

# Why my Broiler is not Performing?

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24-09-2022

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### What a Performance In open shed?

BROILER Performance in Bangladesh											
No	Farmer	Hatch date	Breed	Chicks	Mort%	Body Wt.	F C R	M Age	Day Gain	EEF	CFCR
1	Julfid	18-Oct-20	Lowman IR	998	3.61	2,723	1.528	37.01	73.74	468	1.338
2	Khurshed	18-Oct-20	Ross 308	500	2.00	2,210	1.432	33.00	66.97	458	1.380
3	Doli	18-Jan-21	Oslo	500	3.55	2,355	1.532	33.00	71.21	457	1.410
4	Kanon	09-Dec-20	Lowman IR	747	2.41	2,359	1.493	34.00	69.38	454	1.403
5	Shahdul	14-Nov-20	Lowman IR	1,495	1.94	2,220	1.413	34.12	65.06	452	1.358
6	Rubel 2	03-Nov-20	Lowman IR	499	2.40	2,437	1.466	36.00	67.69	451	1.357
7	Shahinur	19-Oct-20	Ross 308	1,230	0.97	2,444	1.501	36.00	70.90	450	1.390
8	Jinnatun	18-Oct-20	Lowman IR	540	0.93	2,172	1.450	33.00	65.82	450	1.407
9	Sattar	09-Nov-20	Lowman IR	1,250	2.80	2,374	1.520	34.01	69.80	446	1.427
10	Moraita	11-Jan-21	Lowman IR	1,599	3.38	2,274	1.480	33.23	68.23	445	1.412
11	Parul	24-Oct-20	Lowman IR	1,997	4.76	2,561	1.529	36.13	70.88	442	1.389
12	Mizanur	19-Oct-20	Lowman IR	1,500	4.97	2,749	1.556	38.45	71.50	441	1.367
13	Haran	26-Oct-20	Lowman IR	700	4.00	2,366	1.478	35.01	67.58	439	1.387
14	Lubna	01-Oct-20	Ross 308	500	2.40	2,335	1.492	35.00	66.71	436	1.408
15	Sanowara	29-Nov-20	Lowman IR	797	4.39	2,306	1.488	34.00	67.82	436	1.412
16	Kamal	20-Oct-20	Lowman IR	1,396	3.87	2,571	1.516	37.49	68.58	435	1.373
17	Shamim	24-Sep-20	Ross 308	700	5.71	2,346	1.455	34.18	68.64	433	1.400
18	Kalam	26-Oct-20	Lowman IR	800	4.13	2,578	1.541	37.22	69.26	431	1.397
19	Rubel 2	09-Nov-20	Lowman IR	3,000	2.27	2,180	1.463	34.15	63.84	426	1.418
20	Koran	19-Oct-20	Lowman IR	3,834	4.59	2,707	1.564	38.59	69.43	424	1.387
21	Layli	29-Dec-20	Lowman IR	1,490	4.03	2,378	1.505	36.00	66.06	421	1.411
22	Shafe	06-Jan-21	Lowman IR	2,799	3.43	2,280	1.493	35.03	65.09	421	1.423

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### What is Broiler Performance?

Age	Weight	FCR	Mortality	Day Gain	EEF	CFCR
1	15	1.1	0.1	1.5	1.0	1.0
2	30	1.2	0.1	3.0	1.0	1.0
3	45	1.3	0.1	4.5	1.0	1.0
4	60	1.4	0.1	6.0	1.0	1.0
5	75	1.5	0.1	7.5	1.0	1.0
6	90	1.6	0.1	9.0	1.0	1.0
7	105	1.7	0.1	10.5	1.0	1.0
8	120	1.8	0.1	12.0	1.0	1.0
9	135	1.9	0.1	13.5	1.0	1.0
10	150	2.0	0.1	15.0	1.0	1.0
11	165	2.1	0.1	16.5	1.0	1.0
12	180	2.2	0.1	18.0	1.0	1.0
13	195	2.3	0.1	19.5	1.0	1.0
14	210	2.4	0.1	21.0	1.0	1.0
15	225	2.5	0.1	22.5	1.0	1.0
16	240	2.6	0.1	24.0	1.0	1.0
17	255	2.7	0.1	25.5	1.0	1.0
18	270	2.8	0.1	27.0	1.0	1.0
19	285	2.9	0.1	28.5	1.0	1.0
20	300	3.0	0.1	30.0	1.0	1.0
21	315	3.1	0.1	31.5	1.0	1.0
22	330	3.2	0.1	33.0	1.0	1.0
23	345	3.3	0.1	34.5	1.0	1.0
24	360	3.4	0.1	36.0	1.0	1.0
25	375	3.5	0.1	37.5	1.0	1.0
26	390	3.6	0.1	39.0	1.0	1.0
27	405	3.7	0.1	40.5	1.0	1.0
28	420	3.8	0.1	42.0	1.0	1.0
29	435	3.9	0.1	43.5	1.0	1.0
30	450	4.0	0.1	45.0	1.0	1.0
31	465	4.1	0.1	46.5	1.0	1.0
32	480	4.2	0.1	48.0	1.0	1.0
33	495	4.3	0.1	49.5	1.0	1.0
34	510	4.4	0.1	51.0	1.0	1.0
35	525	4.5	0.1	52.5	1.0	1.0
36	540	4.6	0.1	54.0	1.0	1.0
37	555	4.7	0.1	55.5	1.0	1.0
38	570	4.8	0.1	57.0	1.0	1.0
39	585	4.9	0.1	58.5	1.0	1.0
40	600	5.0	0.1	60.0	1.0	1.0
41	615	5.1	0.1	61.5	1.0	1.0
42	630	5.2	0.1	63.0	1.0	1.0
43	645	5.3	0.1	64.5	1.0	1.0
44	660	5.4	0.1	66.0	1.0	1.0
45	675	5.5	0.1	67.5	1.0	1.0
46	690	5.6	0.1	69.0	1.0	1.0
47	705	5.7	0.1	70.5	1.0	1.0
48	720	5.8	0.1	72.0	1.0	1.0
49	735	5.9	0.1	73.5	1.0	1.0
50	750	6.0	0.1	75.0	1.0	1.0

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30 day  
Body Wt 1.989 Kg  
FCR 1.358

42 day  
Body Wt 3.278 Kg  
FCR 1.555

### What a Performance In EC shed?

Climate Control Broiler Farm Performance in Thailand									
Farm: Auanglong Farm, Nakhonratchasima					Integrator: Thai Food Group				
Breed	ARBOR ACRE				ARBOR ACRE				
SEX	MALE		Average		FEMALE		Average		As Hatched
	1	2	Average		1	2	Average	1	2
Flock	22,000	22,500	44,500		24,000	24,500	48,500	46,000	47,000
Chicks Housed	1.27	1.24	1.26		1.17	1.14	1.15	1.22	1.19
Sq Ft/Bird									
Hatch Date	07-Jul-17	13-Sep-17			07-Jul-17	13-Sep-17		07-Jul-17	13-Sep-17
Mort%	2.35	2.16	2.25		2.08	4.54	3.32	2.21	3.40
Av Body Weight	3.050	3.210	3.131		2.820	2.780	2.800	2.930	2.989
F C R	1.610	1.660	1.636		1.620	1.810	1.714	1.615	1.732
Mean Age	41.00	41.00	41.00		42.00	42.00	42.00	41.52	41.52
Day Gain	74.39	78.29	76.37		67.14	66.19	66.67	70.56	71.99
EEF	451	461	456		406	349	376	427	402
CFCR	1.347	1.357	1.353		1.415	1.615	1.514	1.382	1.485

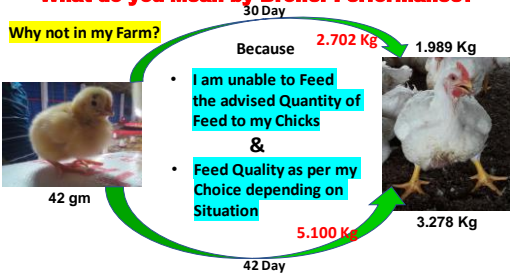
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**What do you Mean by Broiler Performance?**

Why not in my Farm?



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**Why my Broiler is not Performing?**

- Lack of **Awareness** about updated Requirement of our Chicks among poultry production personnel
- Lack of **Attitude** among poultry community to Learn from Technical documents & Breeders manual
- Lack of **Initiative** among Poultry Scientific community & Poultry Entrepreneur to educate the farming community
- Lack of **Investment** and Awareness about Return on Investment from Modern Chicken Farm by respective stakeholders

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**Why not Eating Recommended Amount Feed?**

Age (Days)	Weight (Kg)	Feed Intake (Kg)	Feed Conversion Ratio (FCR)
1	0.042	0.001	0.024
2	0.050	0.002	0.040
3	0.060	0.003	0.050
4	0.070	0.004	0.057
5	0.080	0.005	0.063
6	0.090	0.006	0.067
7	0.100	0.007	0.070
8	0.110	0.008	0.073
9	0.120	0.009	0.075
10	0.130	0.010	0.077
11	0.140	0.011	0.079
12	0.150	0.012	0.080
13	0.160	0.013	0.081
14	0.170	0.014	0.082
15	0.180	0.015	0.083
16	0.190	0.016	0.084
17	0.200	0.017	0.085
18	0.210	0.018	0.086
19	0.220	0.019	0.087
20	0.230	0.020	0.088
21	0.240	0.021	0.089
22	0.250	0.022	0.090
23	0.260	0.023	0.091
24	0.270	0.024	0.092
25	0.280	0.025	0.093
26	0.290	0.026	0.094
27	0.300	0.027	0.095
28	0.310	0.028	0.096
29	0.320	0.029	0.097
30	0.330	0.030	0.098
31	0.340	0.031	0.099
32	0.350	0.032	0.100
33	0.360	0.033	0.101
34	0.370	0.034	0.102
35	0.380	0.035	0.103
36	0.390	0.036	0.104
37	0.400	0.037	0.105
38	0.410	0.038	0.106
39	0.420	0.039	0.107
40	0.430	0.040	0.108
41	0.440	0.041	0.109
42	0.450	0.042	0.110
43	0.460	0.043	0.111
44	0.470	0.044	0.112
45	0.480	0.045	0.113
46	0.490	0.046	0.114
47	0.500	0.047	0.115
48	0.510	0.048	0.116
49	0.520	0.049	0.117
50	0.530	0.050	0.118
51	0.540	0.051	0.119
52	0.550	0.052	0.120
53	0.560	0.053	0.121
54	0.570	0.054	0.122
55	0.580	0.055	0.123
56	0.590	0.056	0.124
57	0.600	0.057	0.125
58	0.610	0.058	0.126
59	0.620	0.059	0.127
60	0.630	0.060	0.128
61	0.640	0.061	0.129
62	0.650	0.062	0.130
63	0.660	0.063	0.131
64	0.670	0.064	0.132
65	0.680	0.065	0.133
66	0.690	0.066	0.134
67	0.700	0.067	0.135
68	0.710	0.068	0.136
69	0.720	0.069	0.137
70	0.730	0.070	0.138
71	0.740	0.071	0.139
72	0.750	0.072	0.140
73	0.760	0.073	0.141
74	0.770	0.074	0.142
75	0.780	0.075	0.143
76	0.790	0.076	0.144
77	0.800	0.077	0.145
78	0.810	0.078	0.146
79	0.820	0.079	0.147
80	0.830	0.080	0.148
81	0.840	0.081	0.149
82	0.850	0.082	0.150
83	0.860	0.083	0.151
84	0.870	0.084	0.152
85	0.880	0.085	0.153
86	0.890	0.086	0.154
87	0.900	0.087	0.155
88	0.910	0.088	0.156
89	0.920	0.089	0.157
90	0.930	0.090	0.158
91	0.940	0.091	0.159
92	0.950	0.092	0.160
93	0.960	0.093	0.161
94	0.970	0.094	0.162
95	0.980	0.095	0.163
96	0.990	0.096	0.164
97	1.000	0.097	0.165
98	1.010	0.098	0.166
99	1.020	0.099	0.167
100	1.030	0.100	0.168

Do you Know the Daily Recommended Feed Amount?

Yes

Do you Know the Need of your Chicks to Consume Daily Recommended Feed Amount?



Here is all the Problem; **Awareness & Attitude** - the issue

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**Need of the Chick for Recommended Feed Intake**

- **Comfortable House Environment for Chicks 24 x 7**
- Disease Free Housing of Chicks
- **Easy accessibility of recommended Feed & Sanitize Drinking Water 24 x 7**
- Health Management, especially Gut Health
- **Protection from Diseases through Vaccination & Biosecurity**



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### Comfortable House Environment

What you wants First for Comfort?

**Bed/Litter**  
I) Space to Live, Eat & Rest  
II) Quality Dry & Softness

What Next?

**Temperature**  
Most Important for everyone

What is Next you Want?

**Ventilation/  
Air Circulation**  
O<sub>2</sub> Entry, Exit of CO<sub>2</sub> & NH<sub>3</sub>  
and Litter Dryness

Next?

**Light**  
Activity, to see food & Water and Welfare

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### Comfortable Bed to Live, play & Sleep

Floor Space Need for Broiler depends

- Live Weight Target & Marketing Age
- Season/ Climate
- Type & System of Housing and Equipment, particularly Ventilation

1 <sup>st</sup> Week	0.3 – 0.4 sq ft
2 <sup>nd</sup> Week	0.5 - 0.6 sq ft
3 <sup>rd</sup> Week	0.7 – 0.8 sq ft
4 <sup>th</sup> Week onwards	1.4 – 1.6 sq ft



Under Open Farming System (Non EC) with Excellent Ventilation where both Side Open, 1,580 Kg Broiler Meat per Sq Ft is Possible

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### Comfortable Bed to Live, play & Sleep

Disease Free House with Comfort for Broiler in terms

- Dry & Soft Litter till Marketing
- Comfort Zone Temperature from Day One to Lifting
- Sufficient Ventilation
- Comfortable Light



Only Possible in Closed House EC Shed

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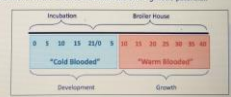
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### Comfortable Temp from Start to Lifting in Summer

Age (Days)	White-House Growing Temp. °C (°F)
Day-old	30 (85)
3	28 (82)
6	27 (81)
9	26 (79)
12	25 (77)
15	24 (75)
18	23 (73)
21	22 (72)
24	21 (70)
27	20 (68)

It is crucial for broiler performance to ensure a proper development of the chick (incubation = first 10 days of grow-out) especially because the chick does not have the ability to properly control its body temperature ("Cold Blooded") during this period.

Winter temperatures pose an additional challenge to the development of chick and the subsequent adult broiler. This is mainly due to poor temperature control and also to compromised ventilation in the broiler houses. Good stockmen have the responsibility to maintain a good environment for the chick to maximize the birds' genetic potential.



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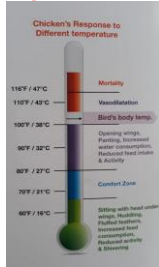
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**Comfortable Temp from Start to Lifting in Summer**

COLD STRESS	COLD	OPTIMUM	WARM	HEAT STRESS
Below 10°C	10 – 18°C	18 – 24 °C	25 – 30°C	Above 30°C
Exhaustion	Adjustment	Comfort Zone	Adjustment	Exhaustion

To achieve maximum performance, poultry house Temperature must be kept consistently within the bird's thermo-neutral or comfort zone

Otherwise, the bird will expend additional energy to regulate its Body Temperature resulting poor Body Weight Gain & Poor FCR



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**Comfortable Temp from Start to Lifting in Summer**



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**Comfortable Temp from Start to Lifting in Summer**

Ground Reality



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**Comfortable Temp from Start to Lifting in Summer**



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**Comfortable Temp from Start to Lifting in Summer**



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**Comfortable Temp from Start to Lifting in Winter**



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**Comfortable Temp from Start to Lifting in Winter**



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Comfortable Brooding Temperature - Chicks Playing, Eating & Drinking immediately after Release

**Good Ventilation for Air Exchange & Dry Litter**

Ventilation or Wind Movement or Air Exchange is the **minimum** amount of Air volume required to maintain full Genetic Potential of birds



**Objective of Ventilation**

- To Provide Oxygen required for growth
- To Remove Water from faeces & vapour from broilers respiration to **maintain the RH** (At 10 days age, 15 broilers produce almost 1 litre water/Day, of which 25 to 40 % from faeces) throughout the growing period and to maintain Good Litter condition
- To Remove Excess heat created by birds and litter
- To Remove unhealthy gas: CO<sub>2</sub>, NH<sub>3</sub>, etc

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### Good Ventilation for Air Exchange & Dry Litter

Air quality is critical during Brooding, proper ventilation is required to maintain correct Temp & Humidity

Inadequate ventilation leads to high incidence of Ascites & CRD



Poor ventilation leads to reduced air circulation, accumulation of NH<sub>3</sub> which results low Feed Intake & reduced Growth rate and Loss of Cilia in Trachea, which in turn leads to Sneezing & other abnormal Respiratory Sounds



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### Chick Housing in Disease Free Farm



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### Good Ventilation for Air Exchange & Dry Litter



Fans are on just after placement in Automatic EC Shed



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### Chick Housing in Disease Free Farm



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**Easy Access to Feed & Safe Water from Start**



**Day-to-Day Health Management**

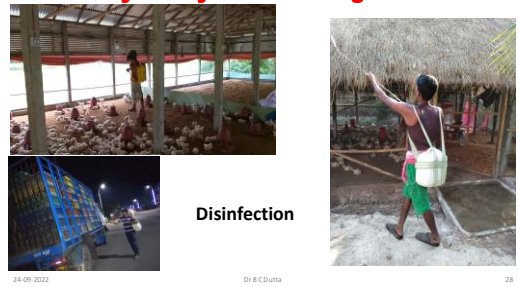


**Easy Access to Feed & Safe Water from Start**



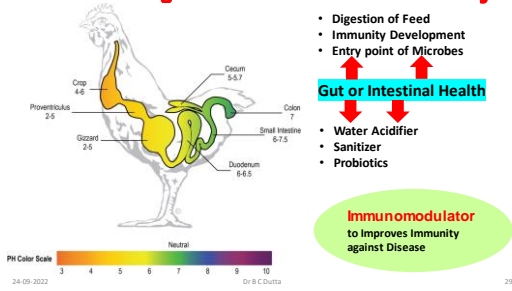
Ground Reality

**Day-to-Day Health Management**



Disinfection

### Health Management – Gut Health & Immunity



- Digestion of Feed
  - Immunity Development
  - Entry point of Microbes
- Gut or Intestinal Health**
- Water Acidifier
  - Sanitizer
  - Probiotics

**Immunomodulator**  
to Improves Immunity  
against Disease

### Protection from Disease



Implementation of 100% Biosecurity

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### Protection from Disease



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### Protection from Disease



Implementation of 100% Biosecurity



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### Protection from Disease through Vaccination

- Vaccination: full protection against Diseases
- Vaccine reduce severity of disease & minimize mortality



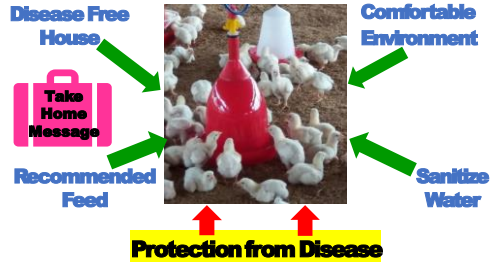
- Vaccine Schedule: Disease history & strain available
- Vaccine Cold Chain Maintenance
- Vaccine Application: Eye drop or Water or Injection

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### Need of the Chick for Desired Performance



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### Feed Quality vs Broiler Performance?

Did our Broiler getting the Breed Recommended Feed Quality? → **NO**

Anyone Not agree with me? → Why 3 Varieties of Feed in all Company? Which one is Breed Specific?

Fact: we produce Feed as per situation, Farming practice and as per our limitations → Then, why we are expecting 2Kg in 30 days ?

**We need to offer 100% recommended Nutrition to our Chicks to get the Genetic Potential Performance of 2Kg in 30 days**

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**THANK YOU**

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