

Broiler Production in Namibia



Feedmaster
Your Quality Solution

Broiler Breeds



- The Broiler industry have only 2 distinct common breeds.
- They are known as the **Ross** and **Cobb**
- They do not vary in appearance.
- They are characterised by their distinct white feathers and thick large yellow legs.
- The Ross is the one currently used in Namibia due to the availability of the eggs for incubation.

Why farm with Broilers
and not other types of
chickens?

1. Better performance and feed efficiency
2. Less Space required
3. Birds under complete control
4. Inspection and culling is easy
5. Uniform growth of birds
6. Record keeping made easier
7. Labour utilized more efficiently
8. Market Ready in 35 days
9. Feed conversion of 1,67:1

Large Scale Broiler Houses



SME Broiler Houses

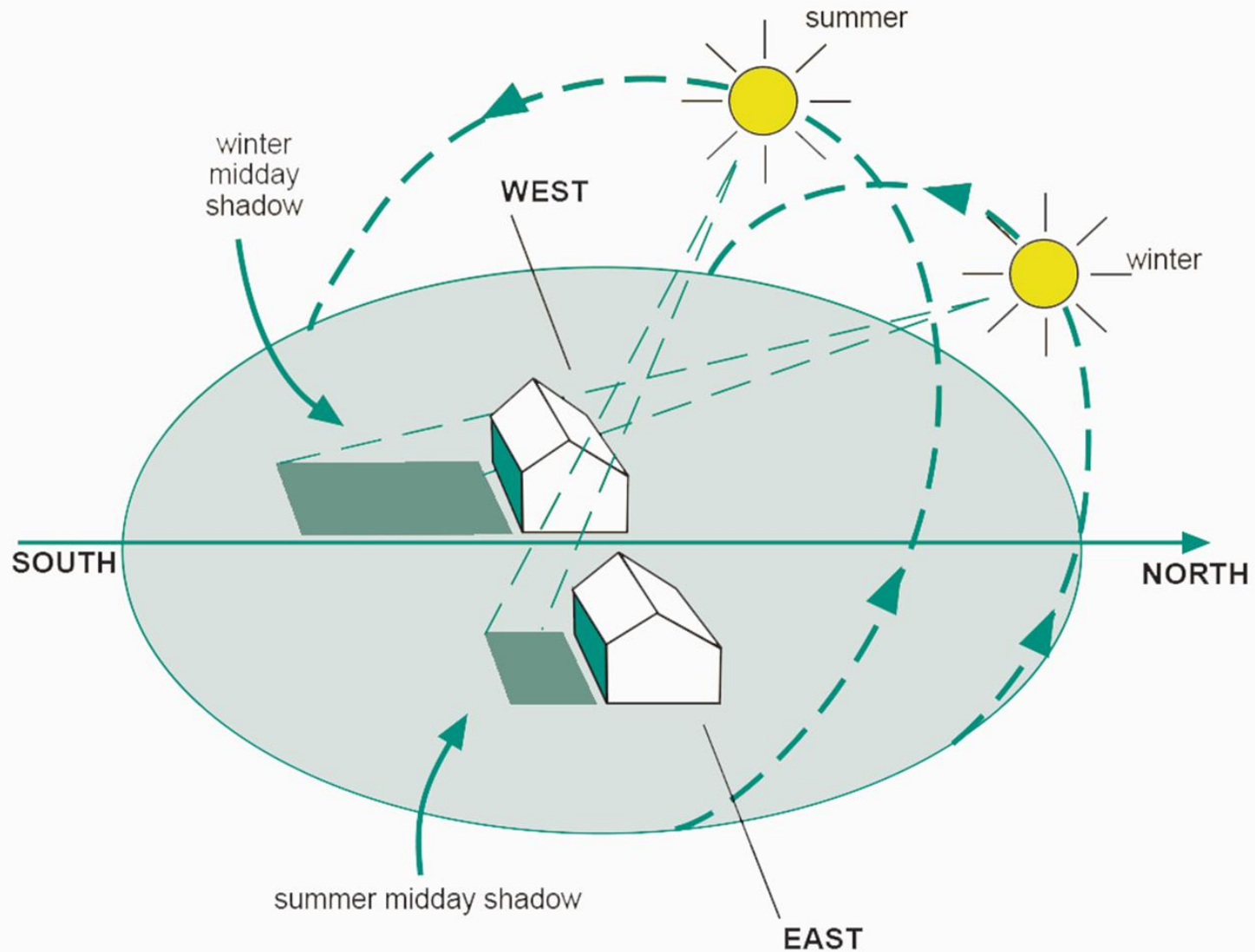


Examples of poultry houses ideal for small scale farming.



Placement of poultry house

Figure 1: Seasonal paths of the sun and the cast of shadows



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.

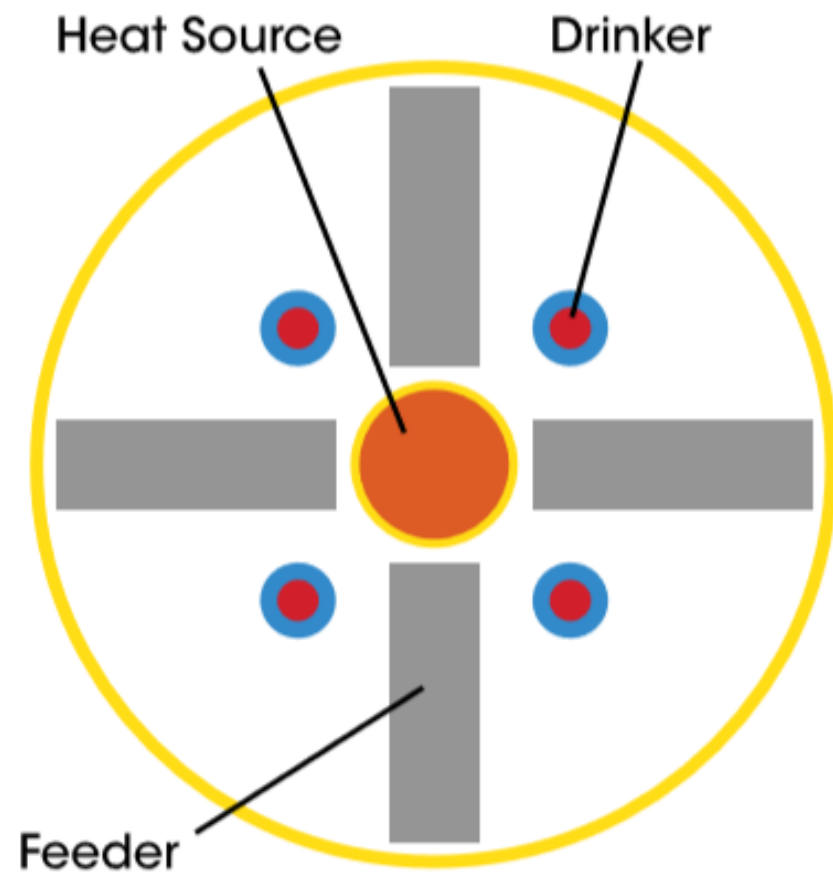
1. The skeletal structure.
2. 2. The cardiovascular system.
3. 3. Appetite and water consumption.
4. 4. Health and immune system.
5. 5. Minimize stress.



Placement of Chicks

- Summer months (10 birds per m²)
- Winter months (12 birds per m²)
- Before Placement of chicks ensure temperature is at about 33°C
- Add food and water a day before to bring to room temperature
- House must be disinfected and rest for 10-12 days before placement of chicks.
- Cover floor in newspaper to avoid direct contact to ground
- Test chick temperature 4-6 hours after placement against cheek to determine if chicks are hot enough.





Too Hot



Too Cold



Draught



Comfortable

Results of cold floor temperature:

- Poor early feed intake
- Poor growth
- Poor uniformity



24 hours after placing

Do crop test:

95% should have located
feed and water

Touch crop softly

- If pliable enough feed and water was located
- If hard enough feed but not water located
- If flaccid no feed only water located



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.

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 ²
Sunflower hulls	5cm
Rice hulls	5cm

Lighting program and it's advantages

Better feed conversion

Reduce mortality rate and skeletal defects

Stimulates the production of melatonin

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



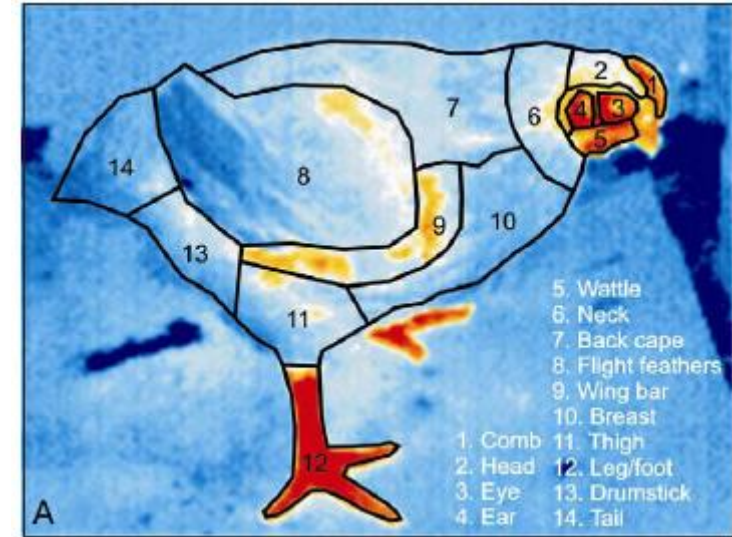
Temperature management

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

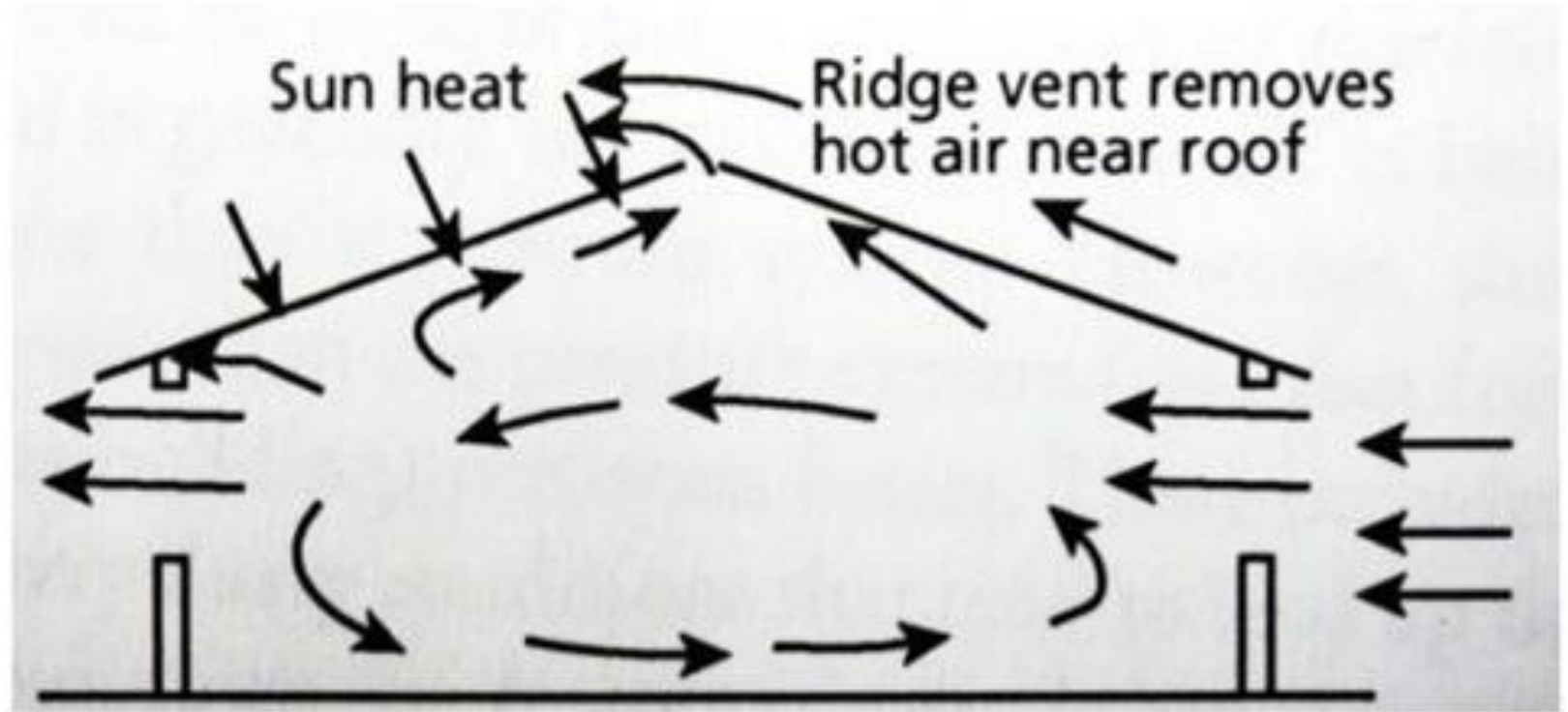
Aged (Days)	Relative Humidity %	Temperature °C for chicks from 30 week old parent flocks or <u>younger</u>	Temperature °C for chicks from 30 week old parent flocks or <u>older</u>
0	30-50	34	33
7	40-60	31	30
14	40-60	27	27
21	40-60	24	24
28	50-70	21	24
35	50-70	19	19



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.



Bird health

- Prevention
- Effective bio-security program
- Appropriate vaccination program
- Bio-security prevent the spread of disease such as bacteria, viruses and rodents.



Bird health (continues)

- Farm fenced
- Limit visitors and high risk visitors
- Visit flocks from youngest to oldest
- **No other poultry may be kept on same farm!!**
- Area around kept free from debris and vegetation to keep rodents away
- Disinfect all vehicles tyres as they enter the premises
- After each cycle remove manure disinfect and leave for 10 days before new cycle
- Dispose of dead birds as soon as possible
- Foot baths should be at each entrance to every house



Vaccination

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

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



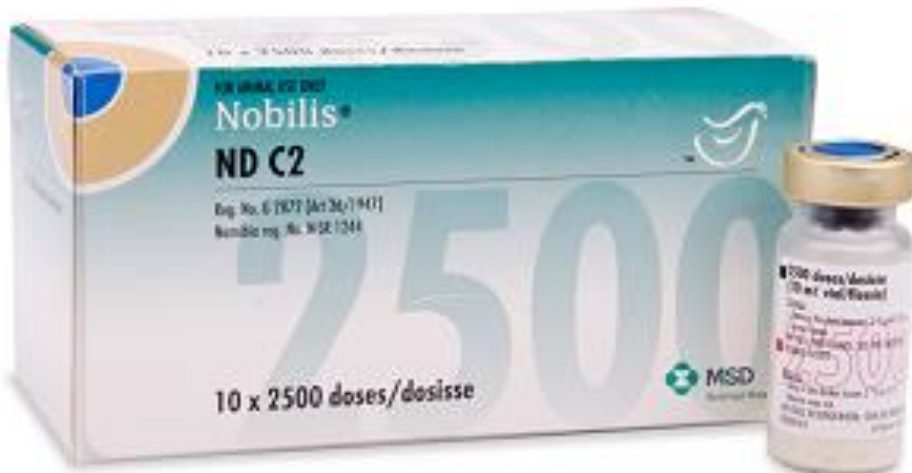
All the chicks coming from Dayold Chicks Namibia are vaccinated against Newcastle and infectious bronchitis but not Gomboro disease.

Consult MSD representatives on vaccination schedules and disease related questions.



New Castle Disease

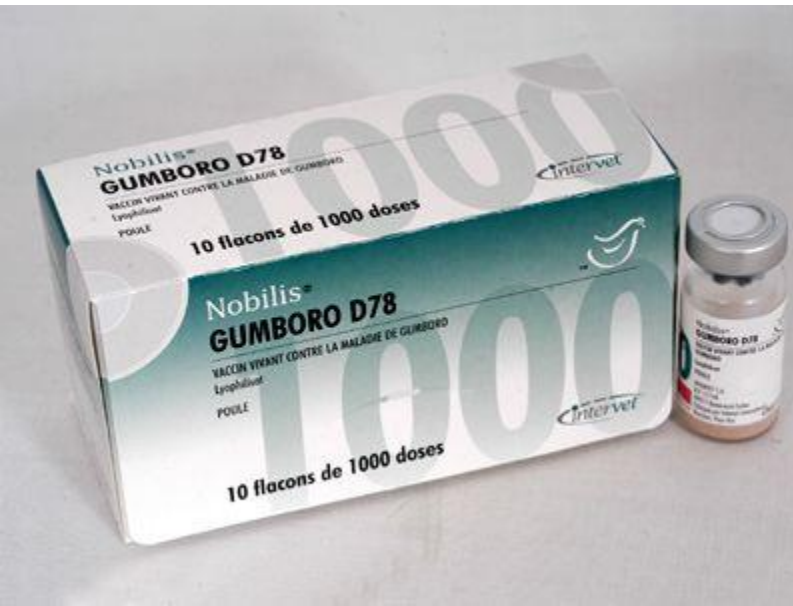
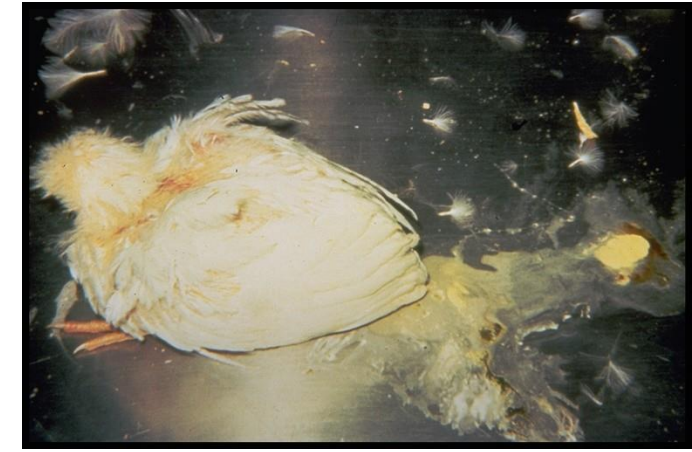
sudden death, greenish diarrhoea, severe difficulty in breathing, neck twisting and high mortality.





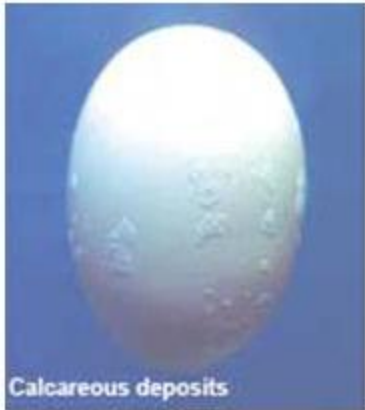
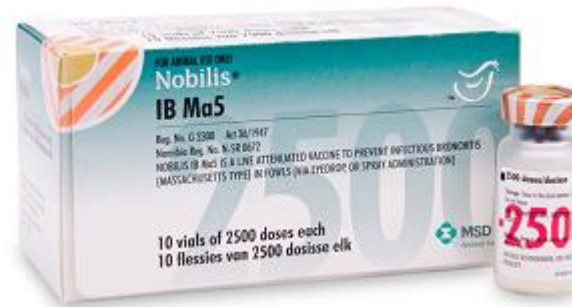
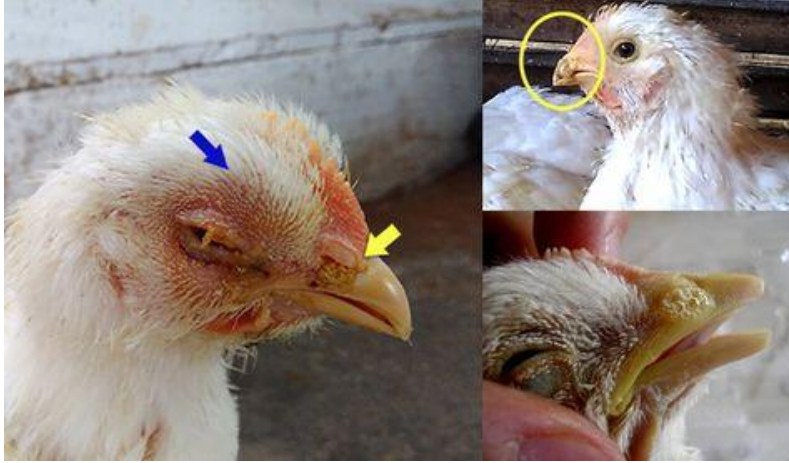
Gumboro

depression, poor appetite, chalky white diarrhoea, ruffled feathers, haemorrhages on thighs and breast, closed eyes and sudden death.



Infectious Bronchitis

coughing, sneezing and gasping in young birds, loss of appetite and wet litter.

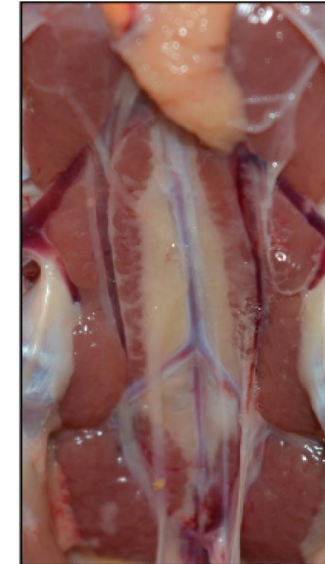


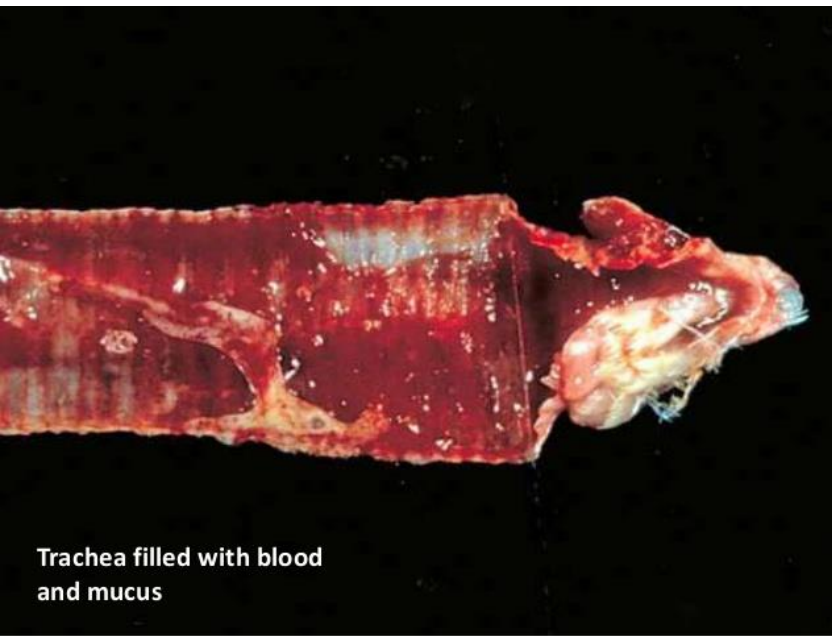
IBV-infected egg defect



IBV-infected
embryo

normal
embryo

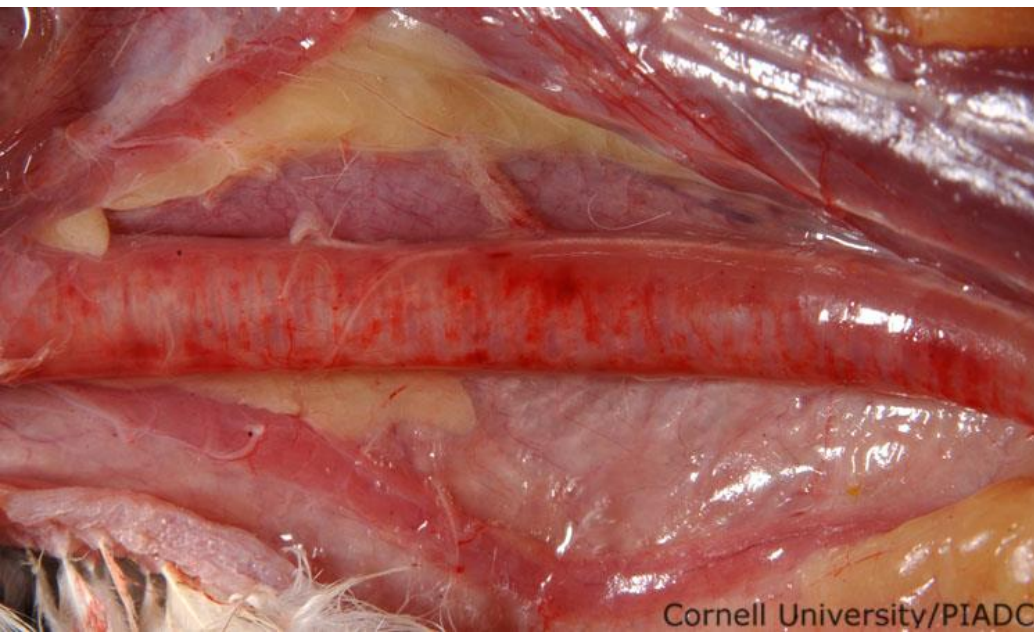
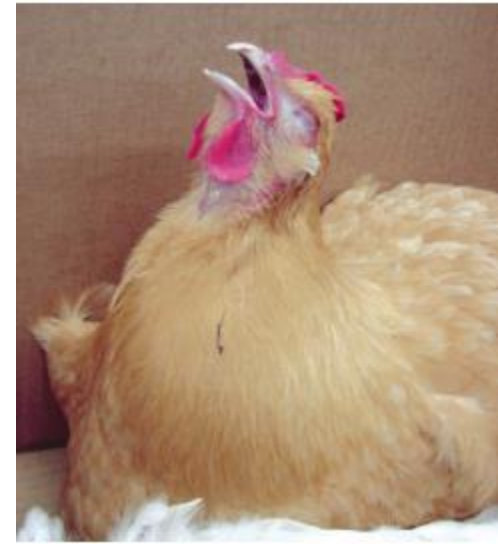




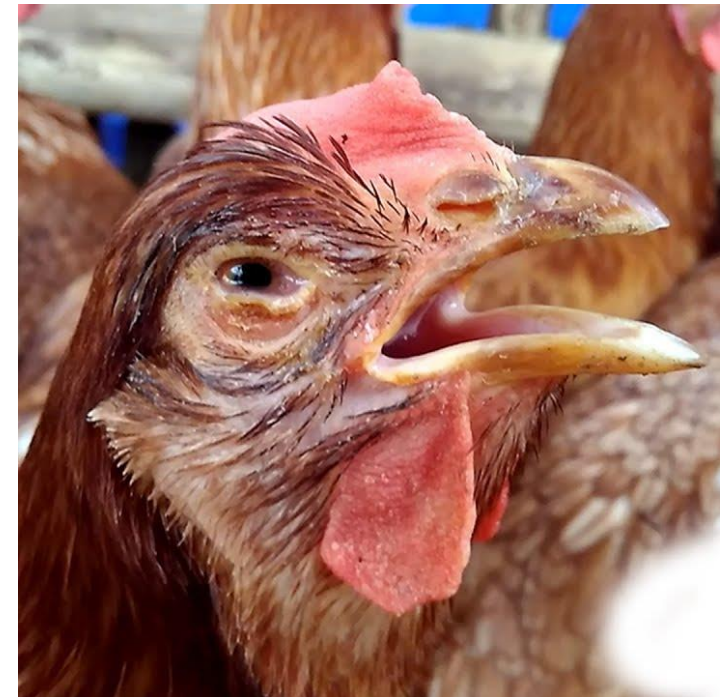
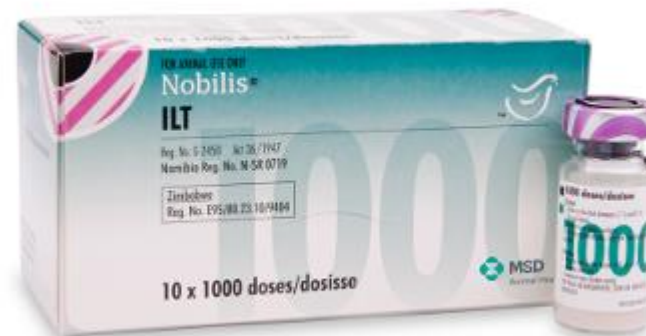
Trachea filled with blood and mucus

Infectious laryngotracheitis (ILT)

swollen, watery eyes, swollen sinuses, and a persistent watery or mucoid nasal discharge, bloody trachea, bloody coughing



Cornell University/PIADC





Infectious Coryza

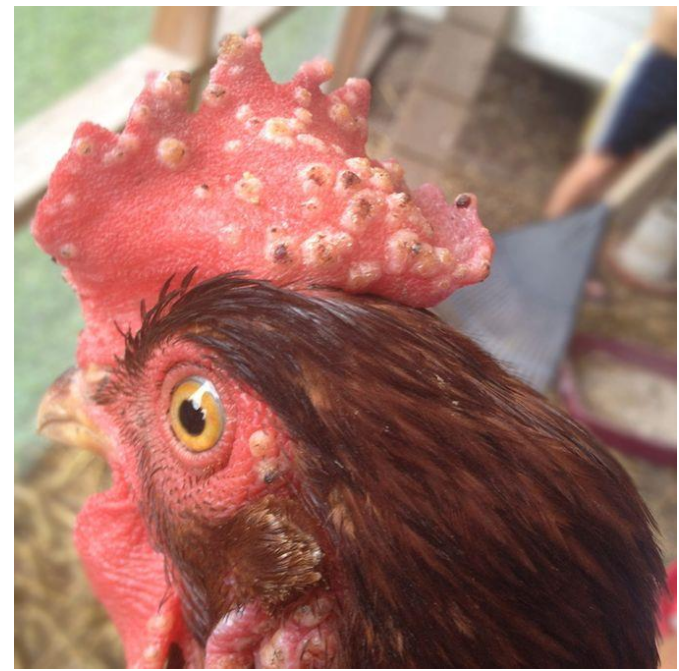
- Facial swelling.
- Purulent ocular and **nasal discharge**.
- Swollen wattles.
- **Sneezing**.
- Loss in condition.
- Drop in egg production of 10-40%.





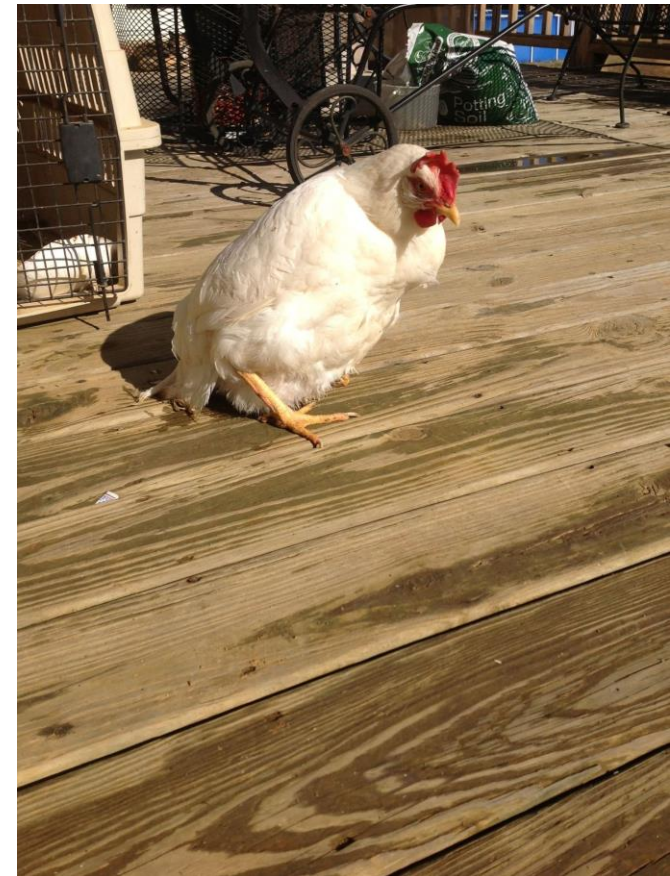
Fowl Pox

- Warty, spreading eruptions and scabs on comb and wattles.
- Caseous deposits in mouth, throat and sometimes trachea.
- Depression.
- Inappetance.
- Poor growth.



Ascites

- Poor bird development.
- Dilated abdomen ("waterbelly")
- Dyspnoea (panting, accompanied with gurgling sounds, even in the absence of apparent heat stress)
- Possible cyanosis (a blue discoloration of the skin, especially around the comb and wattles and muscle tissue).



Coccidiosis

- **Diarrhea.**
- Weakness and listlessness.
- Pale comb or skin.
- Blood located at the vent site of the bird.
- Decreased food or water consumption.
- Ruffled feathers.
- Weight loss (in older chickens)
- Decreased growth rate (in young chickens)



Water Management

- Water Temp 18-20°C
- Nipple drinkers 1 nipple 10 birds
- Bell drinkers 1 per 100 birds
- Fountain Drinker/ Chick Font 1 per 50 birds 12L

Water consumption will not exceed 60 litres per day for a hundred chickens



Target weights

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



Nutrition

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.



Classic Broiler Starter Crumble

Feed from day old until 14days of age. Average feed intake 500g per chick over this period



Classic Broiler Grower Pellets

Feed from 14days until 3days before slaughter.
Average
feed intake 2,75kg per chick over this period



Classic Broiler Finisher Pellet

Feed from 3days before slaughter until slaughter.

Average feed intake 850g per chick over this period



Feed intake and growth response will depend on the prevailing environmental conditions as well as disease challenges.

RANGE OF FEED



Feed Requirements

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





BROILER PRODUCTION CYCLE



Where can I find dayold chicks?



Jan Balt 0814568679

<http://dayoldchickensnam.com/>

Thank you
Markus du Plessis
Technical advisor SME
Poultry

0816354061

