square cm.

DEBEAKING



- Done in chicks at the age of 1 day to 6 wks.
- Repeated again at about 16 wks of age.
- Upper mandible beak to be cut at about 1/3rd distance

DUBBING



- Removal of comb
- Done in day old chicks.
- Done in breeds having larger combs.

VACCINATION STRESS



- Feed intake decreases.
- Increase the brooding temperature to keep comfortable

COCCIDIOSIS

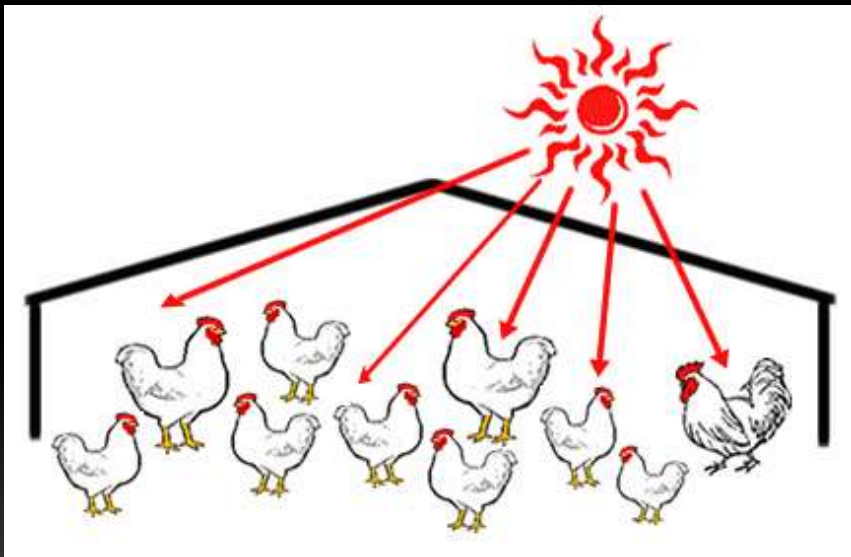


- Affects mostly younger birds.
- Coccidiostat to be added in the feed.

UNABSORBED YOLK SAC



- Feeding immediately after hatching causes this condition.
- The presence of yolk during the first 14 days should not be considered as importance.
- Overheating can be problem for lower yolk absorption.



HEAT STRESS



COLD STRESS

CHICK MORTALITY



More pronounced in
first week.



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