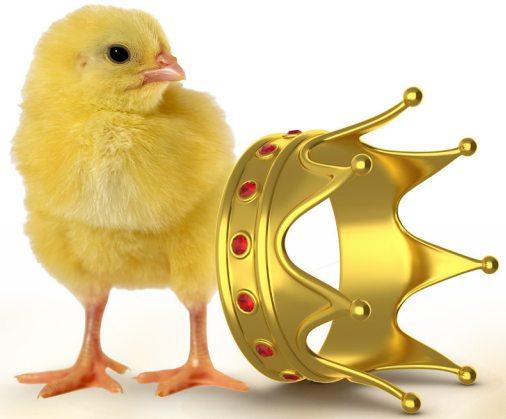


# *Superior*

## **CHICKS FARM**

SUPPLIER OF DAY OLD BROILERS



## *Broiler Management Guideline* (July 2022 Edition)



**Tel:** 012 811 5045 • **Cell:** 082 319 5152 or 061 499 3193

**E-mail:** [sales@superiorchicks.co.za](mailto:sales@superiorchicks.co.za) • 581 Theo Street, Rietvlei View Country Estate, Pretoria, 0181

**[www.superiorchicks.co.za](http://www.superiorchicks.co.za)**

## Superior Chicks Farm - Broiler Management Guideline (July 2022 Edition)

*You were born for such a time as this - Esther 4:14*

This guideline aims to present existing as well as potential future broiler farmers with practical and easy-to-use information to assist in achieving optimal performance from broilers. The secret to broiler farming success is in following a disciplined approach in managing operations, ensuring maximum flock welfare and productivity throughout the life of the flock. There are no shortcuts. In this guideline your attention will be drawn to issues, which, if overlooked or inadequately addressed, may depress flock performance. Broiler farming is about making a healthy profit and at the same time enjoying farming. Superior Chicks is there for you every step of the way, from providing you with the highest quality day old chicks and related products to our expert technical team giving you sound advice during the cycle. Do not delay in contacting us should you experience any challenges or require any further advice. Remember, your success is our success!

### Genetics

- Broiler chickens (Latin: Gallus gallus domesticus – translated to mean “house rooster”) are farm-reared chickens kept for meat.
- Broilers are selected for traits of commercial importance such as;
  - Feed Conversion Ratio (FCR)
  - Growth Rate
  - Meat Yield and
  - Liveability

As well as for other genetic advances in;

- Bird Welfare, Leg Health, Cardiovascular Fitness and Robustness

Achieving the full genetic potential that broilers are designed for depends largely on the following three elements, which are controlled by the farmer / grower;

1. **Management** to provide Broilers with the required **Environment**.
2. An optimal **Dietary Regime** that offers broilers with nutrients in the appropriate profile and
3. Effective **Biosecurity** and **Disease Control**

Should any of above be sub-optimal, broiler performance will suffer.

## Market

Before setting out to start broiler farming or decide to expand existing operations, there are some decisions that need to be taken around markets. You need to decide upfront between the live bird market vs. slaughter market or a combination of both. It is best that you find niche markets where you can maximise your selling rate and hence profits. Often farmers spend too little time on marketing. Getting your broilers to market on time is important. If you are late, not only will you disappoint your buyers, but more importantly you will lose profit for every day lapsed.

Broiler farming is intensive, and you can start relatively small without requiring large tracts of land. It is easily scalable – however take care - rapid growth can be devastating for some. Grow at a pace that you can afford and are comfortable with. Remember broiler farming is capital intensive, consisting of short cycles of typically between 5 to 7 weeks, providing a high and quick return on investment (ROI). Keeping a close eye on finances, including cashflow together with meticulous management of operations ensures business success.

## Infrastructure Requirement

When starting out or expanding, certain key decisions need to be made around either expanding on your current farm or buying / renting an existing broiler farm or purchasing a farm without any broiler house infrastructure. Each option needs to be scrutinised carefully and it is best to run the numbers very conservatively upfront.

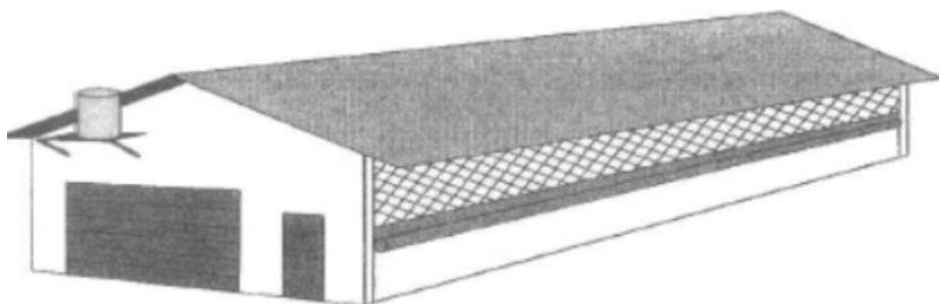
Factors to consider includes space for future expansion. Connection to adequate road infrastructure, not too far from - and with easy access to target markets. Farm security, such as safety of personnel and limiting stock theft. Proximity to other farms and biosecurity. Access to a consistent supply of consistent electricity and quality water. Noise Levels causing stress to your flocks, proximity to neighbors and the prevalence of a death pit needs to be considered.

Another key focus for planning your broiler farm layout should be hygiene. Where cross-contamination often occurs because of lazy thinking or critical flaws in planning. You need to consider every pathway or workflow of movement around the farm and minimise your infection risk. Avoid areas in a low pocket or hollow (to avoid cold air settling). Prevalence of tree protection or windbreaks to prevent direct drafts. Planning around water runoff and flooding needs to be done.

## ***Naturally Ventilated Broiler House design***

Although there are various broiler house designs to choose from, - with some farmers starting out in their garages or other structures - , we will discuss a very effective, economical, easy to maintain and clean; Naturally Ventilated Broiler House Design that will provide your broilers with the desired climatic conditions.

- The size of the broiler house is determined by the size of your planned operations and the dimensions should allow for a long side and a short side.
- When determining the size, work around a stocking density of 10 to 12 (summer to winter) full grown broilers per square meter.
- To ensure effective temperature control, orientate your naturally ventilated house in a north / south direction, with the longer sides facing north and south, the shorter, sides east and west.
- The length of the short sides can vary between 6 to 12 meters, but do not exceed 8 meters when the long side is shorter than 20 meters.
- A good broiler house is well insulated (given the high cost of energy) with curtains for ventilation. Ventilation provides fresh air and at the same time removes excess heat, moisture and undesirable gasses from the broiler house.



- More points to be considered when building your naturally ventilated broiler house:
  - Cast easy-to-clean smooth sloped concrete floors and plaster inside walls, all sealed off with a stone sealer.
  - High pitched roof to ensure proper ventilation and free movement around the house.
  - Curtain pulley system design for ventilation is advised. Since hot stuffy air rises, curtains are to be secured to the bottom side and lowered from the top down to provide more ventilation.
  - Biosecurity – controlled access with a foot bath and sufficient distance between broiler houses.



- Minimum 260 l drum for water supply to auto-drinkers. Consider at least two days backup water supply. The amount of water consumed by broilers at various ages can be calculated from the representative water consumption chart for broilers in the water section of this guideline.

#### I.t.o. Maintenance

- Ridding your broiler house of any deficiencies will lock in your profits for the long term.
- This is because temperature leaks, uneven distribution of heat, water leaks etc. results in general discomfort for your flock leading to underweight and uneven results.

### Stocking density

Recommended stocking density is 10 to 12 fully grown broilers (summer to winter) per square meter. Do not overstock, as this will adversely affect the chicks' growth potential. **Never keep more than one-age birds under the same roof.**

### Brooding (This section is vitally important and cannot be over stressed!!!)

The first two to three weeks in the life of a broiler flock are critical and require particular attention. Here perfect Brooding must be achieved!!!

- Definitions
  - Brooding = Management of Baby Chicks till 2 to 3 weeks of age.
  - Brooder = Device used for providing artificial heat during brooding.

During the first 10 days of life, the chicks' environment changes from that of the hatcher to that of the broiler house. The most important fundamental principles of brooding include: Temperature, feed, water, light and ventilation. **In the Broiler House, chicks must adapt to establish healthy feeding and drinking behaviors to achieve genetic potential for growth.** A flock in which some of the chicks have not started to eat for one or two or even three days will be uneven. With the continual genetic progress that is being made, the age at which the bird reaches its kill weight continues to be reduced. A consequence of this is that the brooding period accounts for a much bigger proportion of the birds' life. Partial house brooding is a common practice and a very effective way to achieve a suitable environment for chicks. Brooding rings, brooding areas or partitions are used to control not just the stocking density, but also feeder and drinker space. Monitor temperature and relative humidity regularly. Ventilation - Air quality challenges such as high ammonia or dust in the house could negatively impact the early development of chicks. Avoid drafts.

## Temperature Control

Maintaining proper temperature to promote efficient growth is key to profitable broiler production. Farmers that are able to farm throughout the winter tend to be more successful, since both competition is less in the winter season, and they are able to build quality all-year-round client - and supplier relationships, giving them consistent access to the best that the market has to offer. During winter it is necessary to keep the poultry house free from drafts, but at the same time ensure adequate ventilation to avoid ammonia build-up in the air causing respiratory problems. Plenty of fresh air should be allowed to circulate around the house.

Where reliable electricity supply is present, we recommend a DRM electric brooder, i.e., 300 chicks per brooder in winter and 450 chicks per brooder in the summer. Gas and Bio-bricks are effective alternatives and can be used where no electricity supply is present and as backup source during periods of loadshedding and other power outages. Bio-bricks are made from plant residues and one large Bio-brick provides 4 to 5 hours of heat to around 250 birds. They are used in conjunction with traditional homemade stoves / “konkas”.

Raise the height of the electric brooders, infrared lamps or gas burners as the broilers grow, since their need for artificial heat will diminish as they grow feathers.

Chicks huddle together when they're cold, which can cause smothering or suffocation, so check your chicks regularly to ensure they are comfortable. Heat Stress on the other hand are caused by exposure to too much heat, causing mortalities and a loss in appetite.

**A max-min thermometer is a must!** With temperatures closely monitored at bird-height, recorded, and actively managed. Failing to do so often result in disastrous consequences, with farmers often unaware of the real problem negatively affecting growth and mortalities.

Relative brooding temperatures required at various stages during the cycle.										
Day	1	3	6	9	12	15	18	21	24	28 to slaughter
Temperature °C	32	30	28	27	26	25	24	23	22	20

Relative Humidity should be around 60 %.

## Cleaning and disinfecting

Since broilers are highly susceptible to diseases, broiler farmers should take the necessary management actions to keep their individual broiler operations as clean as possible. Biosecurity is key in ensuring an efficient and profitable poultry business. The cost to the poultry business because of disease can be astronomical. This is because disease can result in loss of production through slower growth rates, the death and / or culling of your birds, lower quality carcass at slaughter and cost of medication. Chicks should only be placed in a broiler house which is clean and hygienic.

We will now outline the process in days of allowing the **broiler house to rest for at least one week between cycles** and preparing the broiler house for the next cycle up to placing of chicks.

### Preparation of broiler house up to placing of chicks

#### Day minus 6 (6 days before chicks arrive): Emptying the broiler house

Once all chickens are sold / removed from the broiler house, remove all organic material from the previous cycle and dispose far away from broiler house, avoiding any further cross contamination with such disposed materials. Remove, clean-out and disinfect all drinkers and feeders separately.

#### Day minus 5 (5 days before chicks arrive): Cleaning the broiler house

Sweep broiler house by broom and wash all surfaces by power hose (preferably power washer) from top to bottom and / or scrub using soap. Sunlight liquid is very effective here.

#### Day minus 4 (4 days before chicks arrive): Leaving the broiler house to dry with curtains open

#### Day minus 3: (3 days before chicks arrive) Disinfect broiler house

Once the broiler house is completely dry, spray the whole house using Virukill, or other disinfectants.

#### Day minus 2: (2 days before chicks arrive) No one is allowed in the broiler house today

Ensure your foot bath is in place and filled with disinfectant. This is to prevent the spread of bacteria, viruses and other pathogens.

#### Day minus 1: (Day before chicks arrive)

- Screen a quarter of the house out with a plastic sail to create a tent to retain heat energy. Here day-old chicks can be placed at 50 chicks per square meter in the brooding area / tent. This will save energy as the whole house does not need to be heated. Keep the chicks in the tent for the first 2 weeks as they are not able to completely maintain their body temperature until this age.

- Ensure the tent always has adequate ventilation. Allow good ventilation from day 3 and increase rapidly every day after. Never close ventilation completely, rather provide more heat to reach the desired temperature as outlined in the temperature chart on page 5.
- The floor surface should be covered with a bedding material called litter to provide broilers with comfort. **We recommend white pine shavings or similar to a thickness of 5 to 10 cm (summer to winter).** Do not try to save on shavings, as this will cost you more in the end. Newly placed shavings are to be disinfected by spraying with a light mist of Virukill and allowed to dry. A good quality litter serves as an insulator to maintain uniform temperature, absorbing moisture and promoting drying. Litter further dilutes faecal material, reducing contact between birds and manure.
- Place feeders and drinkers. Spacing is important here.

#### **Day 0: Arrival Day, immediately place chicks in the broiler house on delivery.**

- Stabilise the temperature 3 hours before chicks arrive. Pre-heat house to 32 degrees for day old chicks and gradually drop temperature daily until a temperature of 20 degrees is reached by day 28. **Temperature readings must be taken at chick height.**
- Roll out strips of white (or brown) paper. This is to avoid wastage of food as well as stimulating the chicks' senses in terms of chicks seeing the food against the white background, and hearing noise when they walk on the paper.
- Place starter feed on paper surface.
- Place chicks on paper surface with starter feed.
- Ensure that there is always enough water and at least 3 days of backup water supply in case of an emergency. Water temperature should be below 25 degrees (above this temperature chicks will eat less and naturally grow less). During hot days frozen 2 l water bottles can be dropped into the water tank to ensure water stays cool. Provide clean water daily. Clean, good quality water is of utmost importance. Provide Stresspac freely to the drinking water, at recommended intervals.
- Do not place water or feed directly under the heat source as this may cause the chicks to drink or eat less.
- Ensure there is no direct wind or draft on the chicks.
- **Make sure chicks show interest in food and water and run around within 2 to 4 hrs from placement to reduce the number of nonstarters that die within 3 to 5 days.** Establishing good feeding and drinking behaviours will allow the target body weight to be on target and maximise your flocks' uniformity.



- Crops should be full, soft and rounded to show that chicks have found feed and water. Checks are to be done 2, 8, 12, 24 and 48 hours after placement. For more information refer to How-To-Assess-Crop-Fill document from Aviagen on our website at [www.superiorchicks.co.za](http://www.superiorchicks.co.za)
- Chick behavior should be closely and frequently observed.
- Use your senses to monitor the broiler house environment through seeing, smelling, hearing and feeling.
- If possible, add a probiotic from day one. In most multi-systems antibiotics are recommended. Routine administration of antibiotics can however result in bacteria resistance at later stages. Please refer to the two medication programmes below.
- Accurate record keeping is essential for effective management.
- **The start and critical first ten days management very much sets the tone for the remaining weeks of the rearing period.**

## Common Broiler Medicines, Supplements, Vaccines and Disinfectants

Pathogen control starts with broiler house management using a proper medication-, cleaning- and vaccination program and controlling water- and feed hygiene. It is essential to follow a medication program that is suitable to your operation. It is key that you at all times provide Stresspacc and vaccinate against Newcastle Disease. It is not only important to provide the right kind of medicines, but also make sure you administer the right quantity at the right time. Please consult packaging overleaves for details or the Superior Chicks Farm office for assistance.

### ***Virbac Phenix Stresspac***

Nutritional water-soluble Vitamin, Electrolytes and Mineral Supplements to aid in all forms of stress and dehydration, building up the chicks' resistance against diseases.

Directions: Mix 100 g per 200 l water – provide for 2 to 6 days at a time and repeat as necessary.

### ***Superstart***

Significantly improves early activity by boosting antioxidant & electrolyte levels, increasing energy availability, thereby, assisting in digestion and enzyme stimulation.

Administer for 6 hours daily during the first 3 days @ 2 kg per 1000 l water.

**Gutpro**

Waterlines treatment with the main objective of reducing pathogen levels and organic levels in the water lines and improve gut health. Used in salmonella control programs. Administer once a week from day 5 onwards at 5 ml per liter of water.

**Oregro HS**

A water-soluble balanced solution containing Oreganum essential oil extracted from the plant Oreganum vulgare, Vitamin C, Vitamin E and Electrolytes specially designed for heat stress in all ages of poultry. Mix 1ml - 1.5 ml / 1l drinking water and administer 7 days.

**Stresscare L**

A unique liquid product made from natural plant extracts, probiotics, enzymes, vitamins and organic acids for growth promotion, prevention of proliferation of harmful bacteria and improvement of the well-being of the poultry during the full production cycle. Mix 0.5 ml / 1l drinking water and administer for varying treatment period, depending on the application.

**Oregro L**

A natural feed additive that contains Oreganum essential oil extracted from Origanum vulgare that assists in alleviating problems associated with necrotic enteritis in poultry.

Water soluble: 1 ml / 10 l drinking water and administer 3 to 5 days.

**Flaveco 80**

Used as a growth enhancing feed additive for the improvement of the feed conversion rate in farm animals. Flavo-80 also aids in restoring sensitivity of multi-drug resistant Salmonella typhimurium and Escherichia coli in farm animals. Add 1 gram of the product to 1 kg of feed.

Bambermycin is not absorbed from the gastro-intestinal tract and therefore no withdrawal period is necessary when fed Flaveco 80.

**Super Air**

Water-soluble essential oils that assist in the relief of respiratory tract difficulties and cases of swollen head syndrome usually caused by poor ventilation. Improves gut health. Blend of aromatic oils (Eucalyptus, Peppermint & Origanum) for use in poultry housing systems.

Application: Mix 25 ml in 100 l of drinking water. Super air is not an antibiotic and should not be given together with antibiotics

**Protexin Soluble**

7 strain pro-biotic to inoculate the intestinal tract of the day-old broiler. Assist with the development of the digestive system and enzymes that help for better growth and general health of the chicks.

Directions: Mix 5 g per 1 l of drinking water on day one as well as after antibiotic treatments to restore gut health.

**Fosbac Plus T (Now called Bactofos Plus)**

For the prevention of Micoplasmosis on multi age farms as well as against E-coli and other secondary infections. Directions: Mix 10 g per 10 l of drinking water and administer orally by mixing with drinking water for 3 to 5 consecutive days. Discontinue 7 days before slaughter.

**Kitabac**

Effective against Coccidiosis. Directions; Prevention = 1 g per 4 l of drinking water for 3 to 5 days. Treatment 5 g per 10 l of drinking water for 5 to 7 days. Discontinue 1 day before slaughter.

**Doxy-Max 50%**

For the treatment of bacterial respiratory disease and bacterial gastrointestinal infections. Use 10 to 20 g depending on birds' age per 10 l, for 3 to 4 consecutive days. Discontinue 9 days before slaughter.

**Oxytet FG 200**

Feed additive for the treatment of secondary bacterial infections that complicate primary respiratory infections in poultry. Add 1 g of the product to 1 kg of feed for 7 to 14 days. All feed medicated with Oxytet FG 200 must be withdrawn 7 days before slaughter.

**Aivlosin Soluble (25g)**

Used for prevention (3 to 5 days post placement and again for 24 hours at three weeks of age) and treatment (for min 3 days when birds show any signs of chronic respiratory disease) and metaphylaxis of lung infections caused by the bacterium Mycoplasma gallisepticum. Mix the contents of one 25 g sachet into 2 l warm water to make up to 200 l drinking water. Discontinue 5 days before slaughter.

***Bedgen 40 Poultry (Now called Digestible-L)***

Liver modulator and performance enhancer. Anti-toxic liver protector assists in recovery from fatty liver syndrome and alleviates signs of mycotoxins and other intoxications. Directions; 20 ml in 10 l of drinking water for 4 days continually.

***Virukill (Disinfectant)***

For broad spectrum disinfection of surfaces and drinking water against all poultry viruses, bacteria, fungi, mycoplasma, yeast and algae. Directions:

Washing @ 20 ml per 10 l water,

Disinfection @ 100 ml per 10 l water,

Spraying @ 100 ml per 10 l water and

Water dosing @ 10 ml per 100 l water.

***RBT Eco Residual Sanitiser (Disinfectant)***

Disinfect against bacteria, viruses and fungi that spread disease and infection.

Directions: Highly infected areas 1:3, Infected areas 1:10, General use 1:100

***Eliminator***

Germicide, desiccant and ammonia reducer. Will dry out manure, wet spots & prevent bacterial growth and fend off flies. Scatter over wet spots @ 200 grams per square meter.

## Vaccinations

**It is of utmost importance that all chicks are vaccinated against Newcastle Disease on day 14. Failure to do so might result in huge economic losses. Newcastle disease is a viral disease that is not treatable.**

*(Please refer to the SC Vaccination Manual for Step-by-Step Instructions available on our website at [www.superiorchicks.co.za](http://www.superiorchicks.co.za) or below, of which a printout is also provided on delivery with your vaccine).* Give half dose stress pack 2 days before and 2 days after vaccination. Do not use chlorinated water to vaccinate chickens. It deactivates the vaccine. Take water away for a few hours before giving vaccine. Use vaccine within 1-2 hours of mixing. **Newcastle Disease:** day 14 in water. Allow for a withdraw period of one week meaning chickens vaccinated cannot be used for human consumption at least 7 days after vaccination. **IBD / Gumboro:** day 18 once of only if it has been advised to do so. Not advisable to give IBD if there is not an IBD problem.

*To ensure broilers are kept in optimal health and production and to avoid large scale losses through death, vaccines prevent specific diseases by triggering the immune system of the birds to fight the disease through antibodies.*

As a Standard Superior Chicks are VH + IBH120 vaccinated on day one – i.o.w. vaccinated against Newcastle and Infectious Bronchitis. Here Oral Application of Live Newcastle Disease Vaccine required on day 14 and Gumboro Vaccine on day 18 (to vaccinate only if already present in broiler house

Alternatively, you can opt for the Full CEVA / VVT Vaccine that lasts for the whole cycle; i.e.

- *CEVAC® VITABRON L contains the PHY.LMV.42 strain of Newcastle Disease virus and the Massachusetts H120 strain of Infectious Bronchitis virus in live, freeze-dried form.*
- *CEVAC® TRANSMUNE IBD vaccine contains the Winterfield 2512 strain of Infectious Bursal Disease live virus in complex with IBD immunoglobulins (VPI: Virus Protecting Immunoglobulins) in freeze-dried form.*
- *Vectormune® ND is a recombinant HVT vector vaccine, which uses the herpes virus of turkeys (HVT) as the vector and which genome the Fusion (F) gene of Newcastle disease virus (NDV) has been inserted.*



## Oral Application of Newcastle Disease Vaccine on day 14 and Gumboro Vaccine on day 18

To ensure broilers are kept in optimal health and production and to avoid large scale losses through death, vaccines prevent specific diseases by triggering the immune system of the birds to fight the disease through antibodies.

There are numerous diseases that broilers need to be vaccinated against of which Newcastle Disease (to vaccinate at all times) and Gumboro (to vaccinate only if already present in broiler house) are the most common.

***To ensure effectiveness of the vaccine, the correct administration thereof is key, and the following important facts are to be noted:***

- Never expose vaccines to direct sunlight.
- Store vaccines in fridge (not freezer) at temperatures of between 2 – 8 degrees.
- Transport vaccines in cooler box with an ice pack – wrap vaccine in paper to avoid direct contact between ice pack and vaccine.
- Use entire contents once opened and do not store for future use.
- Mild respiratory signs may be observed for 5 – 7 days after administration to fowls.
- Only healthy chickens should be vaccinated and it is advisable to provide Stresspac two days leading up to and two days after vaccination.
- Birds need a minimum withdrawal period of 21 days between vaccination and slaughter.
- Remember number of doses is important rather than the dilution.

### ***Step by step Instructions:***

1. Wash drinkers.
2. To stimulate thirst, withhold water for 30 minutes to 1 hour before vaccination to ensure all birds drink.
3. Prepare non-chlorinated fresh cool water with 2g skim milk powder per liter of water or 2.5ml blue dyed water stabiliser per vaccine. The dye aids in assessing whether they all drank.
4. Open vaccine vial under the water and gently dissolve the tablet into amount of water that fowls will consume within 30 minute period i.e.

A basic guideline as to the amount of water to use is 1000 doses in as many liters as the age of the birds in days i.e. 14 liters for vaccination for 100 - 1000 birds at day 14, 28 liters for the vaccination of 1100 - 2000 birds at day 14 etc.

5. Distribute the final volume of vaccine water evenly among the clean waterers.
6. For less than 1000 birds, mix as above and discard water which was not consumed within the 30 minutes.
7. Resume regular water administration.

## Medication Program

There are two main schools of thinking around medication in broiler farming i.e. routine antibiotic vs probiotic route and this is also the essence of our two medication programs as outlined below. Note that in both programs you need to Vaccinate against Newcastle Disease. Vaccinate against Gumboro only when recommended. You need to strictly adhere to one program only, during a cycle!

Program 1: Routine Antibiotic administration route				
	Stresspac	Newcastle disease vaccine	Fosbac Plus T	Bedgen 40
Day				
1	*		*	
2	*		*	
3	*		*	
4	*			
5	*			
6				
7				*
8				*
9				*
10				*
11				
12	*			
13	*			
14	*	*		
15	*			
16				
17				
18	*			
19	*		*	
20	*		*	
21	*		*	
22				
23				
24				*
25				*
26	*			*
27	*			*
28				*
29				
30				
31				
32	*			
33	*			
34				
35				
36				
37				
38				
39				
40				
41	*			
42				

**Program 2 – Routine Antibiotic administration - Bupo Combo Bucket** - Please enquire about our Bupo Combo Buckets for a one stop basic medication program solution throughout the cycle. The following products are included in the bucket:

- *Oregro L* = Natural antibiotic and growth promoter
- *Stresscare L* = Liquid stress pack and multi vitamin
- *Oregro HS* = For Heat Stress with vitamins and electrolytes
- *Betakill* = Broad spectrum disinfectant
- *Bedgen 40* = Liver modulator and performance enhancer
- *Backtefort* = Broad spectrum bacteriostatic antibiotic
- *Fosbac + T* = Broad spectrum energizing bacteriostatic antibiotic compound containing Fosfomycin and Tylosin

**Program 2: Bupo Combo Bucket + ND Vaccine + Virbac Stresspac**

	Stress Care L	Oregro L	Bedgen 40	Oregro HS	Fosbac + T	Kitabac	Newcastle disease vaccine	Virbac Stresspac
<b>Day</b>								
1			*	*	*			*
2			*	*	*			*
3			*	*	*			*
4			*		*			*
5			*		*			
6	*							
7	*							
8	*							
9		*						
10		*						
11		*						
12		*						
13		*						
14	*						*	
15	*							
16	*							
17						*		
18						*		
19						*		
20								
21			*					
22			*					
23			*					
24		*						
25		*						
26		*						
27		*				*		
28		*				*		
29		*				*		
30 - 40								
41								*
42								

*\* With the antibiotic route (Program 1 and 2), it can be argued that the future is discounted for possible current gains. Here possible future antibiotic resistance remains a real concern, in light of the uncontrolled administration thereof.*

## **Cleaning during cycle**

Remove wet spots daily. Turn wet litter every 3 days until day 18 and then stop, allowing litter to rather form a hard surface but continue removing excessive wet spots. Spray Virukill weekly in the broiler house, also covering birds with mist. Identify and fix any causes of excessive wet litter present, to avoid a build-up of ammonia gas in the broiler house. Causes of ammonia gas build-up relate to water from leaking roofs, pipes, drinkers mixing with the bodily wastes of the broilers in the litter on the floor. Excessive ammonia gas causes serious respiratory as well as other health problems in broilers, leading to monetary losses due to high mortalities and underperforming birds. Ammonia also causes burns to the breast area of the broiler when resting on the wet litter.

## **Feed**

The Feed Conversion Ratio (FCR) is a measure of how well a flock converts feed intake (feed usage) into live weight. With feed cost representing 60 – 70 % of the total cost of broiler production, the efficient conversion of feed into live weight is essential for profitability and even small changes in the FCR at any given feed price will have a substantial impact on financial margins.

The key to preventing FCR Problems is ensuring that throughout the brooding and grow-out period, good management practices are in place so that bird performance are optimised.

The Brooding period is critical for gut development and hence the efficiency of feed utilisation. Feeding Space, feeder height and the provision of good quality feed is important to ensure efficient feed intake and to avoid feed spillage. As a rule of thumb for amount of feeders – all chicks should be able to feed at once.

The provision of adequate drinking space and a source of clean water is essential. A reduction in water intake will lead to a reduction in feed intake.

Maintaining the correct Environmental Temperature will result in chicks expending energy on growth rather than on just surviving.

**At all times provide the highest quality feed that contains adequate levels of digestible proteins and other components as well as the necessary additives like growth stimulants and remedies against Coccidiosis etc.**

Another key factor that can adversely affect weight gain and mortalities is the presence of Mycotoxin producing Fungi in feed, where they often contaminate economically important crops in the fields, during harvest, storage, shipment, and processing. The effects of Mycotoxins on broilers include alteration in nutrient content, metabolism, and absorption, immune system suppression and changes in the endocrine function. When deciding on which feed to provide, compare the composition of that feed to that specified by the Ross 308 Broiler Nutritional Specifications (which can be obtained from our website at [www.superiorchicks.co.za](http://www.superiorchicks.co.za)) for optimal growth of which the most important components to look out for are:

<b>Ross 308 Specification for broilers grown to 2.3 – 2.5 kg liveweight @ 42 – 45 days</b>			
	<i>Starter</i>	<i>Grower</i>	<i>Finisher</i>
Protein %	22-25	20-22	18-20
Ca %	1	0.9	0.85
Lysine %	1.44	1.23	1

**Trying to save money on feed will end up costing the farmer more in the end.** It is as important as purchasing the highest quality chicks from the start.

Typical quantities of feed required are as follows:

<b>Meadow Classic / Budget</b>	<b>Feed required per 100 Chicks</b>
Starter (Day 1 – 21)	100 kg
Grower (Day 22 – 35)	150 kg
Finisher (Day 36 – 42)	100 – 150 kg

Chickens after day 42 should go on maintenance feed.

Feed trays @ 2 to 3 / 100, jumbo to standard

Bulk Chick Feeders @ 4 / 100

Tube feeders @ 3 / 100



Feed needed per day (g) = age (in days) x 4 x amount of chicks.

Depending on what is more practical and economical to the farmer is the deciding factor on when grower feed is started.

Do feed transition over 2 to 3 day period for example 75% starter to 25% grower then 50:50, 25:75 and 100% new feed.

*Follow the manufacturers guideline. **Keep to one feed manufacturer throughout a cycle. Provide feed freely and remember cheaper feed will cost you more at the end of the cycle.** Some Feeds on the market do not comply to Ross 308 minimum recommended standards and should be avoided. The minimum protein levels as well as the digestible protein composition thereof is of utmost importance here.*

Pre-slaughter: feed withdrawal 8 – 10 hours before the expected slaughter time. Longer periods will result in loss of bodyweight.

Depending on the model of farming, you would expect broilers to be slaughtered at:

- 5 – 7 weeks if raised in broiler houses (Intensive)
- 8 weeks free-range
- 12 weeks organic (pastured)

Day	Live Body Weight (kg)	Cumulative Feed Consumed (kg)	FCR
7	0.208	0.170	0.821
14	0.519	0.548	1.057
21	0.985	1.183	1.201
28	1.573	2.102	1.336
35	2.235	3.290	1.473
42	2.918	4.702	1.611
49	3.583	6.270	1.750
56	4.203	7.931	1.887
63	4.760	9.625	2.022
70	5.250	11.307	2.154

Table: Ross 308 Performance Objectives

Store feed in a drum that can seal on a pellet. Ensure that pests like rats, mice and stray birds do not come into contact with your broilers or with their feed.

## Water

Age (Weeks)	Liters per 1000 birds
1	61
2	106
3	171
4	237
5	293
6	336
7	363
8	374

*Table: Representative water consumption chart for broilers at a uniform house temperature of 21 °C*

Broilers should always have access to clean drinking water. Water hardness measuring below 750 ppm and Water Quality in the 6 to 8 PH range. A reduction in water intake will lead to a reduction in feed intake and hence reduction in growth performance.

8-, 10- and 12-liter drinkers @ 1 per 100 birds. 1 automatic drinker per 100 birds.

Add 2 extra 4-liter fountain drinkers with anti-drown rings per 100 chicks during the first 3 days.

## Light

The following general light program is recommended for feeding:

Age in days	Hours of light provided per day for feeding
0-7 days	23 hours
From 8 days old to slaughter	16 - 18 hours

Because gut development is of utmost importance during the first few days it is critical that the birds only sleep for 1 hour during the first seven days. Feeding non-stop causes wastage and can cause organ failure during later stages of the cycle. Remember, above lighting program only provides a general guideline and other factors such as seven-day mortalities and weight etc. also needs to be considered.

## Good Stockmanship

The more time you spend with your flock, the more attentive you will be to their needs. Sure it will cost you in time spent on-site, but the cost of missed signs of trouble could be much worse.

At the end of the day it boils down to using your senses:

**Hearing:** breathing, respiratory and other sounds?

**Sight:** observe the health and demeanor. Are they feeding, drinking or resting? How are they distributed throughout the house? Air and litter quality? Dust levels?

**Smell:** Is the air stale or stuffy? Ammonia levels?

**Taste:** Water and feed quality?

**Feel:** General condition of bird / crop-fill? Temperature? Air movement / drafts?

Causes of any mortalities and diseases should be rapidly identified so that appropriate corrective actions can be put in place.

## Superior Chicks Farm Quality Commitment and Ordering Process.

Our commitment to our Superior Chicks Farmers big and small is to consistently provide you with only the highest quality First Grade Chicks and Services. Superior Chicks Farm delivers only First Grade Chicks from healthy parent stock which are of good quality and uniformity. Lighter Chicks although still of good quality typically goes into the commercial market. This is because commercial farmers are in most cases better equipped to take care of lighter chicks.

Broiler farming can at times be challenging and should you experience any challenges, you are advised to immediately contact the office, who will put you in touch with one of our technical advisors who will assist you every step of the way. Managing all factors well, as well as ensuring the highest quality biological inputs should result in uniformly sized broilers ready for the market. Please enquire about our range of supplements, medicines, equipment and other products available to you.

Further to this, given our positioning in the market we endeavor to increase our loyal clients' orders during the busy season within reason. However, take care not to overstock during busy seasons as this might adversely affect growth.

We deliver on a weekly basis to most towns in North-West, Limpopo, Mpumalanga, Free-State and Gauteng. Our ordering process is as simple as contacting our office on the details provided below, from where our highly skilled professional team will assist you every step of the way.



Superior Chicks (Pty) Ltd • Reg No 2019/366611/07 • Director: Daniel Jacobus Maritz  
Tel: 012 811 5045 • E-mail: sales@superiorchicks.co.za • Portion No 581 of Section 400, Farm Grootfontein 394 JR, Pretoria

[www.superiorchicks.co.za](http://www.superiorchicks.co.za)

Payments are due strictly one week before scheduled delivery date. Please contact us for any information or further technical advice.

**Superior Chicks (Pty) Ltd contact details:**

Tel: 012 811 5045

Cell: 082 319 5152 / 061 499 3193

[sales@superiorchicks.co.za](mailto:sales@superiorchicks.co.za)

[www.superiorchicks.co.za](http://www.superiorchicks.co.za)



Superior Chicks Farm