BROILER GUIDE

Feedmaster

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 overemphasize the importance of 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 the feed.

Housing

- Poultry houses should be built with the shortest closed sides in an east to west direction.
- The house should have side curtains opening from the top to the bottom. This improves ventilation and avoids direct airflow on hens.
- Houses can be insulated, preventing big fluctuations in temperatures and conserve heat during the night and cool down during the day.
- Roof overhang should be extended to avoid the hens from being exposed to rain. Gutters can also be used to divert and collect rainwater.
- Concrete floors are ideal and most hygienic, however expensive. All floors need to be covered in bedding. Ground floors are the cheapest option, least hygienic and difficult to clean, is a bad moisture absorber can contain dangerous viruses and bacteria.
- Make use of metal and plastic when building. These materials are easy to clean

Placement of chicks

- Stocking density should be adapted with temperature changes. In the summer the stocking rate (10 birds per m^2) would be lower than in the winter (12 birds per m^2).
- The chicken house must 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 the 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 the water supply immediately.
- Swollen and distended crop - chicks have located water but insufficient feed. Check the feed supply immediately.

Daily checks should be made throughout 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 number 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 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.

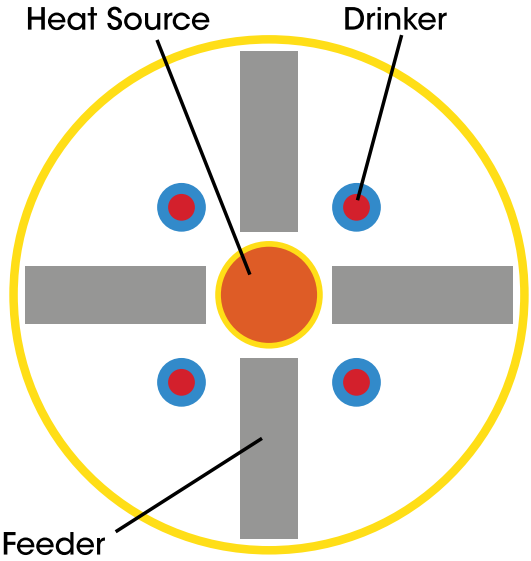
1. The skeletal structure.
2. The cardiovascular system.
3. Appetite and water consumption.
4. Health and the immune system.
5. Minimize stress.

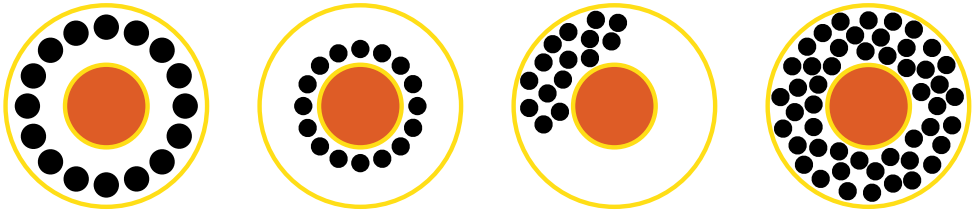
All these improvements will help accelerate the rate of growth of the chicks.

INFRARED LIGHTS

GAS BROODER

CHARCOAL





Litter/Bedding

Important functions of litter include the ability

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

Litter Type	Minimum depth or volume
Wood shavings	2.5cm - 10cm
Dry sawdust	2.5cm - 10cm
Chopped straw	1kg/m²

Lighting program and its 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 Ross

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 Ross

Aged (Days)	Relative Humidity %	Temperature °C for chicks
0	30-50	34
7	40-60	31
14	40-60	27
21	40-60	24
28	50-70	21
35	50-70	19
42	50-70	19

Ventilation

The function of ventilation is not only to supply the chicks with an adequate supply of oxygen, but 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 bird's 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 is crucial and curtains need 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 biosecurity 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 work by age to the oldest flock for the last visit on 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 harbor rodents.
- Adequate downtime 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 defense mechanism a "memory" system against that disease.

The most common vaccinations given to day-olds are against diseases such as:

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

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 product 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 oil cake, 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 to reduce possible contamination.

The produced feed is put through a rigorous quality control process to confirm the 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 Ross 308.

Age (Days)	Live Weight for age (Grams)
0	43
7	208
14	519
21	985
28	1573
35	2235
42	2918

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.

35 Day Model

Number Of Chicks	Classic Broiler Starter		Classic Broiler Grower		Classic Broiler Finisher		Total Feed	
	Day-old- 13.5 Days 500 g		13.5 Days - 3 Days before slaughter		3 Days before slaughter			
	KG Need	Bag 50kg	KG Need	Bags 50kg	KG Need	Bags 50kg	KG Need	Bags 50kg
100	50	1	206	5	31	1	286	7
200	100	2	411	9	61	2	573	13
300	150	3	617	13	92	2	859	18
400	200	4	823	17	123	3	1146	24
500	250	5	1029	21	153	4	1432	30
600	300	6	1234	25	184	4	1718	35
700	350	7	1440	29	215	5	2005	41
800	400	8	1646	33	245	5	2291	46
900	450	9	1851	38	276	6	2577	53
1000	500	10	2057	42	307	7	2864	59

42 Day Model

Number Of Chicks	Classic Broiler Starter		Classic Broiler Grower		Classic Broiler Finisher		Total Feed	
	Day-old- 13.5 Days 500 g		13.5 Days - 3 Days before slaughter		3 Days before slaughter			
	KG Need	Bag 50kg	KG Need	Bags 50kg	KG Need	Bags 50kg	KG Need	Bags 50kg
100	50	1	352	8	45	1	447	10
200	100	2	705	15	89	2	894	19
300	150	3	1057	22	134	3	1341	28
400	200	4	1410	29	179	4	1788	37
500	250	5	1762	36	223	5	2235	46
600	300	6	2114	43	268	6	2682	55
700	350	7	2467	50	312	7	3129	64
800	400	8	2819	57	357	8	3576	73
900	450	9	3172	64	402	8	4023	81
1000	500	10	3524	71	446	9	4470	90

This calculation was based on Ross 308 breeding standards and Feedmaster information. The calculations were also made with a 2% mortality rate in the starter phase and a 5% mortality on 35 days and 7% mortality on 42 days respectively.

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 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.

Water Management

- To ensure optimum egg quality and overall health, the water supplied to the hens should be of a good standard.
- Chicks which do not drink enough water will have an inadequate feed intake and bad growth. This effects future egg production ability.
- Do regular checks to ensure that drinkers are working properly and/or are full.
- Make sure drinkers are at crop level and the water pressure is correct.
- When temperatures are high or if birds have health problems, they consume more water to regulate body temperature.
- Add chlorine tablets to the water to sanitize water, but not during vaccination days
- Under normal conditions, broilers drink between 250 ml -500 ml of water each day.
- Do not feed water directly out of a borehole or big tank. Divert water to a smaller catchment tank to help with medicating and vaccination of hens.
- A 100-liter tank is ideal for a 100 hen setup.

Record keeping

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 the processing plant
- Downgrades
- Date and time of feed withdrawn
- Date and time catching started and finished
- Clean out
- Post-mortem results
- Repairs and maintenance
- Controlling sensors and thermostats (date calibrated)
- Technical visits

Annual records

- Water (Tested at source and the drinker)

Where do I buy broiler chicks?

DAYOLD CHICKENS NAMIBIA is a distributor of broiler chicks throughout Namibia. Visit www.dayoldchickensnam.com to register as a broiler farmer and order your chicks online.

You can track your delivery online and confirm your delivery date as per your order. Delivery dates and distribution points would be communicated to the customers per email or by phone.

Once you have received the chicks you must release them into the brooding house as soon as possible to minimize stress and prevent mortalities.

Feedmaster is responsible for the feed your chicks need to grow, we do not sell the chicks.

Contact **DAYOLD CHICKENS NAMIBIA**
Tel. 0833318175 or visit their web site www.dayoldchickensnam.com
Follow them on Facebook: Dayold Chickens Namibia

1 DAY

DAY 1 - DAY 13.5

DAY 13.5 - 3 DAYS
before slaughter

BROILER PRODUCTION CYCLE

LAST 3 DAYS
until slaughter

Full-grown broiler
on slaughter

END PRODUCT