



# BROILER GUIDE

**Feed**master

Your Quality Solution

## Broiler production introduction

Broilers are chickens that are specifically bred and raised for their meat. The goal for any broiler farmer is to successfully raise a day old chick to a market ready chicken in the shortest amount of time. Within this period the birds will likely meet many challenges that will inhibit their growth and affect their production. This is why broiler production systems require management to have high levels of responsiveness and availability of information.

To be a successful broiler farmer at any level, one has to master the day-to-day management tasks of the broiler's life. The most significant management task would be FEED. Feed makes up 65-70% of the total cost of production. Therefore we cannot over emphasize the importance of a good quality, well balanced formulated feed for the best possible production results.

This is why we at Feedmaster only use quality raw materials, formulated by qualified nutritionists to supply the poultry farmer with a quality solution in feed.

## Placement of chicks

- Stocking density should be adapted with temperature changes. In the summer the stocking rate (10 birds per m<sup>2</sup>) would be lower than in the winter (12 birds per m<sup>2</sup>).
- It is important that the chicken house should be cleaned and disinfected at least 10-12 days before the placement of the new chicks.
- Pre-heat the floor 2 days before chick placement. (Floor temperature 32 °C)
- Feed and water should also be placed the day before to ensure that it would be room temperature and available when the chicks are placed.
- Use paper to cover 50% of brooding area and place feed on the paper to stimulate intake in the first 24 hours.
- Weigh some of the chicks to get a starting weight.

## Post-placement chick checks

1. **Chick-check 1** 4/6 hours after placement: Test the temperature of the feet of the chicks against your cheek. If cold, the pre-heating was not done correctly and the farmer should re-evaluate his pre-heating procedures.

Results of cold floor temperature:

- Poor early feed intake
- Poor growth
- Poor uniformity

2. **Chick-check 2** 24 hours post placement: This check is called a crop check. The reason for this check is to confirm that the chicks found the placement of feed and water.
- By this time a minimum of 95% of the crops should feel soft and pliable, indicating chicks have successfully located feed and water.
  - Hard crop – chicks have not found adequate water. Check water supply immediately.
  - Swollen and distended crop - chicks have located water but insufficient feed. Check feed supply immediately.

Daily checks should be made through out the cycle:

- Check if there are cold spots and draughts in the house.
- Check if the ventilation is correct - no build up of ammonia.
- Check if the drinkers and feeders are at the correct height and if there are enough of them for the amount of birds.
- Check for wet bedding or too dry bedding.
- Keep notes of all dead birds removed.



# Brooding

## Why brooding?

During the first 14 days a chick cannot properly control its own body temperature. This is why it is so important to manage their environmental temperature. The following would be improved by good brooding practices. The development of the following would be improved by good brooding practices.

1. The skeletal structure.
2. The cardiovascular system.
3. Appetite and water consumption.
4. Health and immune system.
5. Minimize stress.

All these improvements will help accelerate the rate of growth of the chicks.



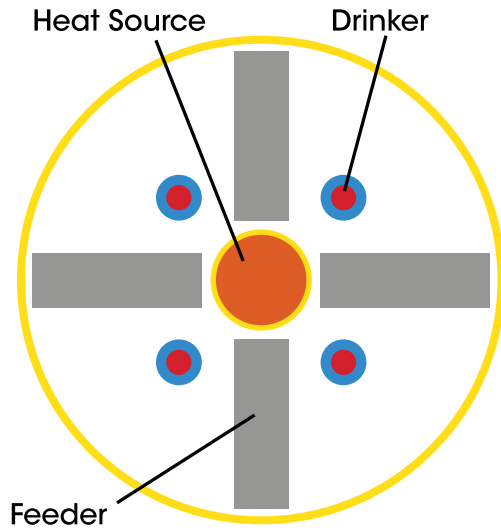
GAS BROODER



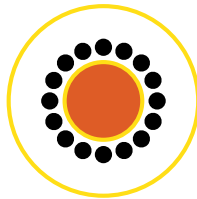
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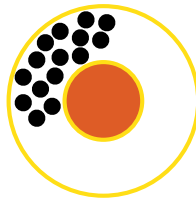
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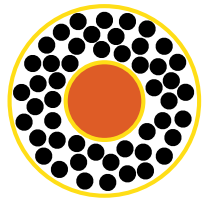
Too Hot



Too Cold



Draught



Comfortable

## Litter/Bedding

Important functions of litter include the ability

- To absorb moisture.
- To dilute excreta, thus minimizing bird to manure contact.
- To provide an insulation from cold floor temperatures.

Litter Type	Minimum depth or volume
Wood shavings	2.5cm
Dry sawdust	2.5cm
Chopped straw	1kg/m <sup>2</sup>
Sunflower hulls	5cm
Rice hulls	5cm

## Lighting program and it's advantages

- A period of darkness is a natural requirement for all animals.
- Better feed conversion because of energy conserved during resting.
- Reduce mortality rate and skeletal defects.
- Stimulates the production of melatonin. Melatonin is important in the development of the immune system.

### Lighting program as by the Cobb

Aged (Days)	Hours dark
0	0
1	1
100-160 grams	9
22	8
23	7
24	6
5 days before slaughter	5
4 days before slaughter	4
3 days before slaughter	3
2 days before slaughter	2
1 day before slaughter	1



## Temperature management

Temperature management is one of the most important tasks, especially during the brooding period. Because any stress chicks experience during this period, will affect the growth and development in other phases.

The optimal temperatures are as follow:

- Environmental (Air) temperature 32-33 °C
- Floor temperature 32 °C
- Directly underneath brooders 40.5 °C

### Temperatures as by the Cobb

Aged (Days)	Relative Humidity %	Temperature °C for chicks from 30 week old parent flocks or younger	Temperature °C for chicks from 30 week old parent flocks or older
0	30-50	34	33
7	40-60	31	30
14	40-60	27	27
21	40-60	24	24
28	50-70	21	24
35	50-70	19	19

## Ventilation

The function of ventilation is not only to supply the chicks with an adequate supply of oxygen, it also assists with the removal of waste products of growth and combustion from the environment such as:

- Moisture removal.
- The provision of oxygen to meet the birds metabolic demand.
- The control of relative humidity.
- The maintenance of good litter conditions.

Always ensure that there is a supply of fresh air at all times, but be careful not to have a cold draft blowing into the house. This will reduce the temperature in the house.

Good maintenance of house curtains are crucial and it is important for curtains to be opening from top to bottom to ensure no cold drafts are blowing over the chicks.

## Bird health

Prevention is by far the most economical and best method of disease control. Prevention is best achieved by the implementation of an effective bio-security program in conjunction with an appropriate vaccination program.

Bio-security is a practice designed to prevent the spread of disease into your farm. It is accomplished by maintaining the facility in such a way that there is minimal traffic of biological organisms (viruses, bacteria, rodents, etc.) across its borders. It is the most effective and cheapest means of disease control on the farm. Below are a few key points to a successful bio-security program:

- Farms should be fenced.
- Limit non-essential visitors to the farm.
- Farm supervisors should visit the youngest flocks at the beginning of the day and working by age to the oldest flock for the last visit in that day.
- Provide wheel dips or wheel spraying facilities at the farm entrance and allow only necessary vehicles on site.
- Absolutely no other poultry should be kept on the same farm as your broiler unit.
- The area around the poultry house should be free from vegetation, debris and unused equipment that could harbour rodents.
- Adequate down-time between flock placements is essential (10 days).
- Dispose of dead birds immediately.
- Footbaths should be placed at every poultry house entrance.

## Vaccination

Vaccination is the administration of antigenic material (a vaccine) to stimulate the bird's immune system, to develop adaptive immunity to a pathogen. That means that it gives the bird's defence mechanism a "memory" system against that disease.

The most common vaccinations given to broilers are against diseases such as:

- New Castle disease
- Infectious Bursal Disease (Gumboro Disease)
- Infectious Bronchitis

It is very important to **CHECK WITH YOUR CHICK SUPPLIER WHAT VACCINATIONS YOU NEED TO DO!** Some hatcheries do carry out vaccinations at the hatchery.



## Nutrition

Broiler diets are formulated to provide the energy and nutrients essential for health and efficient broiler production. The basic nutritional components required by the birds are water, amino acids, energy, vitamins and minerals.

Feedmaster provides the following:

- All our products are specifically formulated to achieve the desired production at a lower cost.
- All our products are produced in an ISO 22000 accredited plant.
- All our products are formulated with natural products such as maize and soya, sunflower oilcake, chop and bran.
- We don't include any animal protein sources or animal derived products into any of our product ranges.
- We adhere to strict bio-security rules at all times in order to reduce possible contamination.
- The produced feed is put through a rigorous quality control process to confirm quality before being distributed.

## Target weights

It is important to weigh the chicks as they grow. The table below shows the target weights of the Cobb500.

Age (Days)	Weight for age (Grams)
0	42
7	185
14	465
21	943
28	1524
35	2191
42	2857

# Feedmaster Classic Broiler Range

Ideal for the smaller producer who sells live broilers to the market. It is a cost effective range with a moderate growth rate.

Number of chicks	Classic Broiler Starter Crumble		Classic Broiler Grower Pellet		Classic Broiler Finisher Pellet		Total	
	Day old - 14 days (500 per bird)		14 days - 3 days before slaughter (2.75kg per bird)		3 days before slaughter - slaughter (850g per bird)		4.1Kg	
	Kg Needed	Bag (50Kg)	Kg Needed	Bag (50Kg)	Kg Needed	Bag (50Kg)	Kg Needed	Bag (50Kg)
100	50	1	275	6	85	2	410	9
200	100	2	550	11	170	4	820	17
300	150	3	825	17	255	6	1230	26
400	200	4	1100	22	340	7	1640	33
500	250	5	1375	28	425	9	2050	42
600	300	6	1650	33	510	11	2460	50
700	350	7	1925	39	595	12	2870	58
800	400	8	2200	44	680	14	3280	66
900	450	9	2475	50	765	16	3690	75
1000	500	10	2750	55	850	17	4100	82



## Remember

- The amount of feed per bird is an indication, stick to the recommended feeding days indicated on the feeding table.
- For the first 10 days, feed should be on the pan feeders or on paper.
- From day 2, feed should also be in feeding troughs so that the chicks can learn to eat from it.
- Do not place feed or water directly under the heat source as this may cause the chicks to eat or drink less than they should.

# Recordkeeping

The biggest function of accurate records is for the farmer to utilize the information in future decision making. Accurate record keeping is essential to monitor the performance and profitability of a flock.

Daily records that should be taken:

- Mortality and culls
- Type of culls
- Feed consumption
- Water consumption
- Water to feed ratio
- Water treatments
- Minimum and maximum daily temperatures
- Minimum and maximum daily humidity
- Number of birds taken for processing
- Management changes

Flock records:

(are a summary at the end of the flock's cycle and include the following)

- Feed deliveries (supplier/amount/type/date of consumption)
- Feed sample from each feed delivery
- Live weight (daily/weekly/daily gain)
- Medication (type/batch/amount/date of administration/date of withdrawal)
- Lighting program followed
- Litter (type/date of delivery/amount delivered/visual inspection)
- Chick delivery (number/date/time/count in boxes/truck temperature and humidity)
- Stocking density
- Chick source
- Weights of each load at processing plant
- Downgrades
- Date and time of feed withdrawn
- Date and time catching started and finished
- Cleanout
- Post-mortem results
- Repairs and maintenance
- Controlling sensors and thermostats (date calibrated)
- Technical visits

Annual records

- Water (Tested at source and at the drinker)



No more 42 days

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Top quality  
raw materials

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Modern formulas  
and processes

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3 Phase feeding

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