

Lecture 4

BROODING AND CHICK MANAGEMENT

Pre –Brooding Management of chicks

This is all the management practices before brooding or before receiving the chicks in other sense various measures, which we provide in preparation for new-hatched chicks arriving at our farm. Poultry house sanitation begins with a clean sanitized house prepared well in advance of arrival of chicks. Each house should remain empty at least two weeks after, it is disinfected and fumigated. The effectiveness of sanitizing a house is depended upon the extent of the cleaning before the germicide is applied. This cleaning helps to control disease because,

- It reduces number of pathogenic organisms.
- Remove material that helps in multiplication of pathogens.
- Expose surface to the disinfectant and fumigants.

In the process of pre-brooding management following measures are generally considered for taking good results. Most important factors, is the selection of area in the shed. The house should be cleaned and disinfected, immediate preparation is necessary so that the building may lie empty for one to two weeks prior to placing new chicks in them. All equipment must be washed with KMnO_4 and disinfected .The equipment should be moved outside the house in sun an area inside the fenced enclosure to complete the cleaning process. The equipment should be moved back into the house. Disinfection and fumigation will kill most of the disease-producing organisms. An empty house will break the life cycle of pathogens. During this period done all the repairing work like repairing work of gas pipes, brooders, electrical equipments, windows and doors.

Check all equipment to see that it is working properly. Operate brooder stoves for at least 24 hours before the chicks arrive. This will warm the house, dry the litter and allow you to check the accuracy of the brooder control and thermostat. When chicks arrive, be ready for them and place them near the waterers.

Brooding of Chicks

Brooding is the care of the chick from one day old to six weeks of age. It consists primarily of the provision of heat, air, water and feed. It is the efficient combination of these factors that determines the level of physical and physiological development and the mortality of the chicks. The mortality of the chicks during this period should normally not exceed **5%**.

Set the brooder area temperature at about 95 degrees Fahrenheit (35°C) in cold weather and 90 degrees (32°C) in hot weather. Make sure the temperature is adequate before placing the chicks under the hover. Maintain the room temperature for day-old chicks in a cold-room system at a minimum of 65°F; where an economical source of fuel or a well-insulated house is available, it is desirable to maintain a temperature of about 75°F.

Place the chicks under the hovers as soon as possible after they arrive. Keep chicks comfortable. Their actions provide a good guide to their comfort. Chicks crowd together near heat when they are too cold, and they pant and gasp (often at the outer edge near the chick guard ring) when overheated. Check the chicks periodically to make final temperature adjustments.

Follow the brooder manufacturer's recommendations on temperatures for operating the brooder. In general, drop the temperature 5 degrees each week until the chicks are five weeks old; then maintain the temperature at 70 degrees.

The cardboard chick guard ring keeps the chicks near the source of heat the first week. Make sure, however, that there is enough room within the ring area for the chicks to move away from the heat in case they become overheated. A diameter of 6 feet should provide plenty of space for 50 chicks. In cold weather with larger brooder stove operations, place the guard on the floor 2 feet from the other edge of the brooder. Move the guard farther away from heat every day, and remove it after about a week, or when it is no longer needed.

Keep track of the temperature at chick level by hanging a thermometer inside the cardboard ring at the same height as the chicks about 3 inches inside the outer edge of the hover. Check the temperature under the hover twice daily during the first week. Continue to check it twice a day as long as the chicks need heat. Adjust the height of the lamp to adjust the temperature. Raising the lamp a few inches a week should be about right. Measuring of the ambient air temperature under infrared lamps is not a direct measurement of the heat that the chicks will feel. Watch the chicks' reactions and adjust the height of the lamp.

Provide heat until chicks are well feathered. Birds are more likely to develop respiratory troubles if heat is removed too early. Do not crowd chicks. Larger breeds and older birds require more space. Birds may pile up or smother if they do not have enough space or if they are frightened. For summer brooding, protect chicks against temperatures above 95°F. Keep them comfortable.

Some people cover litter for the first few days of brooding. If you do, use rough, crinkled paper. Smooth paper causes chicks to slip and develop straddled legs. Moulds will develop if paper is left on the litter more than three or four days. Remove guard after seven days.

Keep litter as dry as possible. Whenever necessary, stir the litter to keep it from packing. Move feeders and waterers to new locations to help prevent the development of wet areas. As wet spots develop, remove the wet and "caked over" litter and add new, dry material.

Provide plenty of fresh air for chicks. Do not close up the brooder house to keep it warm. Chicks need fresh air, and air also carries moisture out of the house. The floor will be drier and the chicks healthier when proper ventilation is provided. A 15-watt bulb for each 200 square feet of floor area should be kept on the chicks at night for the first week.

Vaccination

Vaccination is an effective means to prevent and/or reduce the adverse effects of specific diseases in poultry.

Marek's disease vaccine is usually administered to chickens at the hatchery on the day of hatch. It is given subcutaneously (under the skin) at the back of the neck. It is best to order chicks already vaccinated at the hatchery.

Chicks are often vaccinated at the hatchery against Newcastle disease and infectious bronchitis with a combination vaccine. The combination Newcastle-Infectious Bronchitis vaccine can also be given at 10-35 days. The vaccine can be administered via the drinking water, intraocular route or intranasal route.

Hatchery By-Products

Hatchery by-products include egg shell, dead chicks, un-saleable chicks and un-hatched incubator eggs. Several metric tonnes of the by-products are usually produced annually. They constitute nuisance to the hatchery industry because of the problem of disposal and also result in economic losses to the industry. However they could be processed into hatchery waste meal and incorporated in animal feed as protein source.