VENCOBB430 BREEDER

MANAGEMENT SUPPLEMENT

Vencobb

Introduction

Venco Research & Breeding Farm Private Limited Pune (Venco), has been at the forefront of foreseeing market changes and working on the needs of changing and evolving broiler market in India. Venco developed Vencobb100 initially in the year 1981 to cater to the market needs of that time. Vencobb400 was launched in the year 2001 after 10 years of intensive research to meet the changing market needs of that period. Considering the needs of changing and evolving market in the country and Venco's commitment of providing products that are most suitable and viable for the Indian market, Vencobb430 was launched in the year 2014. Vencobb430 is the result of continuous and painstaking research and development at Venco. Vencobb products have been market leaders consistently over last three and half decades. Venco's policy of breeding birds in open sided houses and providing exactly similar conditions of husbandry and feed and feeding practices as that of the customers' has resulted in complete acclimatization of Vencobb products into Indian agro-climatic conditions and husbandry practices. The unique feature of Vencobb products is their robustness and consistent performance over the years.

Vencobb430 is the most prolific breeder with least feed cost per hatching egg and chick. This bird is most suitable to all kinds of integrated poultry farming models existing in India. Vencobb430 has excellent feed conversion and meat yield matching the needs of different segments of the broiler industry in India. Another feature of Vencobb430 is its uniformity at broiler level which is the result of focused and consistent ongoing research and development activities at Venco.

Venco Research & Breeding Farm Private Ltd. provides this breeder management manual as a guide for utilizing optimum genetic potential of Vencobb430 breeders. Our recommendations in this manual are based on current scientific knowledge and practical experience of managing Vencobb430. Body weight, Feed and Production standards provided in this manual are based on the actual performance records of flocks reared and liquidated from the cage system with open sided houses exposed to vagaries of nature during summer, rainy and winter seasons in different regions of the country.

The data provided in this manual gives an indication of what can be achieved under optimum management and feeding practices. However, performance gets substantially influenced by flock management, health status, nutritional variation etc. Therefore contents presented in this manual are for use as a guide for better performance and in no way constitute guarantee/warranty of performance. Please contact Vencobb Technical support team members for further assistance.

CONTENTS

A. Vencobb430 - Performance Objectives

Performance Parameters	Summer Laying	Winter Laying
Growing Depletion (0-23 Weeks)	7.0%	7.0%
Laying Depletion (24 -66 Weeks)	7.2%	7.0%
Age at 5% Production (Weeks)	24	25
Age at 50% Production (weeks)	26	27
Age at 80% Production (weeks)	28	29
Age at Peak Production (Weeks)	31	33
Age at Flock Liquidation (Weeks)	66	66
Total Eggs per HH	195.5	193.0
Hatching Eggs per HH	182.3	182.3
Chicks per HH	158.0	158.0
Average Hatchability%	86.6	86.6
Body weight at 24 weekend – Female (grams)	2900	3040
Body weight at Culling – Female (grams)	4010	4160
Body weight at 24 Weekend – Male (grams)	3480	3480
Body weight at Culling – Male (grams)	4900	4900

Feed Consumption (Female + Male)

Parameters	0 - 66 Weeks		24 - 66 Weeks	
Season	Summer Laying	Winter Laying	Summer Laying	Winter Laying
Feed per Egg (grams)	300	309	241	248
Feed per HE (grams)	322	327	259	263
Feed per Chick (grams)	372	378	299	303
Feed per Bird (kg)	58.7	59.7	47.2	47.9

B. Flock Management Highlights

1. Recommended brooding conditions like temperature, humidity, ventilation, light, feed and water management must always be implemented and closely monitored. It will ensure that physiological requirements of chicks are met and they get optimum comfort.
2. Research and field results have shown that current feed specifications have a positive impact on flock uniformity, fleshing, feathering and breeder performance.
3. Right quantity of feed allocation coupled with equal distribution of feed, would support good body weight uniformity and in turn are essential to achieve best sexual uniformity and excellent performance.
4. Daily feed intake and water consumption need to be monitored regularly for maintaining flock uniformity. Randomly checking crop fill immediately after birds have finished the feed, is one way to evaluate water and feed consumption.
5. Biosecurity should always be top priority. Any compromise on Biosecurity measures and laxity in its implementation can affect Flock health which is essential to achieve breed's genetic potential.

C. The Essentials of good Flock Management

Target body weight and efforts to achieve best possible uniformity should start right from chicks placement at brooding.

1. Body Weight and uniformity target should be achieved at 1, 4, 8, 12 and 16 weeks of age.
2. Sample weighing at every week and grading at 4^{th}, 9^{th}, and 15^{th} week for females and 4^{th}, 9^{th} and 14^{th} week for males are advised. During first three weeks of age, twice a week sample weighing is essential. ***Please refer to Grading illustration given in Annexure I***
3. Weak birds should be separated from good birds on weekly basis.
4. Care should be taken to avoid overweight issues between 3 and 16 weeks of age.
5. Body weight increase of around 36% to 38% is necessary between 16 and 20 weeks of age which could be achieved by increasing feed by 42% to 44% between 16 and 20 weeks of age.
6. Light stimulation is a very important part of Bird's sexual maturity which decides flock performance.
7. More than 85% body weight uniformity with recommended body weight, good fleshing and pelvic fat deposition are essential to get uniform response to light stimulation from 100% of both female and male birds in a flock. It leads to, best possible sexual uniformity with synchronised maturity and peak production.

D. Flock Grading

Once feed restriction is started, variation in body weight gain among chicks occurs due to competition for limited amount of feed available. As age advances, variation in body weight among birds in a flock keeps increasing. Higher the uniformity, better the productivity. Hence, to minimise variation, it is recommended to keep a watch on weight gain and to take sample weight on weekly basis. Further, birds should be graded three times between three and sixteen weeks of age based on body weight. Grading should not be a remedy for shortcomings in flock management. Largely birds should be grouped into Standard weight grade, Above Standard weight grade and Below Standard weight grade. ***Please refer to illustrations given in Annexure I***

First grading in Females: It is recommended to take up first grading of Females during 4th week after grading Males. Ideally weight range for Standard Body weight Grade should be + /- 10% of standard weight. That is, plus 50 grams and minus 50 grams of Standard weight. Birds which weigh more than 50 grams of standard weight fall into the category of Above Standard weight. Similarly, birds which weigh less than 50 grams of standard body weight fall into the category of Below Standard weight.

Standard Body weight group (STD): Birds which fall into this category by and large remain within this group throughout growing phase and are easy to manage.

Above Standard Body weight group (A): Birds in this group gained more weight than standard weight because these birds were able to eat more feed than an average bird while on full feed. When such birds are identified and kept separate, competition for feed increases among those birds. Hence, managing this group needs good attention from flock supervisor.

Below Standard Body weight group (B): Birds in this category are relatively easy to manage. By giving additional feed as per the redrawn target body weight, this group can be easily guided into standard weight group.

Overweight group (A+): Birds in this category were eating much more feed than an average bird while on full feed. Hence, they are overweight. When these birds are separated from other birds and feed restriction is started, it is likely that they get less feed compared to free feeding time. It can cause stress, weight gain becomes slow, some birds may lose weight after a week or two. This group is most difficult to manage. Hence, this group needs close observation. At every weekend, sample weight needs to be analysed and quick corrective steps should be taken if weight loss is observed. If neglected, these potentially good breeders will become poor breeders. Further, it is observed that, on account of severe feed restriction and stress, some

birds in this group, may develop reverse peristaltic movement of intestine leading to telescoping of intestine in the ileum and caecum junction. Such birds develop prolapse of vent, attracting the attention of other birds and resulting in vent pecking, bleeding, pulling out of intestine and death of such birds.

Weak or underweight group (C): Birds in this category had free access to feed until first grading. In spite of that, these birds are weak and underweight. Reasons that could be attributed to are, weak chicks to begin with at day one, dehydration, improper brooding condition, less feed or water consumption, severe vaccine reaction, rough handling, faulty beak trimming, lameness, digestive disorders, mild or subclinical infections. Such birds may not become good breeders if neglected. It is advisable to closely examine these birds to ascertain the problems or reasons for weakness. Separately brooding weak chicks at day one, ensuring easy access to sanitised lukewarm water and clean crumble feed, checking crop fill within 5 hours of brooding, observing chicks' comfort, regularly examining litter to identify any unusual changes in faecal droppings and looking for vent pasting should be part of early brooding management. Chicks which develop pasty vent in the first week due to high early brooding temperature usually recover within 10 to 14 days. Further, separating and treating lame chicks as and when noticed, properly supervising vaccination and beak trimming with optimum recommended blade temperature, ensuring proper maintenance of the beak trimmer are advised. Sample weighing twice a week until first grading will help to monitor weight gain.

All the above suggested measures will help in preventing chicks from becoming weak and will support weak chicks to improve faster. If chicks in this group are not attended to and corrective measures are not taken up in time, they will not become good breeders later. In addition to it, they are susceptible to pick up infection and become potential source of infection to other good chicks. Lame chicks that do not respond to treatment, severely beak trimmed chicks, severely dehydrated chicks should be culled. Number of chicks in this group should not be more than 1-2% of the flock. Otherwise, it indicates severe deficiency in early chick management.

Follow up action: A thumb rule before and after every grading is, taking sample weight and tabulating it as illustrated. For both below standard weight and above standard weight groups, redrawing of target weight from 4th week to 8th week, closely monitoring weekly weight gain, comparing it with redrawn target weight, readjusting weekly feed increment are essential steps to guide them into standard weight group.

Second Grading in Females: It is advisable to go for second grading at the beginning of 9th week after grading males. Ideal weight range for Standard weight

group is +/- 7.5% of standard weight. That is, plus 75 grams and minus 75 grams of standard weight. Birds which weigh more than 75 grams of standard weight fall into the category of Above Standard weight. Similarly, birds which weigh less than 75 grams of standard body weight fall into the category of Below Standard weight. All the follow-up actions and recommendations made for first grading hold good for second grading also.

Third Grading in Females: It is advisable to go for third grading at the beginning of 15^{th} week. Ideal weight range for Standard weight group is +/- 5% of standard weight. For practical convenience, one can consider plus 100 grams and minus 100 grams of standard weight. Birds which weigh more than 100 grams of standard weight fall into the category of Above Standard weight. Similarly, birds which weigh less than 100 grams of standard body weight fall into the category of Below Standard weight. If sample weight before grading indicates higher flock average weight than recommended standard weight, then actual average weight should be adopted as standard weight. All the follow-up actions and recommendations made for first and second grading hold good for third grading as well.

Special care for underweight birds: Between underweight grade and all other grades there could be a difference of 5 - 8 grams of feed per bird per day. Hence, while carrying out second and third grading, birds in the underweight grade should be treated as a separate flock and grading is done. In next four or five weeks, these birds could be guided to standard grade without disturbing other grades.

Feed allocation after grading: After completing first grading, standard feed increase of 4-5 grams should be given to all grades. Before carrying out second and third grading, equal feed allocation to birds in A+, A, standard and B grades is advised. It allows transfer of birds from one grade to other grade without disturbing feed allowance. Thereby all the birds will get feed increment before grading and therefore next feed increment is recommended from the beginning of next week depending on target weight drawn. In subsequent weeks, feed increase should be decided based on body weight progress in comparison to target weight. Feed increase could be halted or restricted to one gram for one or two weeks when body weight increase is much more than the target weight. Similarly, feed increase could be enhanced when increase in body weight is less than the target weight. Keeping accurate count of birds in each grade or line or pen, regularly calibrating weighing scales, evenly distributing allocated quantity of feed are very essential factors for the success of efforts to improve uniformity in a flock.

E. A note on Seasonal effect on Maturity and Breeder performance

Flocks are light stimulated between 21 and 24 weeks of age with the objective of aiding them to attain **sexual maturity and start laying eggs**. It is observed that, some flocks reach 5% HD production (HDP) as early as 23rd week (as in April and May), some flocks reach 5% HDP in 24th week (as in February, March and June), some flocks reach 5% HDP in 25th week (as in January and July) whereas some flocks reach 5% HDP as late as 26th week (as in September, October, November and December). It indicates, age at sexual maturity of a flock in **open sided housing system** is greatly influenced by duration and intensity of natural light to which a flock is exposed during growing period particularly between 8 to 20 weeks of age. ***Please refer to Charts no. 1 & 2 in Annexure III***

a. Flock exposed to higher intensity and /or longer duration of light both during growing phase and maturation phase reach 5% HDP very early.
b. Flock exposed to lower intensity and /or shorter duration of light both during growing phase and maturation phase, reach 5% HDP very late.
c. Flock exposed to higher intensity light during growing phase but lower intensity light during maturation phase reach 5% HDP late.
d. Flock exposed to lower intensity light during growing phase but higher intensity light during maturation phase, reach 5% HDP just in time.

In tropical region like India, **February to June months** have longer day length and higher light intensity whereas **October to January** months have shorter day length and lower light intensity. Rainy season, particularly from **July to September,** has moderate effects both on day length and light intensity. Presence of thick dark clouds reduce intensity of light to a great extent. Generally, early onset of lay is seen in April and May months, and late onset of lay is seen in July, August, September, October, November and December. Normal onset of lay is seen in February, March and June. Seasonal effects are more pronounced in North India than in South India. Season also affects age at peak production.

Following measures are suggested to make birds more receptive to light stimulation and thereby minimise seasonal effect on maturity of birds in open sided houses. By adopting such measures, early maturity issue in Summer and late maturity problem in Winter or rainy season can be prevented to a large extent.

a. Dark out or semi dark out growing facility from 5 to 21 weeks of age.
b. Dark curtain should be removed at the end of 21st week (147 day).

c. Flocks brooded in the months between February and July are considered **out-season flocks** and are maintained at higher body weight profile
d. Flocks brooded in the months between August and January are considered **in-season flocks** and are maintained at standard body weight profile

Hence, two different body weight profiles, feeding standards and production standards are presented in this supplement.

1. **Summer Brooding/Growing and Winter laying – out season flocks**
2. **Winter brooding/Growing and Summer laying – in season flocks**

F. Rearing Guide from 1 – 14 Weeks

1. Weights recommended in this supplement correspond to the weekly age, based on the chick placement date. Between first week and until full feed is given, body weight includes feed in the crop (wet body weight). From the starting of feed restriction until culling, weekly weights should be taken when the crop is empty (dry body weight) or at least 7 to 8 hours after the feeding.
2. However, right from day one until culling, it is recommended to give feed only after sample weighing for data accuracy.
3. Every week, weight should be taken at the same time of the day. During first three weeks of age, it is recommended to take body weight twice per week.
4. Female Feeding program along with weekly standard body weight, weekly weight and feed increase from day one until housing are given in ***Table No. 1 & 2 in Annexure II***
5. Feed amount per bird per day given in the corresponding tables in this manual is based on Vencobb nutritional recommendations and is for guide purposes only. Quantity needs to be adjusted based on actual nutritional density of the feed to achieve target body weight.
6. Chick feed is advised from day one until end of 4^{th} week. Grower feed is recommended from 5^{th} week until end of 15^{th} week.
7. Weekly feed increment recommended is 1 - 3 grams per bird between 5 and 14 weeks. Lower density feed requires higher feed increment.
8. When uniformity is below 70% with considerable number of overweight and or underweight birds in a flock, feed increment may be in the range of 0 – 5 grams.
9. Further, when birds are under stress, some amount of energy is utilised by the birds to overcome the same. Therefore, extra feed increases should be considered during transfer, vaccination, grading, cold temperatures, or when the birds are experiencing stress due to any other reason.

10. Male management differs in many aspects when compared to female management. Aspects of body weight standards, feed allocation, feed increment, nutrient requirement, selection procedure, preparing males for semen donation, semen quality aspects, procedure for semen milking and artificial insemination, monitoring body condition during production, troubleshooting male fertility issues etc., need to be dealt separately in detail. Therefore, all aspects of Male management are given separately in "Male Management Supplement". ***Please refer to Male Management Supplement*.**
11. However, for parallel reference, Male Feeding program along with weekly standard body weight, weekly weight and feed increase from day one until housing are given in ***Table No. 3 & 4 in Annexure II***

G. Fleshing, Fat deposition and Light stimulation Guide from 15 to 24 Weeks

Preparing a flock from 14 weeks until housing requires careful and skilled approach. During this phase of growing, birds are prepared for maturation with faster weight gain along with proper fleshing and some amount of fat deposition in pelvic region. Thereby, birds become receptive for light stimulation. From the beginning of 22 weeks of age, once birds attain desired body weight along with maintaining good uniformity, flock should be light stimulated. During next 3 - 4 weeks, all the reproductive organs fully develop and females reach onset of lay and males start producing semen. Following are the essential steps in guiding a flock to maturation.

1. After completing third grading, birds should be moved grade wise to laying house by 15 or 16 weeks of age.
2. Feed increment between 15 to 20 weeks should be accelerated to achieve the target weight, fleshing and fat deposition at start of light stimulation. Thumb rule is to give cumulative feed increment of 51% - 55% and to achieve weight gain of 46% – 47% between 15 and 20 weeks.
3. Changeover from grower feed to developer feed is recommended at 16^{th} week and be given until 21 week end or until beginning of light stimulation.
4. Feed increase plan given in this supplement applies to scenarios wherein birds are on target body weight or slightly below target with good uniformity at 15 weeks of age. Flocks with poor uniformity (less than 70%) require higher feed increment.
5. Bodyweight increase between 16 and 20 weeks should be in the range of 36% - 38% for birds in the standard body weight group, 38 - 40% for birds in the below

standard body weight group and 35% - 36% for birds in the above standard body weight group by ensuring 41% - 44% feed increment during the same period.

6. When such a flock is light stimulated, it leads to Uniform Sexual Maturity of birds.
7. Lighting in breeder production is a critical factor for the reproductive success of the stock. Lighting signals are used by the hen to initiate and sustain secretion of reproductive hormones. Good quality LED lights producing up to 100 Lux at bird level is recommended.
8. As indicated earlier, dark-out curtains should be removed at the end of 21st Week (147 days).
9. Light stimulation should be given from the beginning of 22 week (148 day) of age provided flock has good uniformity and standard or adopted average body weight.
10. When a flock is underweight, light stimulation should be delayed by a week or two.
11. Increment in light stimulation to Summer laying flocks (in-season flocks) is advised in a gradual manner from 22 to 26 weeks (from 12 hours to 16 hours).
12. Increment in light stimulation to Winter laying flocks (out-season flocks) is advised in a faster manner from 22 to 24 weeks (from 13 hours to 16 hours).
13. First two hours of artificial light should be given in the morning.
14. Schedule of light stimulation applicable both for male and female birds in out-season and in-season flocks is given in ***Table No. A & B.***
15. Pre-breeder feed is advised from point of light stimulation until 5 % HDP.
16. Low content of calcium (1.2%) in pre-breeder feed helps in preventing triggering of Calcium Tetany during early phase of production.
17. At housing (first day of 24th week), all grades should be on equal feed allowance per day. If some birds are still on higher feed allowance, such birds are kept separately in the beginning of cage line or in separate cage line.
18. From the point of light stimulation until 5% HDP, feed increment should be limited to 3 - 4 grams per bird per week. It is to prevent birds from becoming over weight, minimise double yolk eggs and high mortality during early phase of production.
19. It is essential for males and females to have synchronised sexual maturity (simultaneous) at housing. Delay in male maturity leads to more percentage of infertile eggs and low hatchability during first 10 -12 weeks of production.
20. Therefore, equal importance should be given to Male management in terms of grading, uniformity, feed allocation and attaining standard body weight. Thorough selection for good 11% males before light stimulation and 10% males while housing should be part of male management. ***Please refer to Male Management Supplement.***

Table No. A & B

Lighting Schedule during Growing

Age (weeks)	Summer Laying	Winter Laying	Light Intensity
	No. of Hours	No. of Hours	
First week	24 Hours	24 Hours	Natural + 60 - 80 Lux Artificial light
2 - 3 weeks	16 Hours	16 Hours	Natural + 60 - 80 Lux Artificial light
4 weeks	12 Hours	12 Hours	Natural / 60 - 80 Lux Artificial light
5 - 21 weeks	Daylight	Daylight	As low as possible by adopting brownout housing / 5 - 8 Lux *

Lighting Schedule for Flock Maturity- Open Sided House **

Age (weeks)	Summer Laying	Winter Laying	Light Intensity
	No. of Hours	No. of Hours	
21st weekend (147 day)	Remove Brown or black curtain (open sided house only)		
22	12 Hours	13 Hours	Natural + 80 – 100 Lux Artificial light
23	13 Hours	14 Hours	Natural + 80 – 100 Lux Artificial light
24	14 Hours	16 Hours	Natural + 80 – 100 Lux Artificial light
25	15 Hours	16 Hours	Natural + 80 – 100 Lux Artificial light
26	16 Hours	16 Hours	Natural + 80 – 100 Lux Artificial light

* For closed house, only 8 hours of lighting with 5 – 8 Lux is enough

**For birds in closed house, lighting schedule suggested for Summer laying flock but up to a peak lighting duration of 15 hours is to be adopted

H. Production Guide from 5% Hen Day production to Culling

Highlights of production phase include managing a flock from onset of lay into peak production (feed increase to support production and maintenance) and from peak to culling (feed withdrawal to regulate weight gain and support production). Vital production parameters like total Hatching eggs and Chicks per Hen are influenced to a great extent by how efficiently flock is managed during production phase.

Feed increment from 5% HDP in to Peak production: First feed increment during production should be at 15% HDP just with 3 grams per bird. Next increment again is only 3 grams per bird given at 25% HDP, followed by 6 grams feed increase at 35% HDP. Thereafter, higher feed increment of 8 – 10 grams per bird is suggested from 45% HDP onwards for every 10% increase in HDP until 65%. Last feed increment of 5 – 6 grams is given at 75% HDP. Smaller feed increment during initial phase of production greatly helps in regulating body weight gain, double yolk eggs and high mortality witnessed from 5% HDP until peak HDP.

Feed withdrawal from Peak production until culling: It is recommended to start withdrawing of feed from peak at 35 weeks of age when egg mass starts declining. Thereafter, 2 grams of feed per bird day is withdrawn at every 8 – 10 weeks interval.

1. Suggested feed increase from the point of 5% Hen day production into peak production both in Summer and Winter laying flocks is given as a guide in ***Table No. C,D & E.***
2. However, it should be noted that, feed allocation at 5% HD production depends upon average body weight at point of lay, season, type of housing and actual nutrient density of the feed. Therefore, range of feed intake is also suggested.
3. From Housing until culling, desired weekly body weight gain, recommended daily feed intake and feed withdrawal program from peak production to flock liquidation, are given in ***Table No. 5 & 6 in Annexure II.***
4. Flock production performance details like weekly Production increase from 5% HD to Peak HD%, weekly Production decline from Peak HD% to culling age, Hatching eggs% (HE%), weekly and cumulative Total eggs (TE), Hatching eggs (HE) and Chicks, are given in ***Table No.7 & 8 in Annexure II.***
5. Weekly Egg weight, Egg mass, Chick weight, Fertility%, Hatchability% and Hatch of Fertile % are given in ***Table No. 9 & 10 in Annexure II.***
6. Charts on seasonal effect on maturity and onset of production, body weights, feed increments during growing and laying phase, Hen week production%, HE%, Hatchability%, are given in ***Annexure III.***

Table No. C & D

Feed Increment from 5% HDP into Peak

SUMMER LAYING (Feb-Jul)

HD%	Feed intake (grams)			Energy in take (K.Cal)	
	/bird/day	Increase	Range	/bird/day	Range
5%	111	----	107 – 115	311	300 – 320
15%	114	3	110 – 118	319	310 – 330
25%	117	3	113 – 121	328	320 – 340
35%	123	6	119 – 127	344	330 – 355
45%	131	8	127 – 135	367	355 – 380
55%	140	9	136 – 145	392	380 – 405
65%	149	9	145 – 154	417	400 – 430
75%	156	7	152 – 160	437	425 – 450

WINTER LAYING (Aug-Jan)

HD%	Feed intake (grams)			Energy in take (K.Cal)	
	/bird/day	Increase	Range	/bird/day	Range
5%	116	----	113 – 119	325	316 – 333
15%	119	3	115 – 123	333	322 – 344
25%	122	3	118 – 126	342	330 – 353
35%	128	6	124 – 132	358	347 – 370
45%	136	8	132 – 140	381	370 – 392
55%	145	9	141 – 151	406	395 – 423
65%	154	9	149 – 159	431	417 – 445
75%	160	6	156 – 164	448	437 – 460

* When HD% production reaches next level as given in the first column, corresponding feed as indicated in the second column should be given.
* Recommended feed amount is optimum when birds are in temperature comfort zone, that is, between 20° C and 30° C and humidity of around 50% RH.
* When temperature rises above comfort zone, feed consumption per day may reduce by 2 – 4 grams and if temperature dips below comfort zone, 2 – 4 grams of additional feed may be needed to be given. We recommend crumble feed.
* Range in feed intake is provided to suit various situations.

Table No. E

Feed increment pattern during laying from 5% HD to Peak Production – A Guide

SUMMER LAYING FLOCK					WINTER LAYING FLOCK			
HD%	Feed (g/b/d)	HD%	Feed (g/b/d)		HD%	Feed (g/b/d)	HD%	Feed (g/b/d)
5	111	45	131		5	116	45	136
6	111	46	131		6	116	46	136
7	111	47	131		7	116	47	136
8	111	48	131		8	116	48	136
9	111	49	131		9	116	49	136
10	111	50	131		10	116	50	136
11	111	51	131		11	116	51	136
12	111	52	131		12	116	52	136
13	111	53	131		13	116	53	136
14	111	54	131		14	116	54	136
15	114	55	140		15	119	55	145
16	114	56	140		16	119	56	145
17	114	57	140		17	119	57	145
18	114	58	140		18	119	58	145
19	114	59	140		19	119	59	145
20	114	60	140		20	119	60	145
21	114	61	140		21	119	61	145
22	114	62	140		22	119	62	145
23	114	63	140		23	119	63	145
24	114	64	140		24	119	64	145
25	117	65	149		25	122	65	154
26	117	66	149		26	122	66	154
27	117	67	149		27	122	67	154
28	117	68	149		28	122	68	154
29	117	69	149		29	122	69	154
30	117	70	149		30	122	70	154
31	117	71	149		31	122	71	154
32	117	72	149		32	122	72	154
33	117	73	149		33	122	73	154
34	117	74	149		34	122	74	154
35	123	75	156		35	128	75	160
36	123	76	156		36	128	76	160
37	123	77	156		37	128	77	160
38	123	78	156		38	128	78	160
39	123	79	156		39	128	79	160
40	123	80	156		40	128	80	160
41	123	81	156		41	128	81	160
42	123	82	156		42	128	82	160
43	123	83	156		43	128	83	160
44	123	84	156		44	128	84	160

I. Annexure I: Grading illustrations

J. Annexure II: Tables

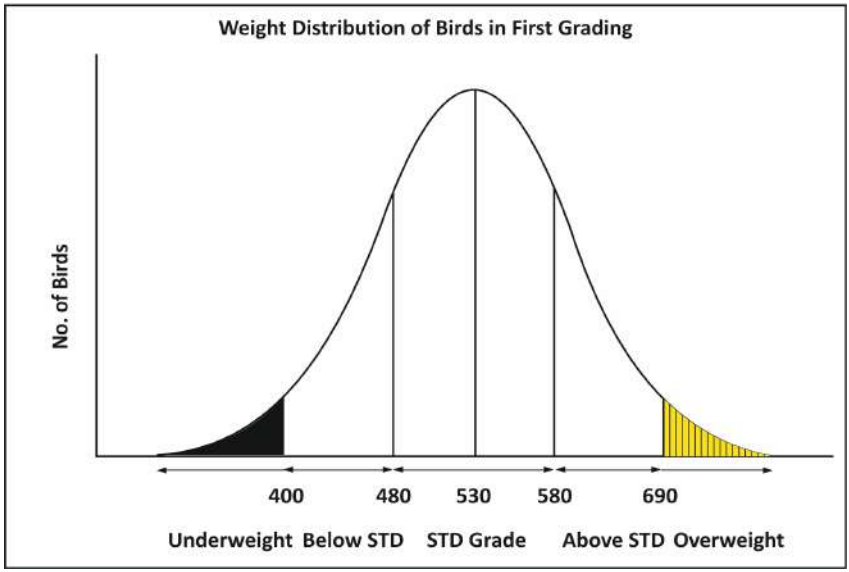
K. Annexure III: Charts

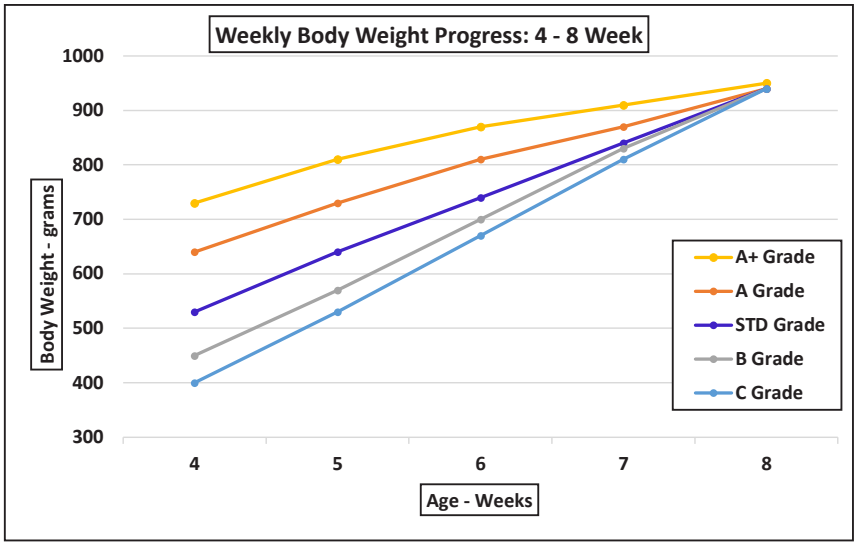
L. Annexure IV: Key points to remember

M. Annexure V: Hatching Egg grading guide

I. Annexure I

Grading Illustration - First Grading





Grading Summary – First Grading

Age: 4th Week, Flock Details: XYZ 01, No. of Birds: 10400

Grades	STD Weight	Average Weight	Min Weight	Max Weight	No. of Birds	Sample Size	Uniformity %
A+	530	730	700	750	180	20	80
A	530	640	590	690	1210	120	90
STD	530	530	480	580	7890	800	95
B	530	450	400	470	910	100	90
C	530	400	380	440	60	20	75

Weekly grade wise body weight progress plan: 4th week - 8th week – an example

Grade A+

Age in Weeks	STD Weight	Target Weight	Target Weight gain	Actual Weight	Actual Weight gain	STD Feed	Actual Feed	Uniformity %
4	530	730	130	730	130	40	40	80
5	640	810	80	810	80	44	44	78
6	740	870	60	870	60	47	45	75
7	840	910	40	920	50	49	46	73
8	940	950	40	970	50	51	49	70

Grade A

Age in Weeks	STD Weight	Target Weight	Target Weight gain	Actual Weight	Actual Weight gain	STD Feed	Actual Feed	Uniformity %
4	530	640	130	640	130	40	40	90
5	640	730	90	730	90	44	44	85
6	740	810	80	800	70	47	46	85
7	840	870	60	870	70	49	47	80
8	940	940	70	940	70	51	50	70

Grade STD

Age in Weeks	STD Weight	Target Weight	Target Weight gain	Actual Weight	Actual Weight gain	STD Feed	Actual Feed	Uniformity %
4	530	530	130	530	130	40	40	95
5	640	640	110	640	110	44	44	95
6	740	740	100	740	100	47	47	90
7	840	840	100	840	100	49	49	85
8	940	940	100	940	100	51	51	80

Grade B

Age in Weeks	STD Weight	Target Weight	Target Weight gain	Actual Weight	Actual Weight gain	STD Feed	Actual Feed	Uniformity %
4	530	450	130	450	130	40	40	90
5	640	570	120	560	110	44	45	85
6	740	700	130	690	130	47	49	80
7	840	830	130	820	130	49	50	80
8	940	940	110	940	120	51	51	78

Grade C

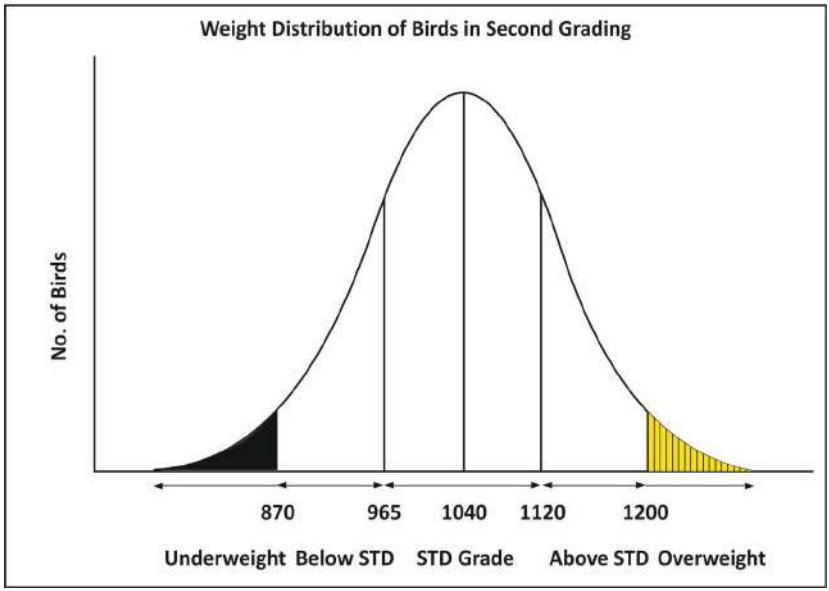
Age in Weeks	STD Weight	Target Weight	Target Weight gain	Actual Weight	Actual Weight gain	STD Feed	Actual Feed	Uniformity %
4	530	400	130	400	130	40	40	75
5	640	530	130	520	120	44	45	80
6	740	670	140	650	130	47	50	75
7	840	810	140	800	150	49	52	80
8	940	940	130	940	140	51	53	80

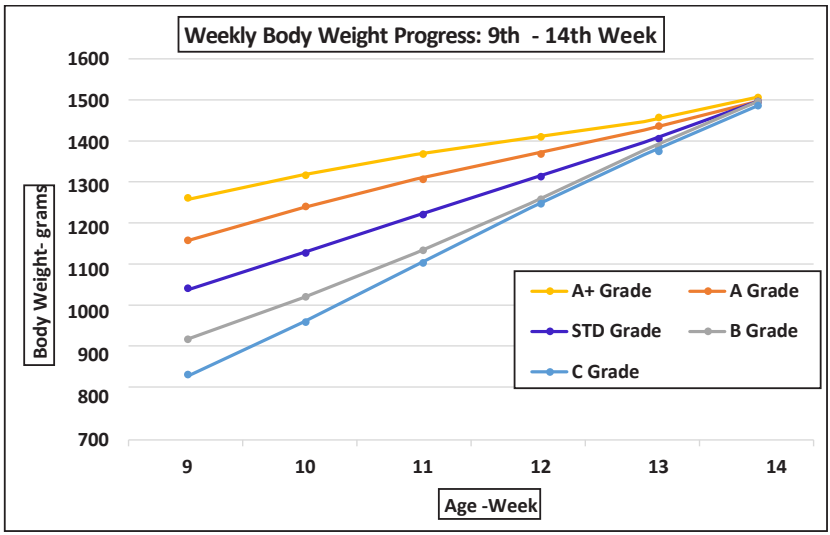
Weekly flock body weight progress summary: 4th week to 8th week

Age in Weeks	STD Weight	Target Weight	Target Weight gain	Actual Weight	Actual Weight gain	STD Feed	Actual Feed	Uniformity %
4	530	539	130	539	130	40	40	86
5	640	647	108	646	105	44	44	85
6	740	747	100	744	100	47	47	81
7	840	844	97	843	100	49	49	80
8	940	940	96	941	95	51	51	76

* Steep increase in feed allocation to birds in the below standard weight group or complete withholding of feed to birds in the above standard weight group to improve flock uniformity is never recommended.
* Body weight increase in higher body weight groups should be slowed down and that in lower body weight group should be faster.
* Grading certainly helps in improving flock uniformity but it should not be a remedy for shortcomings in feeder space, feed distribution, environment and other factors.

Grading Illustration - Second Grading





Grading Summary – Second Grading **

Age: 9th Week, Flock Details: XYZ 01 No. of Birds: 10150

Grades	STD Weight	Average Weight	Min Weight	Max Weight	No. of Birds	Sample Size	Uniformity %
A+	1040	1260	1220	1300	180	20	80
A	1040	1160	1130	1200	1180	120	90
STD	1040	1040	965	1120	7850	800	95
B	1040	920	870	960	880	100	90
C	1040	830	770	860	60	20	75

Weekly grade wise body weight progress plan: 9th week - 14th week – an example

Grade A+

Age in Weeks	STD Weight	Target Weight	Target Wt gain	Actual Weight	Actual Wt gain	STD Feed	Actual Feed	Uniformity %
9	1040	1260	100	1260	80	52	52	80
10	1130	1320	60	1300	40	53	52	78
11	1220	1370	50	1350	50	54	53	75
12	1310	1410	40	1400	50	56	54	78
13	1400	1450	40	1450	50	58	56	75
14	1500	1510	60	1520	70	61	59	75

Grade A

Age in Weeks	STD Weight	Target Weight	Target Wt gain	Actual Weight	Actual Wt gain	STD Feed	Actual Feed	Uniformity %
9	1040	1160	100	1160	90	52	52	85
10	1130	1240	80	1235	75	53	53	85
11	1220	1310	70	1300	65	54	54	80
12	1310	1370	60	1360	60	56	55	85
13	1400	1430	60	1420	60	58	57	85
14	1500	1500	70	1500	80	61	60	80

Grade STD

Age in Weeks	STD Weight	Target Weight	Target Wt gain	Actual Weight	Actual Wt gain	STD Feed	Actual Feed	Uniformity %
9	1040	1040	100	1040	100	52	52	95
10	1130	1130	90	1130	90	53	53	85
11	1220	1220	90	1220	90	54	54	85
12	1310	1310	90	1310	90	56	56	80
13	1400	1400	90	1400	90	58	58	85
14	1500	1500	100	1500	100	61	61	90

Grade B

Age in Weeks	STD Weight	Target Weight	Target Wt gain	Actual Weight	Actual Wt gain	STD Feed	Actual Feed	Uniformity %
9	1040	920	100	920	100	52	54	90
10	1130	1020	100	1020	100	53	56	95
11	1220	1130	110	1130	110	54	57	90
12	1310	1250	120	1250	120	56	58	90
13	1400	1380	130	1380	130	58	59	85
14	1500	1500	120	1500	120	61	61	80

Grade C

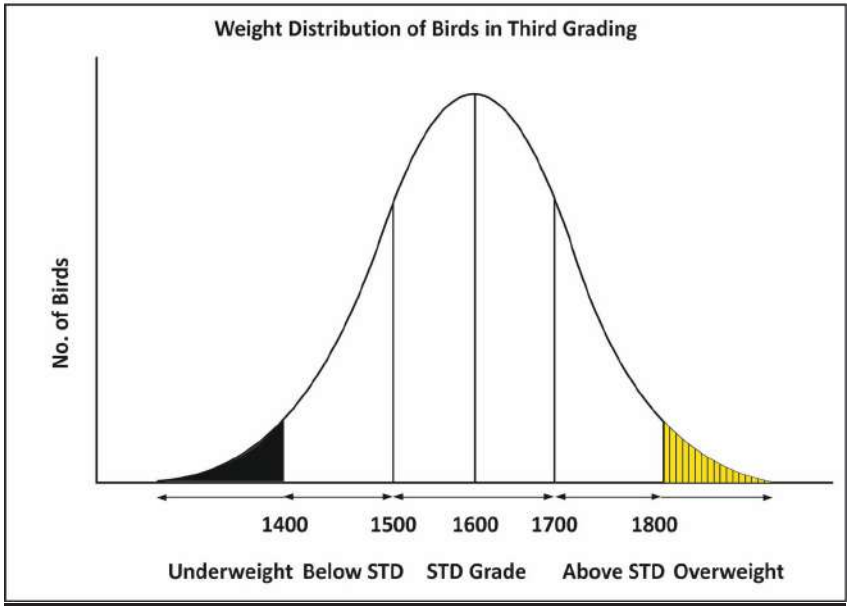
Age in Weeks	STD Weight	Target Weight	Target Wt gain	Actual Weight	Actual Wt gain	STD Feed	Actual Feed	Uniformity %
9	1040	830	110	830	100	52	57	75
10	1130	960	130	960	130	53	60	80
11	1220	1100	140	1100	140	54	61	80
12	1310	1240	140	1240	140	56	61	85
13	1400	1370	130	1370	130	58	62	85
14	1500	1490	120	1490	120	61	64	80

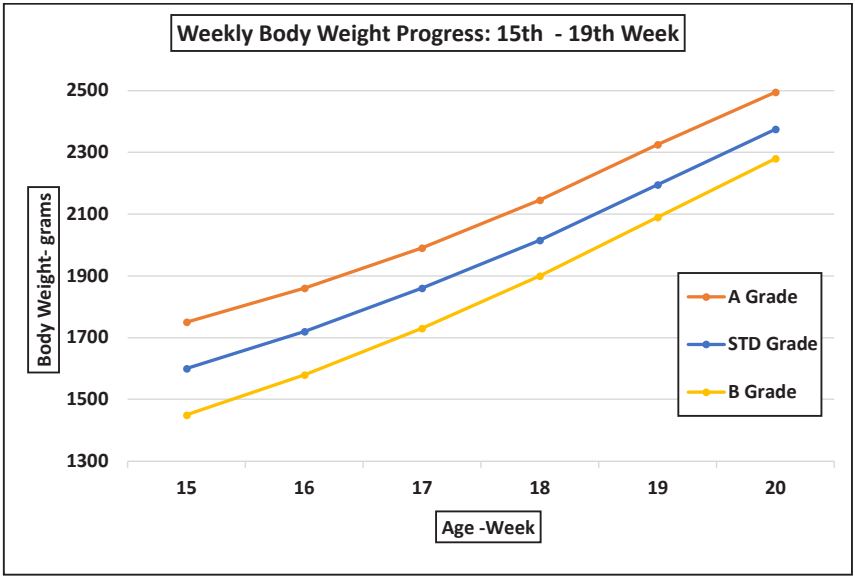
Weekly flock body weight progress summary: 9th week to 14th week

Age in Weeks	STD Weight	Target Weight	Target Wt gain	Actual Weight	Actual Wt gain	STD Feed	Actual Feed	Uniformity %
9	1030	1046	100	1046	100	52	52	75
10	1110	1135	90	1134	90	53	53	80
11	1190	1224	90	1223	90	54	54	80
12	1270	1313	90	1311	90	56	56	83
13	1360	1402	90	1401	90	58	58	85
14	1460	1500	100	1500	100	61	61	85

** Time between second grading and third grading is very ideal to improve the uniformity to a maximum level. Birds in the lower and higher body weight category should be brought to standard weight category by adjusting feed increase and closely monitoring the flock on weekly basis.

Grading Illustration - Third Grading





Grading Summary – Third Grading **

Age: 15th Week, Flock Details: XYZ 01 No. of Birds: 9880

Grades	STD Weight	Average Weight	Min Weight	Max Weight	No. of Birds	Sample Size	Uniformity %
A	1610	1750	1710	1800	1210	120	90
STD	1610	1600	1500	1700	7790	800	95
B	1610	1450	1400	1490	880	100	90

Weekly grade wise body weight progress plan: 15th week - 20th week – an example

Grade A

Age in Weeks	STD Weight	Target Weight	Target Weight gain	Actual Weight	Actual weight gain	STD Feed	Actual Feed	Uniformity %
15	1610	1750	110	1750	100	66	65	90
16	1730	1860	110	1850	100	72	70	90
17	1865	1990	130	1980	130	80	77	88
18	2020	2145	155	2135	155	88	85	85
19	2190	2325	180	2315	180	95	93	80
20	2370	2495	170	2500	185	102	100	80

Grade STD

Age in Weeks	STD Weight	Target Weight	Target Weight gain	Actual Weight	Actual weight gain	STD Feed	Actual Feed	Uniformity %
15	1610	1600	110	1600	110	66	66	95
16	1730	1720	120	1720	120	72	72	95
17	1865	1860	140	1860	140	80	80	90
18	2020	2015	155	2020	160	88	88	88
19	2190	2195	180	2190	170	95	95	90
20	2370	2375	180	2370	180	102	102	90

Grade B

Age in Weeks	STD Weight	Target Weight	Target Weight gain	Actual Weight	Actual weight gain	STD Feed	Actual Feed	Uniformity %
15	1610	1450	110	1450	110	66	68	90
16	1730	1580	130	1580	130	72	75	90
17	1865	1730	150	1730	150	80	83	85
18	2020	1900	170	1910	180	88	91	88
19	2190	2090	190	2100	190	95	98	85
20	2370	2280	190	2280	180	102	104	88

Weekly flock body weight progress summary: 15th week - 20th week

Age in Weeks	STD Weight	Target Weight	Target Weight gain	Actual Weight	Actual weight gain	STD Feed	Actual Feed	Uniformity %
15	1570	1605	110	1605	107	66	66	92
16	1690	1725	120	1723	118	72	72	92
17	1825	1864	140	1863	140	80	80	88
18	1980	2021	156	2024	161	88	88	87
19	2150	2202	181	2197	173	95	95	85
20	2370	2381	180	2378	181	102	102	86

**On account of earlier two times grading (first and second), redrawing of target body weight and manipulation in feed increase in the following four to five weeks, flock uniformity should be above 80% by 15th Week. There should be negligible number or nil weak birds and overweight birds. Only such a flock will have uniform sexual maturity when light stimulated.

* If any underweight or weak birds are noticed at 15th or 16th week of age, those birds should be thoroughly examined to find out the reason for being weak. Birds with any kind of physical abnormality or injury, faulty beak trimming, pasty vent etc., should be culled.
* Birds in the higher body weight category should not be brought down to standard body weight category after 15 weeks of age.

J. Annexure II

Table No.1

Vencobb430 - Female - SUMMER BROODING /GROWING (Feb-July) *								
Age (Week)	Body Weight (grams)	Weight gain (grams)	Feed intake **			Nutrient intake /Bird/Day		
			bird/day (grams)	Increment (grams)	Feed Type ***	K. Cal	Protein (grams)	Dig Lysine (mg)
1	140	100	23	23	CF	66	4.37	214
2	260	120	29	6	CF	83	5.51	270
3	400	140	35	6	CF	100	6.65	326
4	530	130	40	5	CF	114	7.60	372
5	640	110	44	4	GF	119	6.38	264
6	740	100	47	3	GF	127	6.82	282
7	840	100	49	2	GF	132	7.11	294
8	940	100	51	2	GF	138	7.40	306
9	1040	100	52	1	GF	140	7.54	312
10	1130	90	53	1	GF	143	7.69	318
11	1220	90	54	1	GF	146	7.83	324
12	1310	90	56	2	GF	151	8.12	336
13	1400	90	58	2	GF	157	8.41	348
14	1500	100	61	3	GF	165	8.85	366
15	1610	110	66	5	GF	178	9.57	396
16	1730	120	72	6	DF	202	10.80	454
17	1865	135	80	8	DF	224	12.00	504
18	2020	155	88	8	DF	246	13.20	554
19	2190	170	95	7	DF	266	14.25	599
20	2370	180	102	7	DF	286	15.30	643
21	2550	180	107	5	DF	300	16.05	674
22	2720	170	110	3	PBF	308	16.50	693
23	2880	160	113	3	PBF	316	16.95	712
24	3040	160	116	3	PBF	325	17.40	731

* First two months of rainy season are included in summer brooding / growing
** First & second week full feed is recommended
***CF = chick feed; GF = grower feed; DF = developer feed; PBF = pre-breeder feed

Table No.2

Vencobb430 - Female - WINTER BROODING / GROWING (Aug - Jan) *								
Age (Week)	Body Weight (grams)	Weight gain (grams)	Feed intake **			Nutrient intake /Bird/Day		
			bird/day (grams)	Increment (grams)	Feed Type ***	K. Cal	Protein (grams)	Dig Lysine (mg)
1	140	100	23	23	CF	66	4.26	214
2	260	120	29	6	CF	83	5.37	270
3	400	140	35	6	CF	100	6.48	326
4	520	120	40	5	CF	114	7.40	372
5	630	110	44	4	GF	119	6.38	264
6	730	100	46	2	GF	124	6.67	276
7	830	100	48	2	GF	130	6.96	288
8	920	90	50	2	GF	135	7.25	300
9	1010	90	52	2	GF	140	7.54	312
10	1100	90	53	1	GF	143	7.69	318
11	1180	80	54	1	GF	146	7.83	324
12	1260	80	55	1	GF	149	7.98	330
13	1340	80	57	2	GF	154	8.27	342
14	1430	90	60	3	GF	162	8.70	360
15	1530	100	65	5	GF	176	9.43	390
16	1640	110	70	5	DF	196	10.50	441
17	1765	125	77	7	DF	216	11.55	485
18	1905	140	85	8	DF	238	12.75	536
19	2065	160	92	7	DF	258	13.80	580
20	2235	170	98	6	DF	274	14.70	617
21	2415	180	102	4	DF	286	15.30	643
22	2585	170	105	3	PBF	294	15.75	662
23	2745	160	108	3	PBF	302	16.20	680
24	2900	155	111	3	PBF	311	16.65	699

* Last two months of rainy season are included in winter brooding / growing
** First & second week full feed is recommended
***CF = chick feed; GF = grower feed; DF = developer feed; PBF = pre-breeder feed

Table No.3

Vencobb Y Male - GROWING – Body Weight & Feed								
Age (Week)	Body Weight (grams)	Weight gain (grams)	Feed intake **			Nutrient intake /Bird/Day		
			/bird/day (grams)	Increment (grams)	Feed Type ***	ME (K Cal)	CP (grams)	Dig Lysine (mg)
1	140	100	23	---	CF	66	4.37	214
2	320	180	32	9	CF	91	6.08	298
3	510	190	43	11	CF	123	8.17	400
4	690	180	51	8	CF	145	9.69	474
5	850	160	58	7	GF	157	8.41	348
6	1000	150	63	5	GF	170	9.14	378
7	1140	140	67	4	GF	181	9.72	402
8	1270	130	70	3	GF	189	10.15	420
9	1400	130	72	2	GF	194	10.44	432
10	1530	130	74	2	GF	200	10.73	444
11	1650	120	76	2	GF	205	11.02	456
12	1770	120	77	1	GF	208	11.17	462
13	1880	110	78	1	GF	211	11.31	468
14	1990	110	79	1	GF	213	11.46	474
15	2110	120	83	4	GF	224	12.04	498
16	2240	130	87	4	DF	244	13.05	548
17	2390	150	94	7	DF	263	14.10	592
18	2550	160	101	7	DF	283	15.15	636
19	2720	170	106	5	DF	297	15.90	668
20	2890	170	109	3	DF	305	16.35	687
21	3050	160	112	3	DF	314	16.80	706
22	3200	150	114	2	PBF	319	17.10	718
23	3340	140	117	3	PBF	328	17.55	737
24	3480	140	120	3	PBF	336	18.00	756

** First, second & third week full feed is recommended

***CF = chick feed; GF = grower feed; DF = developer feed; PBF = pre-breeder feed

1. Both for Winter and Summer Brooding / Growing flocks, same Male bodyweight standards are recommended.
2. Pre-breeder feed is recommended from 22 weeks until 28 weeks to males because, males take longer time to attain complete sexual maturity. Therefore, low energy and low protein male feed is suggested from 29 weeks onwards.
3. Male feed is to be started from 29 weeks of age with 5 grams of feed increase to match energy content but protein remains low. Until culling, further feed increment is not suggested. If expected weekly body weight gain is not recorded or body weight loss and deterioration in semen quality or quantity are noticed, then, immediate increase of 3 -5 grams feed is suggested.

Table No.4

Vencobb Y Male – LAYING - Body Weight & Feed								
Age (Week)	Body Weight (grams)	Weight gain (grams)	Feed intake			Nutrient intake /Bird/Day		
			/bird/day (grams)	Increment (grams)	Feed Type **	ME (K Cal)	CP (grams)	Dig Lysine (mg)
24	3480	140	120	3	PBF	336	18.00	756
25	3600	120	123	3	PBF	344	18.45	775
26	3700	100	123	0	PBF	344	18.45	775
27	3790	90	123	0	PBF	344	18.45	775
28	3880	90	123	0	PBF	344	18.45	775
29	3960	80	128	5	MF	346	16.64	640
30	4040	80	128	0	MF	346	16.64	640
31	4110	70	128	0	MF	346	16.64	640
32	4170	60	128	0	MF	346	16.64	640
33	4230	60	128	0	MF	346	16.64	640
34	4280	50	128	0	MF	346	16.64	640
35	4320	40	128	0	MF	346	16.64	640
36	4350	30	128	0	MF	346	16.64	640
37	4380	30	128	0	MF	346	16.64	640
38	4410	30	128	0	MF	346	16.64	640
39	4440	30	128	0	MF	346	16.64	640
40	4460	20	128	0	MF	346	16.64	640
41	4480	20	128	0	MF	346	16.64	640
42	4500	20	128	0	MF	346	16.64	640
43	4520	20	128	0	MF	346	16.64	640
44	4540	20	128	0	MF	346	16.64	640
45	4560	20	128	0	MF	346	16.64	640
46	4580	20	128	0	MF	346	16.64	640
47	4600	20	128	0	MF	346	16.64	640
48	4620	20	128	0	MF	346	16.64	640
49	4640	20	128	0	MF	346	16.64	640
50	4660	20	128	0	MF	346	16.64	640
51	4675	15	128	0	MF	346	16.64	640
52	4690	15	128	0	MF	346	16.64	640
53	4705	15	128	0	MF	346	16.64	640
54	4720	15	128	0	MF	346	16.64	640
55	4735	15	128	0	MF	346	16.64	640
56	4750	15	128	0	MF	346	16.64	640
57	4765	15	128	0	MF	346	16.64	640
58	4780	15	128	0	MF	346	16.64	640
59	4795	15	128	0	MF	346	16.64	640
60	4810	15	128	0	MF	346	16.64	640
61	4825	15	128	0	MF	346	16.64	640
62	4840	15	128	0	MF	346	16.64	640
63	4855	15	128	0	MF	346	16.64	640
64	4870	15	128	0	MF	346	16.64	640
65	4885	15	128	0	MF	346	16.64	640
66	4900	15	128	0	MF	346	16.64	640

** PBF = pre-breeder feed, MF=male feed; changeover to Male feed at 29th weeks.

Table No.5

Vencobb430 – Female Body weight and Feed - SUMMER LAYING (Feb-Jul)								
Age (week)	Female Body Weight		Female Feed intake /bird/day			Nutrient intake /Bird/Day		
	Weight (grams)	Weekly Gain (grams)	Feed (grams)	Increase /Decrease (grams)	Feed Type **	ME (Kcal)	Protein (grams)	Dig Lysine (mg)
24	2900	150	111	3	BRE 1	311	16.65	699
25	3020	120	117	6	BRE 1	328	17.55	737
26	3120	100	140	23	BRE 1	392	21.00	882
27	3210	90	156	16	BRE 1	437	23.40	983
28	3300	90	156	0	BRE 1	437	23.40	983
29	3380	80	156	0	BRE 1	437	23.40	983
30	3450	70	156	0	BRE 1	437	23.40	983
31	3500	50	156	0	BRE 1	437	23.40	983
32	3530	30	156	0	BRE 1	437	23.40	983
33	3560	30	156	0	BRE 1	437	23.40	983
34	3580	20	156	0	BRE 1	437	23.40	983
35	3600	20	154	-2	BRE 1	431	23.10	970
36	3620	20	154	0	BRE 1	431	23.10	970
37	3640	20	154	0	BRE 1	431	23.10	970
38	3660	20	154	0	BRE 1	431	23.10	970
39	3680	20	154	0	BRE 1	431	23.10	970
40	3695	15	154	0	BRE 1	431	23.10	970
41	3710	15	154	0	BRE 2	436	22.33	924
42	3725	15	152	-2	BRE 2	430	22.04	912
43	3740	15	152	0	BRE 2	430	22.04	912
44	3755	15	152	0	BRE 2	430	22.04	912
45	3770	15	152	0	BRE 2	430	22.04	912
46	3785	15	152	0	BRE 2	430	22.04	912
47	3800	15	152	0	BRE 2	430	22.04	912
48	3815	15	152	0	BRE 2	430	22.04	912
49	3830	15	152	0	BRE 2	430	22.04	912
50	3845	15	152	0	BRE 2	430	22.04	912
51	3860	15	150	-2	BRE 2	425	21.75	900
52	3870	10	150	0	BRE 2	425	21.75	900
53	3880	10	150	0	BRE 2	425	21.75	900
54	3890	10	150	0	BRE 2	425	21.75	900
55	3900	10	150	0	BRE 2	425	21.75	900
56	3910	10	150	0	BRE 2	425	21.75	900
57	3920	10	150	0	BRE 2	425	21.75	900
58	3930	10	150	0	BRE 2	425	21.75	900
59	3940	10	150	0	BRE 2	425	21.75	900
60	3950	10	150	0	BRE 2	425	21.75	900
61	3960	10	148	-2	BRE 2	419	21.46	888
62	3970	10	148	0	BRE 2	419	21.46	888
63	3980	10	148	0	BRE 2	419	21.46	888
64	3990	10	148	0	BRE 2	419	21.46	888
65	4000	10	148	0	BRE 2	419	21.46	888
66	4010	10	148	0	BRE 2	419	21.46	888

** BRE 1 = breeder feed 1, BRE 2 = breeder feed 2; changeover to BRE2 feed at 38 to 41 weeks.

Table No.6

Vencobb430 – Female Body weight and Feed - WINTER LAYING (Aug - Jan)								
Age (week)	Female Body Weight		Female Feed intake /bird/day			Nutrient intake /Bird/Day		
	Weight (grams)	Weekly Gain. (grams)	Feed (grams)	Increase /Decrease (grams)	Feed Type **	ME (Kcal)	Protein (grams)	Dig Lysine (mg)
24	3040	160	116	3	BRE 1	325	17.40	731
25	3180	140	119	3	BRE 1	333	17.85	750
26	3300	120	122	3	BRE 1	342	18.30	769
27	3390	90	143	21	BRE 1	400	21.45	901
28	3480	90	160	17	BRE 1	448	24.00	1008
29	3560	80	160	0	BRE 1	448	24.00	1008
30	3630	70	160	0	BRE 1	448	24.00	1008
31	3680	50	160	0	BRE 1	448	24.00	1008
32	3710	30	160	0	BRE 1	448	24.00	1008
33	3740	30	160	0	BRE 1	448	24.00	1008
34	3760	20	160	0	BRE 1	448	24.00	1008
35	3780	20	160	0	BRE 1	448	24.00	1008
36	3800	20	158	-2	BRE 1	442	23.70	995
37	3820	20	158	0	BRE 1	442	23.70	995
38	3840	20	158	0	BRE 1	442	23.70	995
39	3860	20	158	0	BRE 1	442	23.70	995
40	3880	20	158	0	BRE 1	442	22.91	948
41	3895	15	158	0	BRE 2	447	22.91	948
42	3910	15	156	-2	BRE 2	441	22.62	936
43	3925	15	156	0	BRE 2	441	22.62	936
44	3940	15	156	0	BRE 2	441	22.62	936
45	3950	10	156	0	BRE 2	441	22.62	936
46	3960	10	156	0	BRE 2	441	22.62	936
47	3970	10	156	0	BRE 2	441	22.62	936
48	3980	10	154	-2	BRE 2	436	22.33	924
49	3990	10	154	0	BRE 2	436	22.33	924
50	4000	10	154	0	BRE 2	436	22.33	924
51	4010	10	154	0	BRE 2	436	22.33	924
52	4020	10	154	0	BRE 2	436	22.33	924
53	4030	10	154	0	BRE 2	436	22.33	924
54	4040	10	152	-2	BRE 2	430	22.04	912
55	4050	10	152	0	BRE 2	430	22.04	912
56	4060	10	152	0	BRE 2	430	22.04	912
57	4070	10	152	0	BRE 2	430	22.04	912
58	4080	10	152	0	BRE 2	430	22.04	912
59	4090	10	152	0	BRE 2	430	22.04	912
60	4100	10	150	-2	BRE 2	425	21.75	900
61	4110	10	150	0	BRE 2	425	21.75	900
62	4120	10	150	0	BRE 2	425	21.75	900
63	4130	10	150	0	BRE 2	425	21.75	900
64	4140	10	150	0	BRE 2	425	21.75	900
65	4150	10	150	0	BRE 2	425	21.75	900
66	4160	10	150	0	BRE 2	425	21.75	900

** BRE 1 = breeder feed 1, BRE 2 = breeder feed 2; changeover to BRE2 feed at 38 to 41 weeks.

Table No.7

Vencobb430 - Production Performance - SUMMER LAYING (Feb-July)										
Age (weeks)	Cum Depletion %	Hen week %	HE %	Weekly TE/HH	Cum. TE/HH	Weekly HE/HH	Cum. HE/HH	Hatch %	Weekly Chicks /HH	Cum. Chicks /HH
24	0.1	5	---	0.4	0.4	---	---	---	---	---
25	0.30	20	45	1.4	1.7	0.6	0.6	55.0	0.3	0.3
26	0.55	48	65	3.3	5.1	2.2	2.8	62.0	1.4	1.7
27	0.80	70	78	4.9	10.0	3.8	6.6	72.0	2.7	4.4
28	1.05	80	88	5.6	15.5	4.9	11.5	78.0	3.8	8.2
29	1.30	84	90	5.8	21.3	5.2	16.7	81.0	4.2	12.5
30	1.50	86	92	5.9	27.3	5.5	22.2	84.0	4.6	17.1
31	1.70	87	93	6.0	33.3	5.6	27.8	86.0	4.8	21.9
32	1.90	86	94	5.9	39.2	5.6	33.3	87.0	4.8	26.7
33	2.10	85	95	5.8	45.0	5.5	38.9	88.0	4.9	31.6
34	2.25	84	95	5.8	50.8	5.5	44.4	88.5	4.8	36.4
35	2.40	83	95	5.7	56.5	5.4	49.7	89.0	4.8	41.2
36	2.55	82	96	5.6	62.1	5.4	55.1	90.0	4.8	46.1
37	2.70	81	96	5.5	67.6	5.3	60.4	90.0	4.8	50.9
38	2.85	80	96	5.4	73.1	5.2	65.7	90.5	4.7	55.6
39	3.00	79	96	5.4	78.4	5.2	70.8	90.5	4.7	60.3
40	3.15	78	96	5.3	83.7	5.1	75.9	91.0	4.6	64.9
41	3.30	77	96	5.2	88.9	5.0	80.9	91.0	4.6	69.4
42	3.45	76	96	5.1	94.1	4.9	85.9	91.0	4.5	73.9
43	3.60	75	96	5.1	99.2	4.9	90.7	90.5	4.4	78.3
44	3.75	74	96	5.0	104.1	4.8	95.5	90.5	4.3	82.7
45	3.90	73	96	4.9	109.1	4.7	100.2	90.0	4.2	86.9
46	4.05	72	96	4.8	113.9	4.6	104.9	90.0	4.2	91.1
47	4.20	71	96	4.8	118.7	4.6	109.5	89.5	4.1	95.2
48	4.35	70	96	4.7	123.4	4.5	114.0	89.5	4.0	99.2
49	4.50	69	96	4.6	128.0	4.4	118.4	89.0	3.9	103.2
50	4.65	68	96	4.5	132.5	4.4	122.8	89.0	3.9	107.1
51	4.80	67	95	4.5	137.0	4.2	127.0	88.5	3.8	110.8
52	4.95	66	95	4.4	141.4	4.2	131.2	88.5	3.7	114.5
53	5.10	65	95	4.3	145.7	4.1	135.3	88.0	3.6	118.1
54	5.25	64	95	4.3	150.0	4.0	139.3	87.5	3.5	121.7
55	5.40	63	95	4.2	154.2	4.0	143.3	87.0	3.5	125.1
56	5.55	62	95	4.1	158.3	3.9	147.2	86.5	3.4	128.5
57	5.70	61	95	4.0	162.3	3.8	151.0	86.0	3.3	131.8
58	5.85	60	95	4.0	166.3	3.8	154.8	86.0	3.2	135.0
59	6.00	59	95	3.9	170.2	3.7	158.5	85.5	3.2	138.2
60	6.15	58	94	3.8	174.0	3.6	162.1	85.5	3.1	141.3
61	6.30	57	94	3.7	177.7	3.5	165.6	84.5	3.0	144.2
62	6.45	56	94	3.7	181.4	3.5	169.1	83.5	2.9	147.1
63	6.60	55	94	3.6	185.0	3.4	172.4	83.0	2.8	149.9
64	6.80	54	94	3.5	188.5	3.3	175.8	82.5	2.7	152.7
65	7.00	54	94	3.5	192.0	3.3	179.1	82.0	2.7	155.4
66	7.20	53	93	3.5	195.5	3.2	182.3	81.0	2.6	158.0

Table No.8

Vencobb430 - Production Performance - WINTERER LAYING (Aug – Jan)										
Age (weeks)	Cum Depletion %	Hen week %	HE %	Weekly TE/HH	Cum. TE/HH	Weekly HE/HH	Cum. HE/HH	Hatch %	Weekly Chicks /HH	Cum. Chicks /HH
24	0.1	---	---	---	---	---	---	---	---	---
25	0.30	5	50	0.3	0.3	0.2	0.2	50.0	0.1	0.1
26	0.55	21	70	1.5	1.8	1.0	1.2	57.0	0.6	0.7
27	0.80	45	80	3.1	4.9	2.5	3.7	66.0	1.7	2.3
28	1.05	69	88	4.8	9.7	4.2	7.9	72.0	3.0	5.4
29	1.30	79	90	5.5	15.2	4.9	12.8	76.0	3.7	9.1
30	1.55	82	92	5.7	20.9	5.2	18.1	80.0	4.2	13.3
31	1.75	84	93	5.8	26.7	5.4	23.4	83.0	4.5	17.7
32	1.95	85	95	5.8	32.5	5.6	29.0	86.0	4.8	22.5
33	2.10	86	95	5.9	38.4	5.6	34.6	87.0	4.9	27.4
34	2.25	85	95	5.8	44.2	5.5	40.1	88.0	4.9	32.3
35	2.40	84	96	5.7	50.0	5.5	45.7	89.0	4.9	37.2
36	2.55	83	96	5.7	55.7	5.4	51.1	90.0	4.9	42.1
37	2.65	82	96	5.6	61.3	5.4	56.5	90.5	4.9	46.9
38	2.75	81	96.5	5.5	66.8	5.3	61.8	91.0	4.8	51.8
39	2.85	80	96.5	5.4	72.2	5.3	67.1	91.0	4.8	56.6
40	2.95	80	96.5	5.4	77.7	5.2	72.3	91.5	4.8	61.4
41	3.10	79	96.5	5.4	83.0	5.2	77.5	91.5	4.7	66.1
42	3.25	78	96.5	5.3	88.3	5.1	82.6	91.5	4.7	70.8
43	3.40	77	96.5	5.2	93.5	5.0	87.6	91.0	4.6	75.4
44	3.55	76	96.5	5.1	98.7	5.0	92.6	91.0	4.5	79.9
45	3.70	75	96.5	5.1	103.7	4.9	97.5	90.5	4.4	84.3
46	3.85	74	96	5.0	108.7	4.8	102.3	90.0	4.3	88.6
47	4.00	73	96	4.9	113.6	4.7	107.0	89.5	4.2	92.8
48	4.15	72	96	4.8	118.5	4.6	111.6	89.5	4.2	97.0
49	4.30	71	96	4.8	123.2	4.6	116.2	89.5	4.1	101.1
50	4.45	70	96	4.7	127.9	4.5	120.7	89.0	4.0	105.1
51	4.60	69	95	4.6	132.5	4.4	125.1	89.0	3.9	109.0
52	4.75	68	95	4.5	137.1	4.3	129.4	88.5	3.8	112.8
53	4.90	67	95	4.5	141.5	4.2	133.6	88.5	3.8	116.6
54	5.05	66	95	4.4	145.9	4.2	137.8	88.0	3.7	120.2
55	5.20	65	95	4.3	150.3	4.1	141.9	87.0	3.6	123.8
56	5.35	64	95	4.2	154.5	4.0	145.9	87.0	3.5	127.3
57	5.50	63	95	4.2	158.7	4.0	149.9	86.5	3.4	130.7
58	5.65	62	95	4.1	162.8	3.9	153.8	86.0	3.4	134.1
59	5.80	61	95	4.0	166.8	3.8	157.6	85.5	3.3	137.4
60	5.95	60	95	4.0	170.8	3.8	161.4	85.5	3.2	140.6
61	6.10	59	94	3.9	174.7	3.7	165.0	85.0	3.1	143.7
62	6.25	58	94	3.8	178.5	3.6	168.6	84.0	3.0	146.7
63	6.40	57	94	3.7	182.2	3.5	172.1	83.0	2.9	149.6
64	6.60	56	94	3.7	185.9	3.4	175.6	83.0	2.9	152.5
65	6.80	55	94	3.6	189.5	3.4	179.0	82.0	2.8	155.2
66	7.00	54	94	3.5	193.0	3.3	182.3	82.0	2.7	158.0

Table No.9

Vencobb430 – Weekly Egg Weight, Chick Weight & Hatch Performance - SUMMER LAYING						
Age (weeks)	Egg Weight (grams)	Egg mass (grams)	Chick Weight (grams)	Fertility %	Hatchability%	Hatch of Fertile %
24	48.0	2.4	---	---	---	---
25	50.4	10.1	35.3	85.0	55.0	64.7
26	52.2	25.1	36.5	88.5	62.0	70.1
27	54.0	37.8	37.8	92.0	72.0	78.3
28	55.7	44.6	39.0	94.0	78.0	83.0
29	57.1	48.0	40.0	94.5	81.0	85.7
30	58.2	50.1	40.7	95.5	84.0	88.0
31	59.2	51.5	41.4	96.0	86.0	89.6
32	60.1	51.7	42.1	96.0	87.0	90.6
33	60.9	51.8	42.6	96.3	88.0	91.4
34	61.7	51.8	43.2	96.5	88.5	91.7
35	62.4	51.8	43.7	96.5	89.0	92.2
36	63.0	51.7	44.1	96.5	90.0	93.3
37	63.6	51.5	44.5	96.5	90.0	93.3
38	64.1	51.3	44.9	96.5	90.5	93.8
39	64.5	51.0	45.2	96.5	90.5	93.8
40	64.8	50.5	45.4	96.5	91.0	94.3
41	65.1	50.1	45.5	96.5	91.0	94.3
42	65.4	49.7	45.6	96.5	91.0	94.3
43	65.7	49.3	45.9	96.5	90.5	93.8
44	66.0	48.8	46.1	96.5	90.5	93.8
45	66.2	48.3	46.2	96.0	90.0	93.8
46	66.4	47.8	46.3	96.0	90.0	93.8
47	66.6	47.3	46.5	96.0	89.5	93.2
48	66.8	46.8	46.6	96.0	89.5	93.2
49	67.0	46.2	46.6	96.0	89.0	92.7
50	67.2	45.7	46.7	96.0	89.0	92.7
51	67.4	45.2	46.8	95.5	88.5	92.7
52	67.6	44.6	47.0	95.5	88.5	92.7
53	67.8	44.1	47.1	95.5	88.0	92.1
54	68.0	43.5	47.3	95.0	87.5	92.1
55	68.1	42.9	47.3	94.5	87.0	92.1
56	68.2	42.3	47.4	94.5	86.5	91.5
57	68.3	41.7	47.5	94.0	86.0	91.5
58	68.4	41.0	47.5	94.0	86.0	91.5
59	68.5	40.4	47.5	94.0	85.5	91.0
60	68.6	39.8	47.6	94.0	85.5	91.0
61	68.7	39.2	47.6	93.5	84.5	90.4
62	68.8	38.5	47.7	93.0	83.5	89.8
63	68.9	37.9	47.7	92.5	83.0	89.7
64	69.0	37.3	47.7	92.0	82.5	89.7
65	69.1	37.3	47.7	92.0	82.0	89.1
66	69.2	36.7	47.8	91.0	81.0	89.0

Table No.10

Vencobb430 – Weekly Egg Weight, Chick Weight & Hatch Performance - WINTER LAYING						
Age (weeks)	Egg Weight (grams)	Egg mass (grams)	Chick Weight (grams)	Fertility %	Hatchability%	Hatch of Fertile %
24	---	---	---	---	---	---
25	50.7	2.54	35.5	78.0	50.0	64.1
26	52.6	11.0	36.8	83.0	57.0	68.7
27	54.4	24.5	38.1	89.0	66.0	74.2
28	56.1	38.7	39.3	92.0	72.0	78.3
29	57.6	45.5	40.3	94.0	76.0	80.9
30	58.8	48.2	41.2	95.0	80.0	84.2
31	59.8	50.2	41.9	96.0	83.0	86.5
32	60.7	51.6	42.5	96.0	86.0	89.6
33	61.6	53.0	43.1	96.3	87.0	90.3
34	62.4	53.0	43.7	96.5	88.0	91.2
35	63.1	53.0	44.2	96.5	89.0	92.2
36	63.7	52.9	44.6	96.5	90.0	93.3
37	64.2	52.6	44.9	96.5	90.5	93.8
38	64.7	52.4	45.3	97.0	91.0	93.8
39	65.0	52.0	45.5	97.0	91.0	93.8
40	65.3	52.2	45.7	97.0	91.5	94.3
41	65.6	51.8	45.9	97.0	91.5	94.3
42	65.9	51.4	46.1	97.0	91.5	94.3
43	66.2	51.0	46.3	97.0	91.0	93.8
44	66.5	50.5	46.6	97.0	91.0	93.8
45	66.7	50.0	46.7	96.5	90.5	93.8
46	66.9	49.5	46.8	96.5	90.0	93.3
47	67.1	49.0	47.0	96.0	89.5	93.2
48	67.3	48.5	46.4	96.0	89.5	93.2
49	67.5	47.9	46.6	96.0	89.5	93.2
50	67.7	47.4	46.7	96.0	89.0	92.7
51	67.9	46.9	46.9	96.0	89.0	92.7
52	68.1	46.3	47.0	95.5	88.5	92.7
53	68.3	45.8	47.1	95.5	88.5	92.7
54	68.5	45.2	47.3	95.0	88.0	92.6
55	68.6	44.6	47.3	94.0	87.0	92.6
56	68.7	44.0	47.4	94.0	87.0	92.6
57	68.8	43.3	47.5	94.0	86.5	92.0
58	68.9	42.7	47.5	93.5	86.0	92.0
59	69.0	42.1	47.6	93.0	85.5	91.9
60	69.1	41.5	47.7	93.0	85.5	91.9
61	69.2	40.8	47.7	93.0	85.0	91.4
62	69.3	40.2	47.8	92.5	84.0	90.8
63	69.4	39.6	47.9	92.0	83.0	90.2
64	69.5	38.9	48.0	92.0	83.0	90.2
65	69.6	38.3	48.0	92.0	82.0	89.1
66	69.7	37.6	48.1	92.0	82.0	89.1

Table No.11 A

Recommended Nutrient Level for Vencobb430								
Phase		**Starter**	**Grower**	**Developer**	**Pre-breeder**	**Breeder 1**	**Breeder 2**	**Male****
Nutrient	**Unit**	**0 - 4 Weeks**	**5 -15 Weeks**	**16 - 21 Week**	**22 Weeks - 5% HDP**	**5% HDP - 40 Weeks**	**41 - 66 Weeks**	**29 – 66 Weeks**
ME	kcal/kg	2850	2700	2800	2800	2800	2830	2700
Crude Protein	%	19	14.5	15	15	15	14.5	13
Calcium	%	0.95	0.95	1	1.2	3	3.2	0.95
Av. Phosphorus	%	0.45	0.42	0.42	0.42	0.42	0.38	0.42
Sodium	%	0.15 - 0.24	0.15 -0.24	0.15 - 0.24	0.15 - 0.24	0.15 - 0.24	0.15 - 0.24	0.15 - 0.24
Chloride	%	0.15 - 0.24	0.15 - 0.24	0.15 - 0.24	0.15 - 0.24	0.15 - 0.24	0.15 - 0.24	0.15 - 0.24
Potassium	%	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Linoleic Acid	%	1	1	1	1	1.25	1.25	1
Digestible Amino Acids								
Lysine	%	0.93	0.6	0.63	0.63	0.63	0.6	0.5
Methionine	%	0.42	0.31	0.33	0.33	0.33	0.31	0.28
M + C	%	0.7	0.51	0.54	0.54	0.55	0.52	0.48
Tryptophan	%	0.2	0.13	0.14	0.14	0.14	0.13	0.12
Threonine	%	0.65	0.45	0.47	0.47	0.47	0.45	0.44
Arginine	%	0.98	0.66	0.69	0.69	0.69	0.66	0.55
Valine	%	0.67	0.45	0.47	0.47	0.47	0.45	0.38
Isoleucine	%	0.64	0.42	0.44	0.44	0.44	0.42	0.4

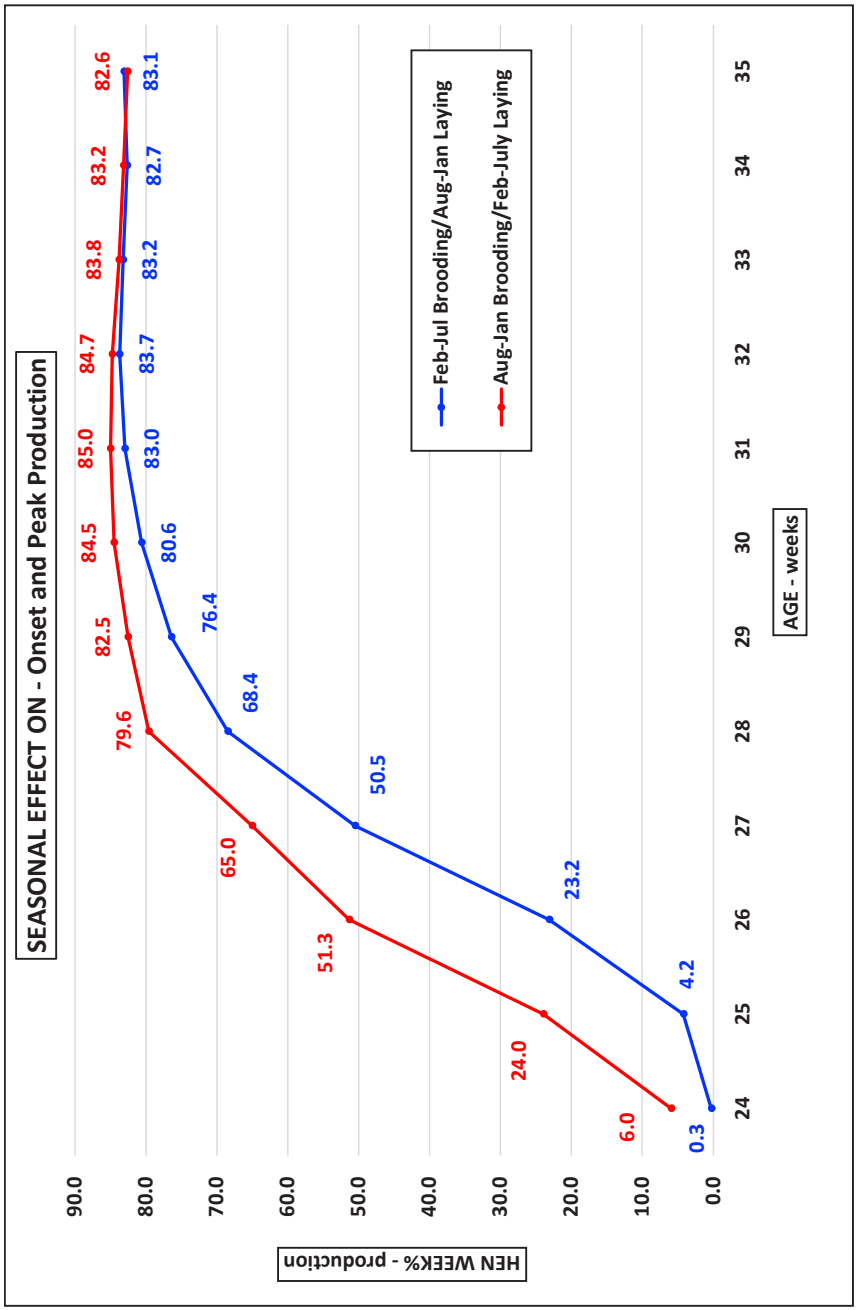
* We recommend crumble feed. When mash feed is used 2-3 grams of additional feed may be given or ME may be increased by 50 Kcal.
* ****** For males from 22 weeks to 28 weeks Pre-breeder feed is recommended.
* Trace minerals: Inorganic & Organic in the ratio of 70% & 30% for Manganese and Zinc, 50% each for Copper & Selenium and 50% to 100% organic for Iron and Iodine.

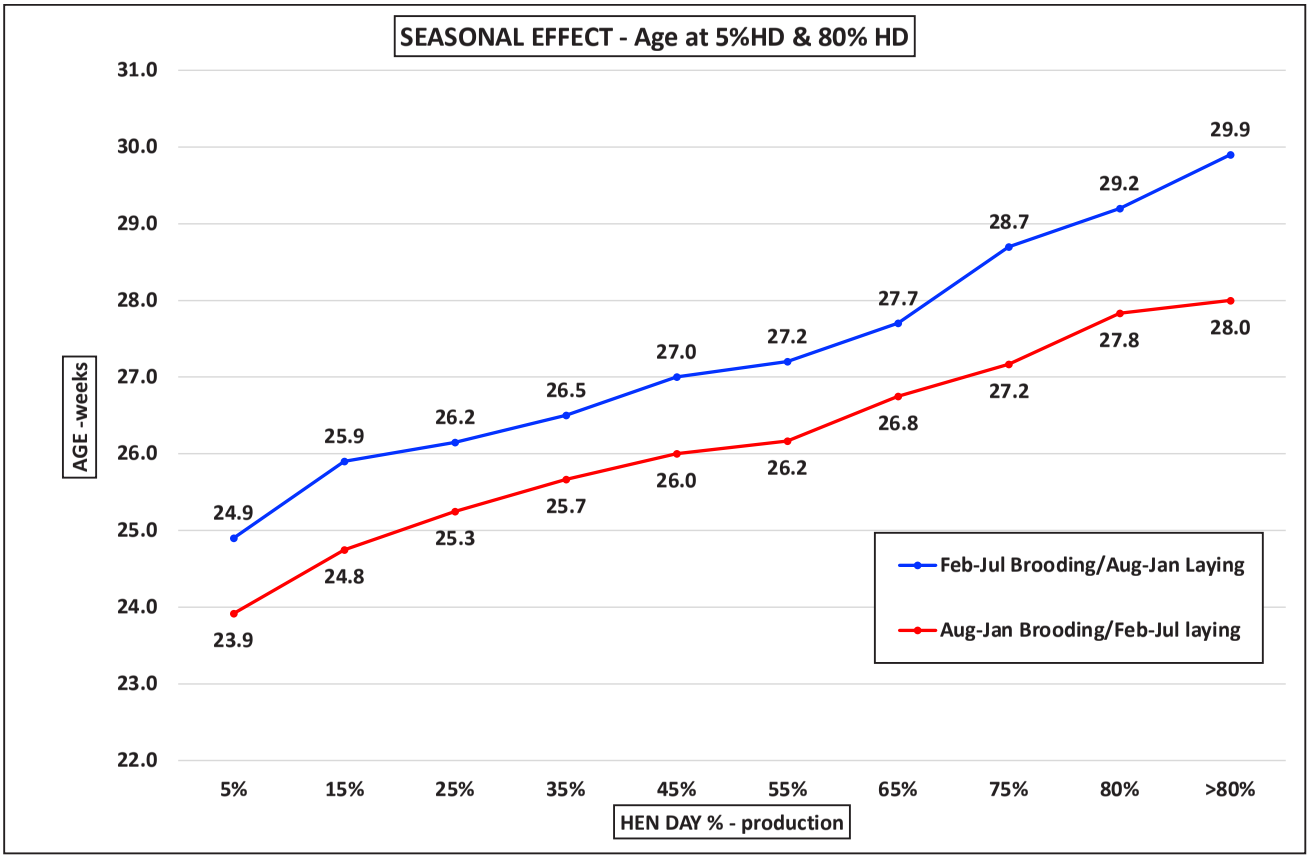
Table No.11 B

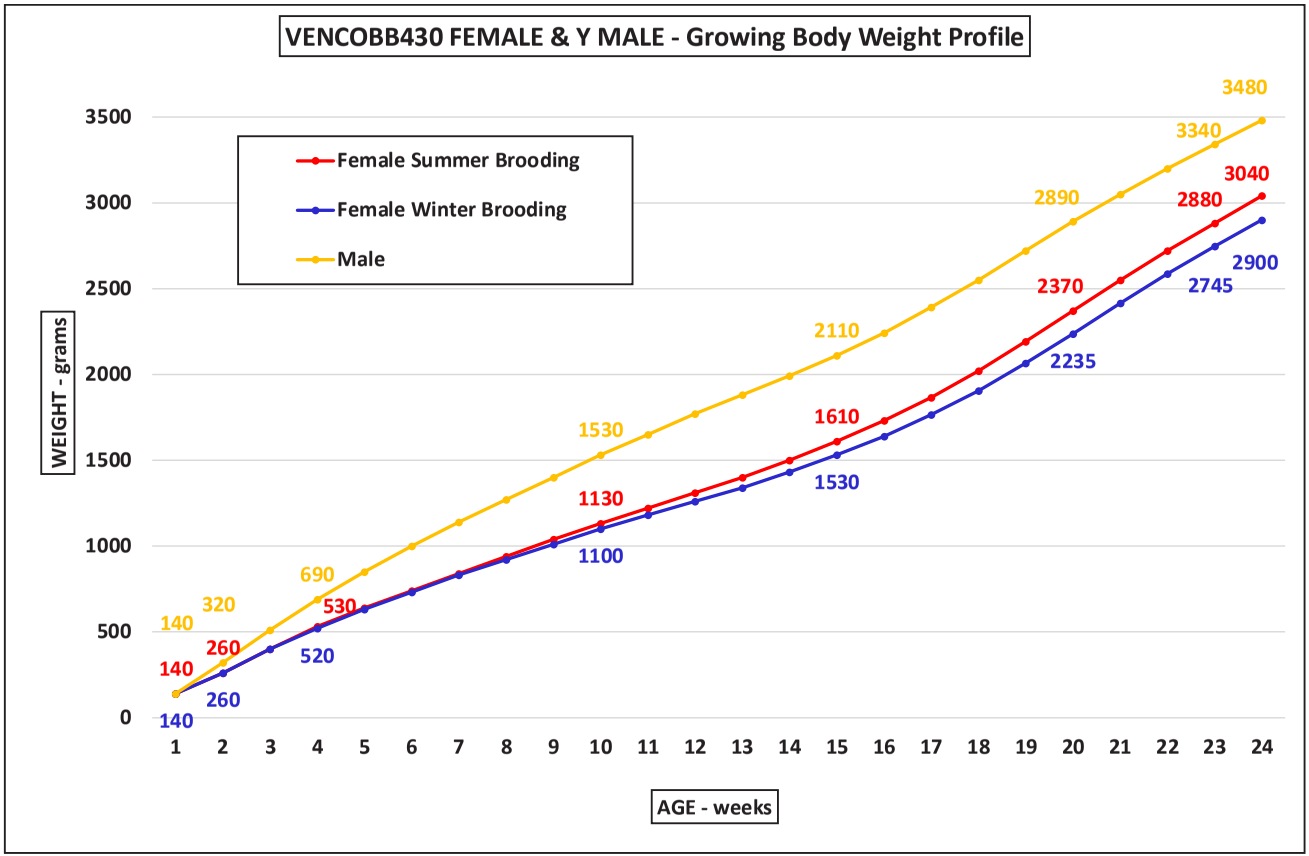
Supplementary Vitamins and Trace Minerals (Per Kg of Feed)		
Nutrients	**Unit**	
Vitamin A	IU	15000
Vitamin D3	IU	4000
Vitamin E	mg	100
Vitamin K	mg	6
Vitamin B1 (Thiamine)	mg	4
Vitamin B2(Riboflavin)	mg	20
Vitamin B3 (Niacin)	mg	60
Vitamin B5 (Pantothenic Acid)	mg	30
Vitamin B6 (Pyridoxine)	mg	6
Vitamin B9 (Folic Acid)	mg	4
Vitamin B12 (Cyanocobalamin)	mg	0.035
Vitamin C	mg	100
Biotin	mg	0.3
Ethoxyquin	mg	150
Choline	mg	1500
Trace Minerals		
Manganese	mg	120
Zinc	mg	110
Iron	mg	60
Copper	mg	20
Iodine	mg	3.0
Selenium	mg	0.5

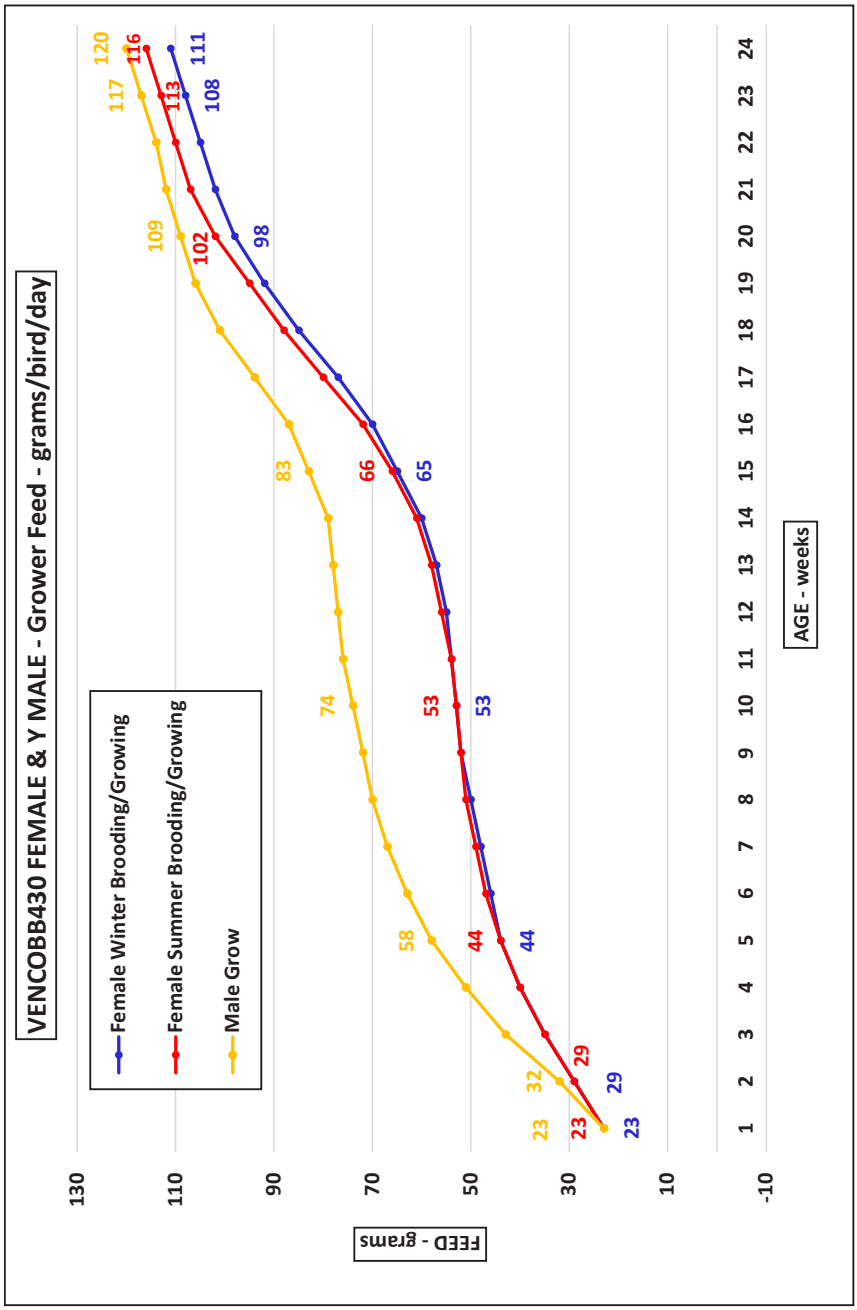
* Consistency in feed quality is an essential part of feed management and key to get good production.

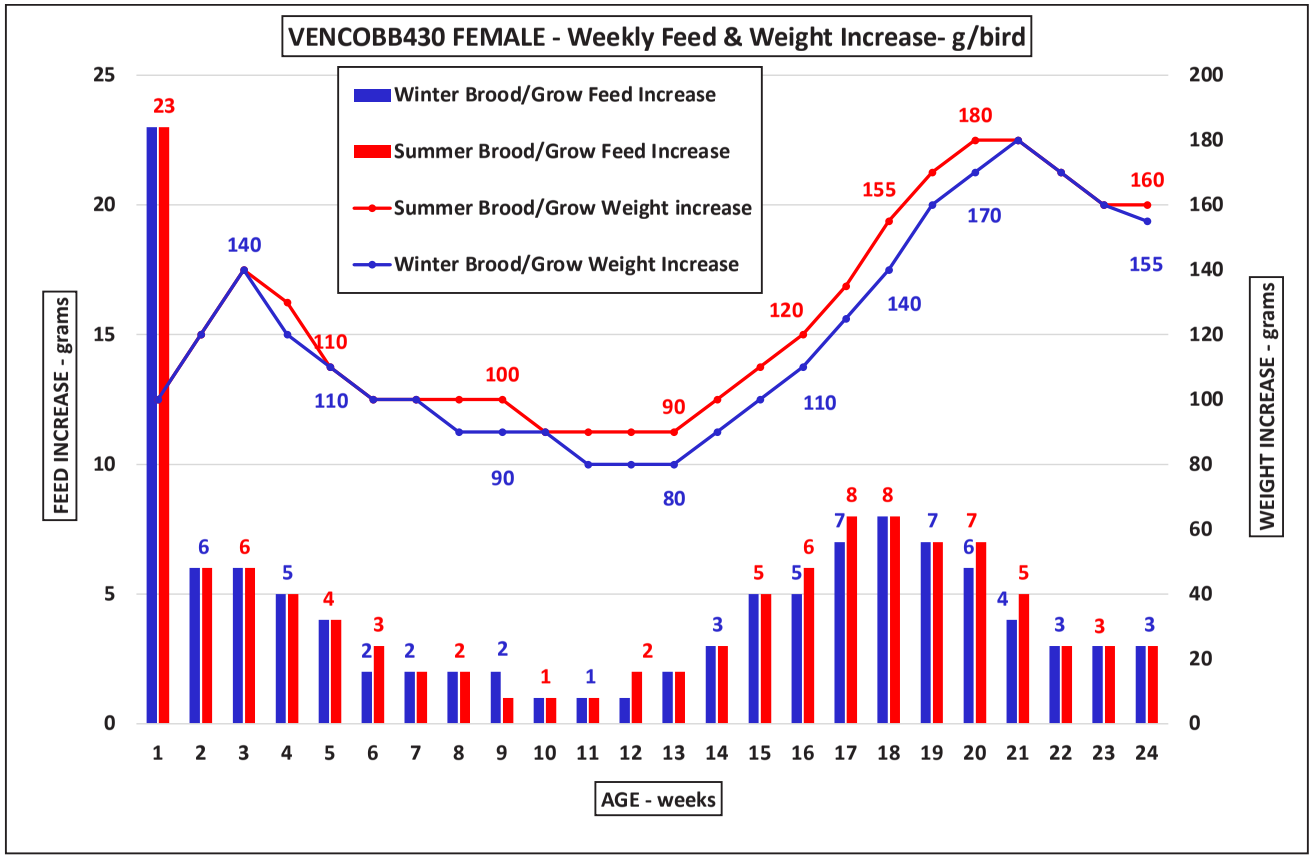
K. Annexure III

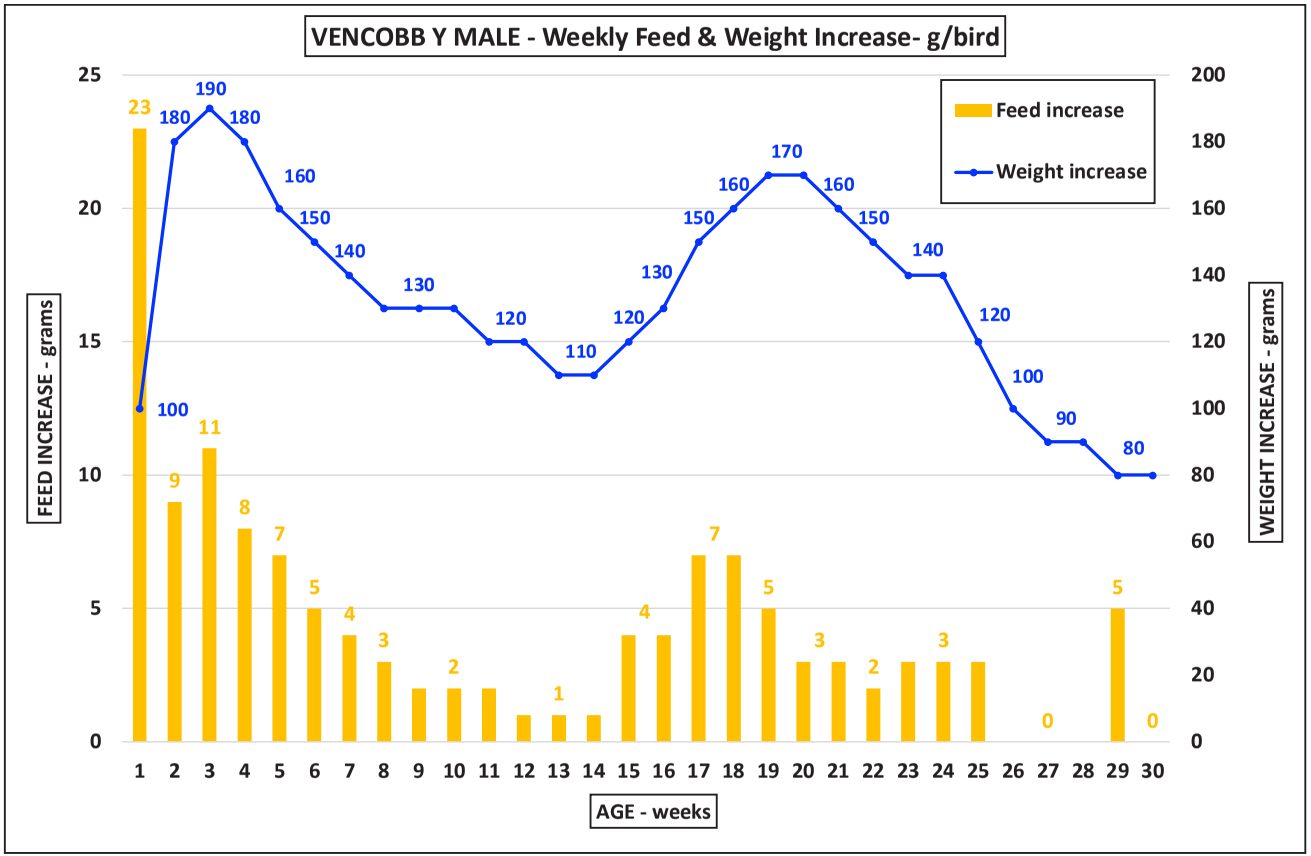


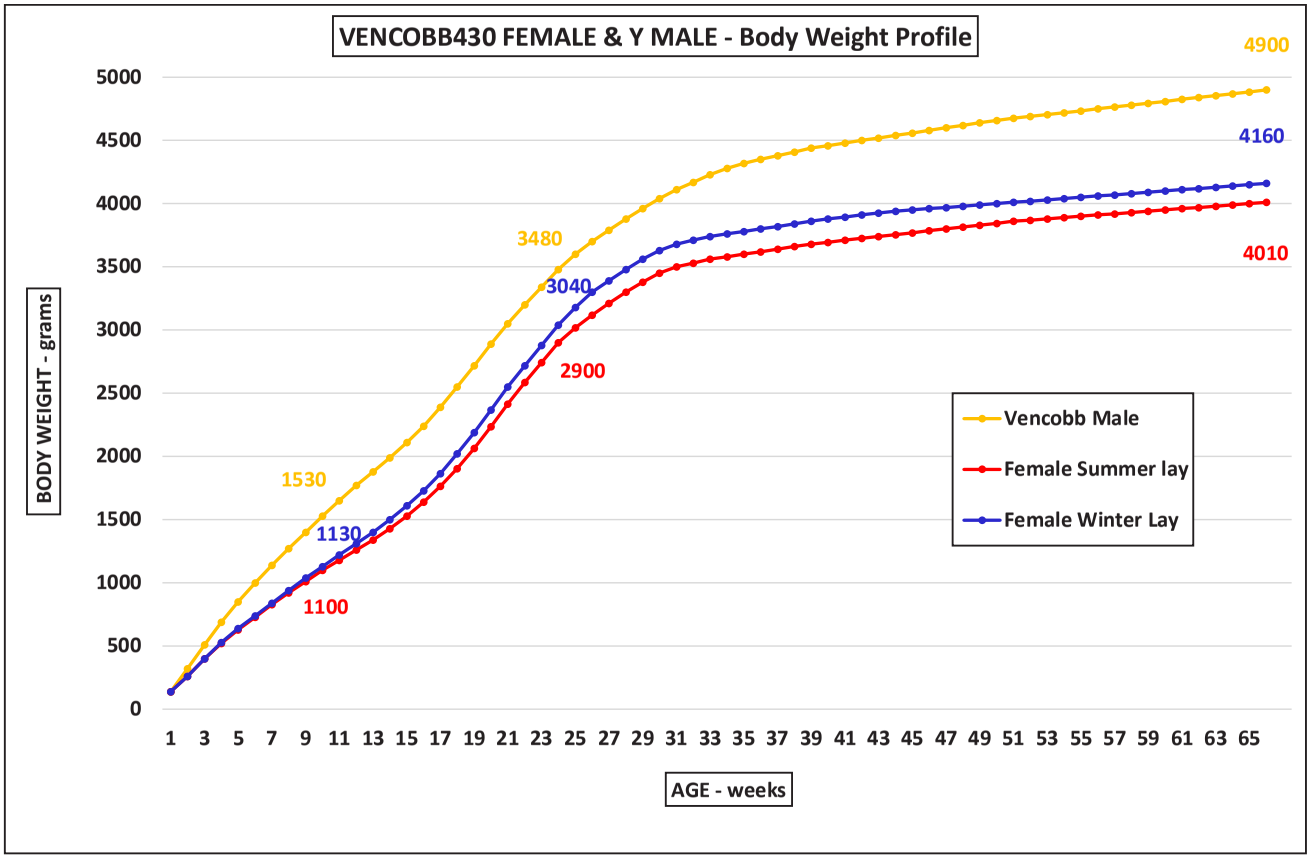

SEASONAL EFFECT - Age at 5%HD & 80% HD
AGE -weeks
31.0
30.0
29.0
28.0
27.0
26.0
25.0
24.0
23.0
22.0
24.9
25.9
26.2
26.5
27.0
27.2
27.7
28.7
29.2
29.9
23.9
24.8
25.3
25.7
26.0
26.2
26.8
27.2
27.8
28.0
5%
15%
25%
35%
45%
55%
65%
75%
80%
>80%
HEN DAY % - production
Feb-Jul Brooding/Aug-Jan Laying
Aug-Jan Brooding/Feb-Jul laying

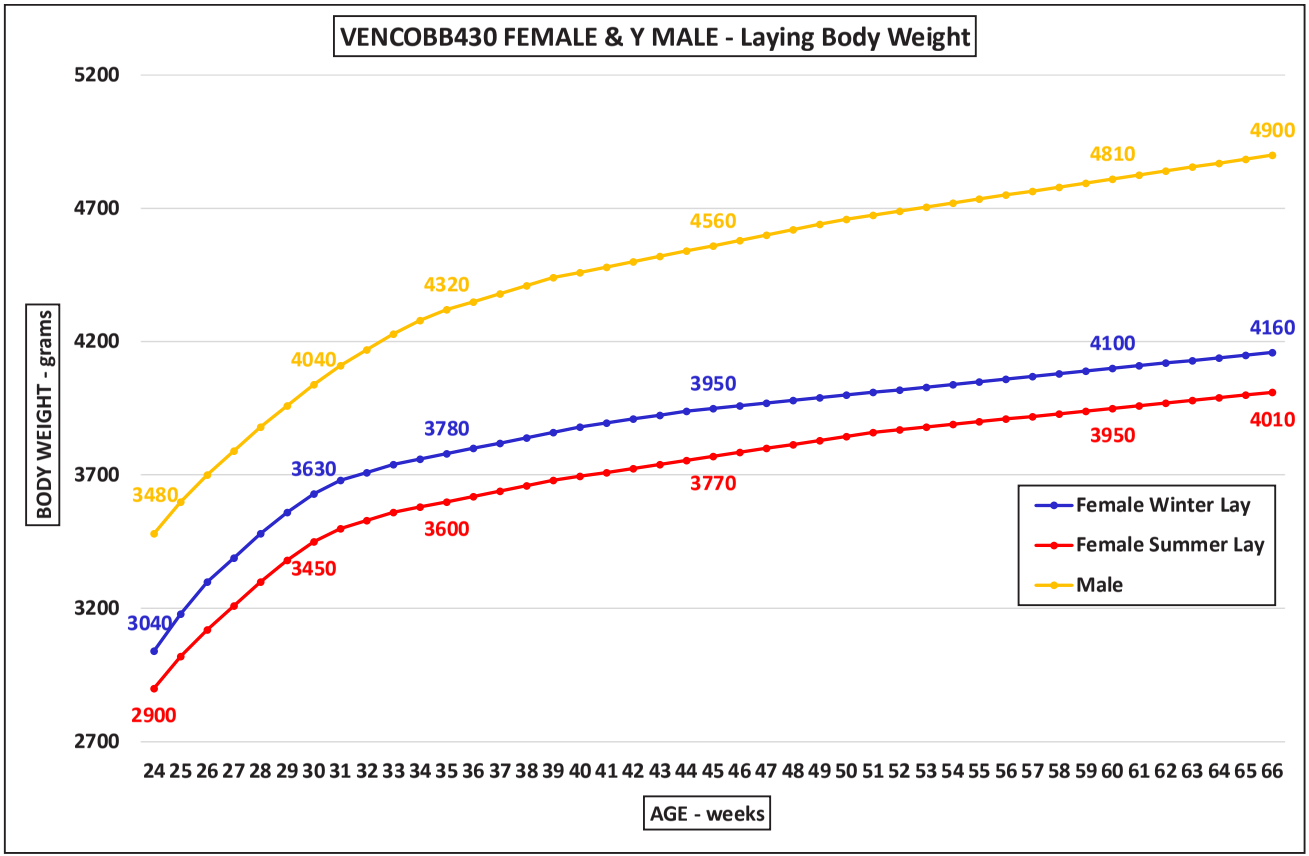

VENCOBB430 FEMALE & Y MALE - Growing Body Weight Profile
Female Summer Brooding
Female Winter Brooding
Male
WEIGHT - grams
AGE - weeks
0
500
1000
1500
2000
2500
3000
3500
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
140
320
690
1530
2110
2890
3340
3480
140
260
530
1130
1610
2370
2880
3040
140
260
520
1100
1530
2235
2745
2900

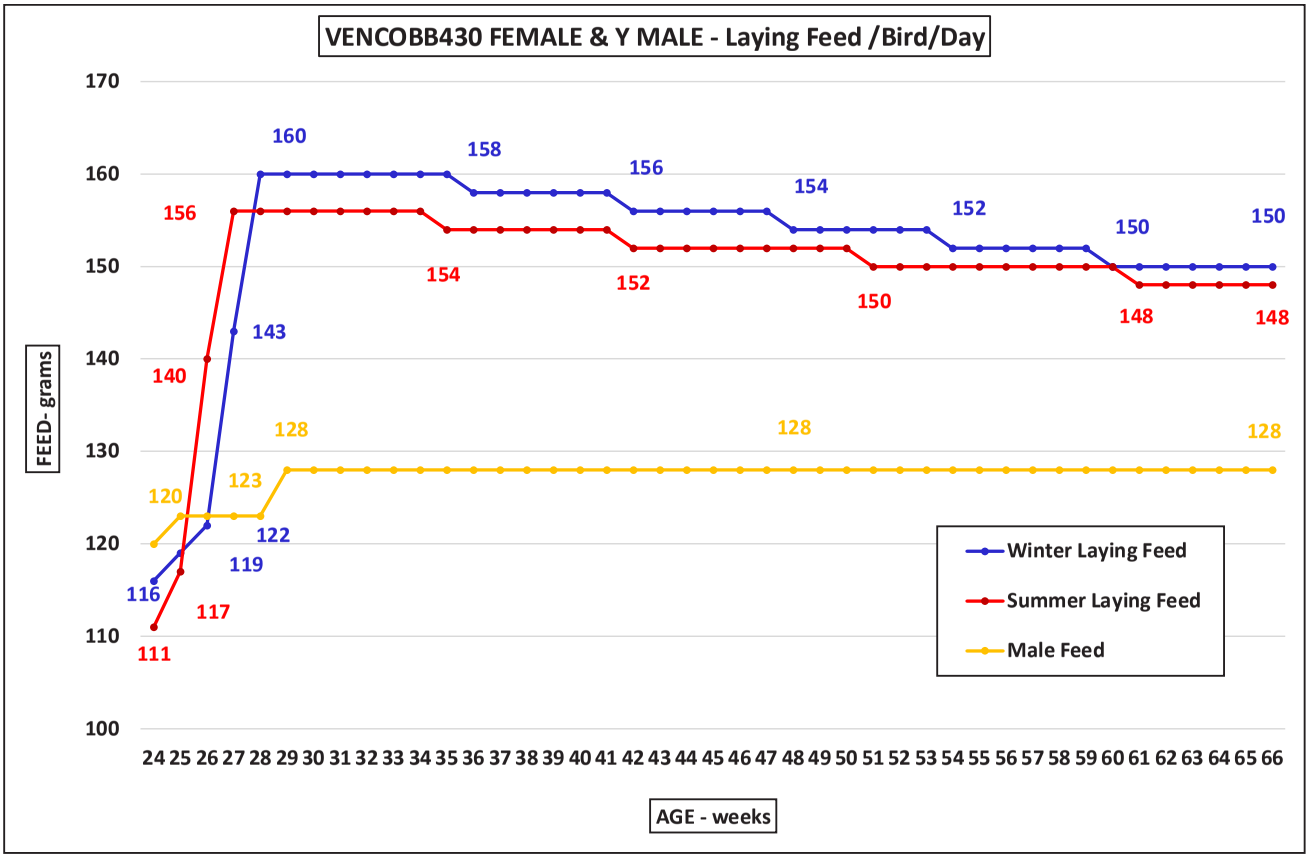

VENCOBB430 FEMALE & Y MALE - Grower Feed - grams/bird/day
Female Winter Brooding/Growing
Female Summer Brooding/Growing
Male Grow
FEED - grams
AGE - weeks
130
110
90
70
50
30
10
-10
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
23 32 58 74 83 109 117 120
23 29 44 53 66 102 113 116
23 29 44 53 65 98 108 111

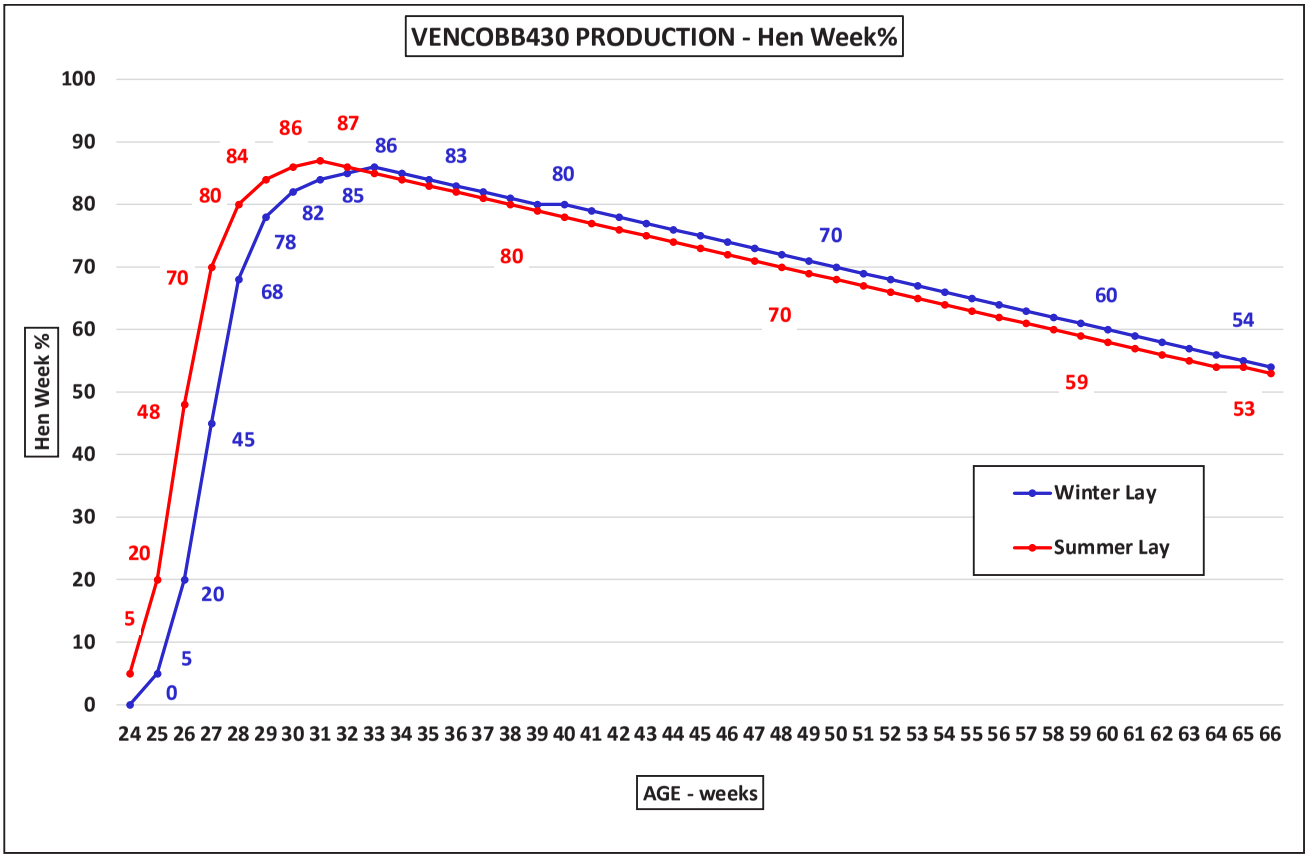

VENCOBB430 FEMALE - Weekly Feed & Weight Increase- g/bird
Winter Brood/Grow Feed Increase
Summer Brood/Grow Feed Increase
Summer Brood/Grow Weight increase
Winter Brood/Grow Weight Increase
FEED INCREASE - grams
WEIGHT INCREASE - grams
AGE - weeks
0
5
10
15
20
25
0
20
40
60
80
100
120
140
160
180
200
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
23 6 6 5 4 3 2 2 2 2 1 1 2 2 3 5 5 6 7 8 8 7 7 6 5 4 3 3 3
140 110 110 100 90 90 80 90 110 120 140 155 170 180 155 160


VENCOBB Y MALE - Weekly Feed & Weight Increase- g/bird
Feed increase
Weight increase
FEED INCREASE - grams
WEIGHT INCREASE - grams
AGE - weeks
0
5
10
15
20
25
0
20
40
60
80
100
120
140
160
180
200
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
23 9 11 8 7 5 4 3 2 2 2 1 1 4 4 7 7 5 3 3 2 3 3 0 5 0
100 180 190 180 160 150 140 130 120 110 120 130 150 160 170 160 150 140 120 100 90 80


VENCOBB430 FEMALE & Y MALE - Body Weight Profile
BODY WEIGHT - grams
AGE - weeks
Vencobb Male
Female Summer lay
Female Winter Lay
4900
4160
4010
3480
3040
2900
1530
1130
1100
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51 53 55 57 59 61 63 65


VENCOBB430 FEMALE & Y MALE - Laying Body Weight
BODY WEIGHT - grams
5200
4700
4200
3700
3200
2700
24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66
AGE - weeks
Female Winter Lay
Female Summer Lay
Male
3040
3630
3780
3950
4100
4160
2900
3450
3600
3770
3950
4010
3480
4040
4320
4560
4810
4900


VENCOBB430 FEMALE & Y MALE - Laying Feed /Bird/Day
FEED- grams
AGE - weeks
Winter Laying Feed
Summer Laying Feed
Male Feed
170
160
150
140
130
120
110
100
24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66
116
160
158
156
154
152
150
150
143
122
119
111
156
140
117
154
152
150
148
148
120
123
128
128
128


VENCOBB430 PRODUCTION - Hen Week%
Hen Week %
AGE - weeks
Winter Lay
Summer Lay
100
90
80
70
60
50
40
30
20
10
0
24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66
5
20
48
70
80
84
86
87
0
5
20
45
68
78
82
85
86
83
80
80
70
70
60
59
54
53

L. Annexure IV

Key points to remember

1. Even distribution of feed and sufficient front (linear) feeder space, consistently good feed quality manufactured as per the Vencobb recommended nutrition standards are keys for successful flock management.

Recommended Progressive Front Feeding Space (inches)			
Phase	0 – 6 weeks	7 – 15 weeks	16 – 66 weeks
Female	4	6 – 7	9
Male	4	9	12

Recommended Flock Grading age (weeks)			
Female	4	9	15
Male	4	9	14

Recommended Feed changeover age (weeks)							
Type of feed	Chick	Grower	Developer	Pre-breeder	Breeder 1	Breeder 2	Male
Female	0 – 4	5 – 15	16 – 21	22 w – 3% to 5% HDP	3% to 5% HDP - 37 to 40 w	38 to 41 w – 66 w	----
Male	0 – 4	5 – 15	16 – 21	22 – 28	-----	-----	29 – 66

Recommended Shifting age (weeks)		
Female & Male	5 – 6 weeks, Broder to Grower	15 – 16 weeks, Grower to Layer

2. Beak treatment (conditioning) is recommended between 4 and 7 days of age and 12 and 13 weeks of age.
3. Female selection is at point of light stimulation and at housing (161st day).
4. Male selection is at point of light stimulation (11%) and at housing (10%).
5. Hen housed number is, female birds count as on first day of 24th week (162nd day).
6. Recommended age for completion of all pre-lay vaccinations is 22 weeks.
7. Twice a week sample weighing until 3rd week, weekly sample weighing from 4th to 40th week and weighing on alternate week from 41st week until culling is recommended.
8. Daily egg weighing from second collection of the day from 5% HDP until around 35 weeks (when egg mass starts declining) and thereafter once a week is suggested.
9. Feed clenup time during brooding ranges between 3 – 4 hours, during growing ranges between 30 minutes to one hour (time reduces as age advances) and during laying ranges from one hour to three hours (in the order of pellet, crumble and mash feed).

M.Annexure V

Adopted from Cobb Breeder Management Guide.

NOTES

VENCO

VENCO RESEARCH AND BREEDING FARM PRIVATE LIMITED

Vencobb

A Joint - Venture between

V H GROUP

VENKATESHWARA HATCHERIES PVT. LIMITED

Venkateshwara House, S.No. 114/A/2, Pune Sinhagad Road, PUNE - 411 030.
Phone : 020-71251530 / 31 / 32 | www.venkys.com

and

Cobb

COBB - VANTRESS INCROPORATED

PO Box 1030, 4703 US Highway 412 E
Siloam Springs, Arkansas, USA 72761-1030
Tel: +1(479)524-3166 www.cobb-vantress.com