Basic Concept of Commercial Layer Management

Presented

By

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Economical Bird

Major cost to produce egg is feed.

To save feed ⇔ Good FCR bird is needed.

Good FCR bird ⇔ Lower body weight bird.

Lower body weight ⇔ Slower growth rate.

1st week weight ⇔ 5th week weight.

But 5TH week weight ⇔ Proper frame size.

Good frame size ⇔ Good production.

Good frame size ⇔ Prolapse control

Increase in 1gm weight at 5th week = 4 more eggs but opposite may not be true

Main target to achieve:-

- Body Weight at 7 Days of Age
- Body Weight at 5th weeks of Age
- Uniformity at 16th weeks of Age
- Body weight development during start of production

Important moments of management

BODYWEIGHT ON 5TH WEEKS OF AGE

- organ development, immune system and skeleton development

- different management tools available for improvement

- basis for a good start and performance later on

- Skeletal development dictates the body weight of sexual maturity.

UNIFORMITY ON 16 WEEKS OF AGE

-uniform flocks much easier to manage

- light stimulation based on bodyweight and not on age

- uniformity more important then bodyweight

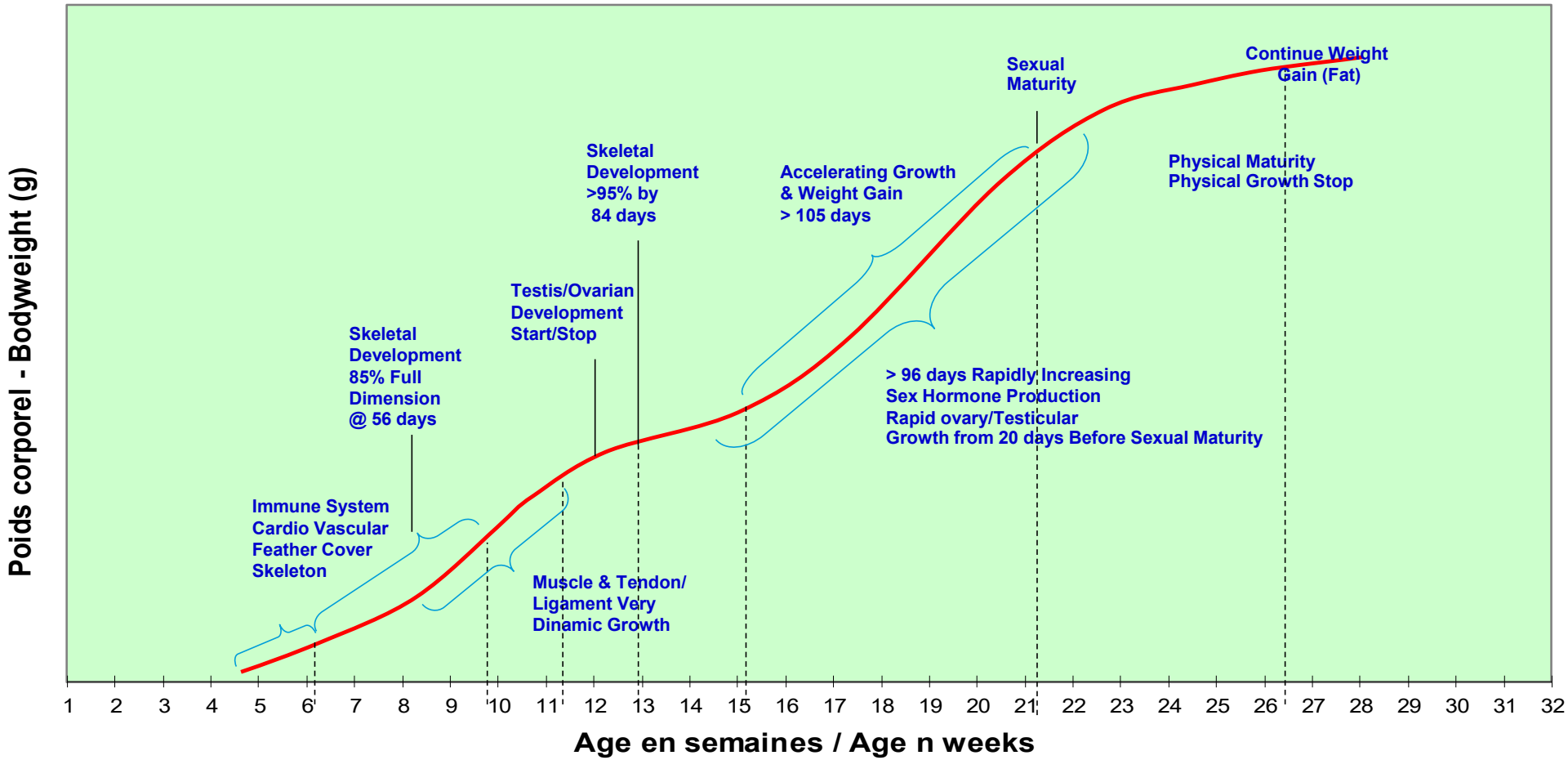
START LAY UNTILL PEAK OF PRODUCTION

-growth between start of production and peak of production important

- between 5 % and 90 % of production a bodyweight growth of 300grams at minimum

- basis for a good laying persistency, egg shell quality

Physiological Development

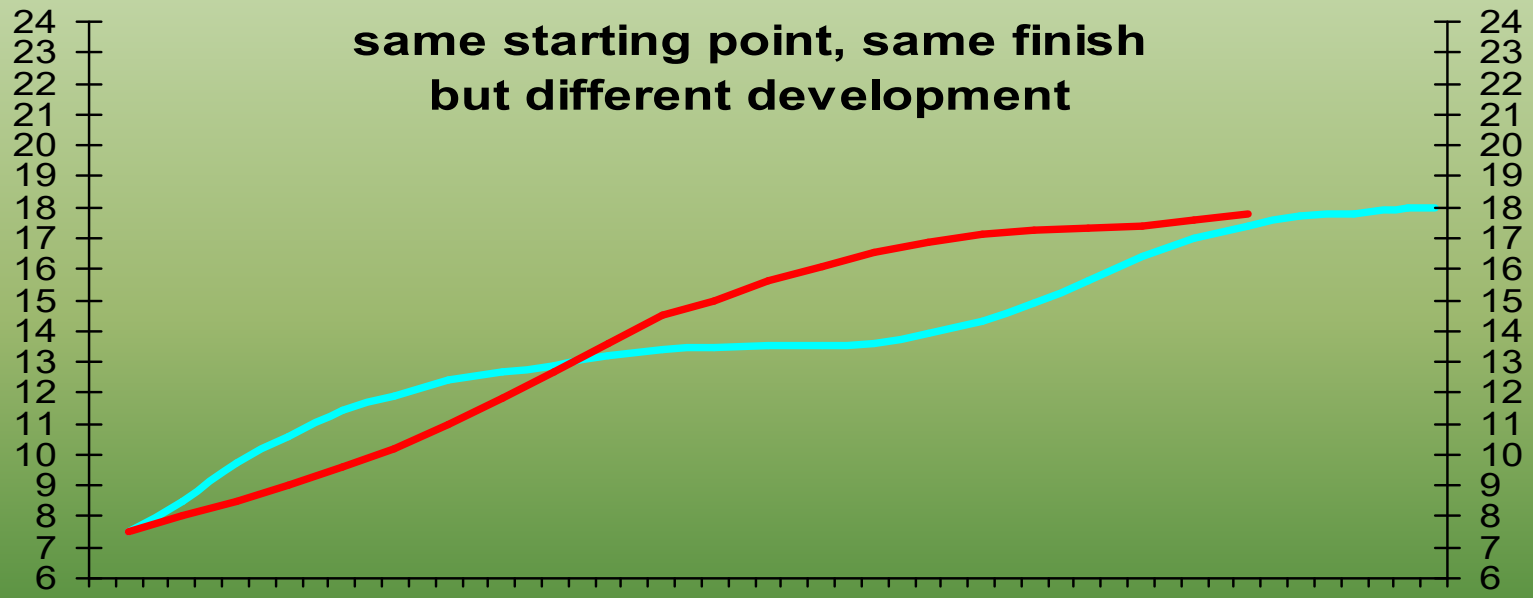


Weight at 5 weeks essential for performance during entire laying period

Correlations between rearing results and the results in the laying period

	Body weight 5 weeks	Body weight 10 weeks	Body weight 16 weeks	Uniformity 16 weeks
Early maturity (% HD prod. 20-24 wks)	+++ .63	+++ .59	++ .39	0
Prod. persistency (% HD prod. 68-72 wks)	++++ .82	0	0	++ .46
Liveability 60 wks	+++ .71	0	0	++ .40
Liveability 72 wks	+++ .65	0	0	+++ .61
Production per hen housed:				
- until 60 wks	++++ .83	++ .30	0	+++ .54
- from 60-72 wks	++++ .94	0	0	+++ .60
- until 72 wks	++++ .93	0	0	+++ .72

BODYWEIGHT DEVELOPMENT



To achieve 5th week body weight :-

- Maintenance of standard temperature, humidity & ventilation during brooding period
- Grading of weak and underweight birds on regular basis and treat them accordingly
- Standard quality chicks to be received (Quality of chicks depend more on naval condition less on average day old body weight)
- Taking average body weight on weekly basis is mandatory so that managemental errors can be rectified in due time to achieve standard body weight at 5th week of age
- Good quality feed as well as allocation of feed per bird per day is important consideration

Importance of 16th week uniformity:-

Over Weight Birds.

1. General Muscle Weakness.

2. Tendency to Lay Large Size Eggs.

3. Excessive Fat around the Reproductive Organs.

4. Reduces Elasticity of Oviduct &Vent Muscles.

5. Too much Pressure to Lay Eggs.

Importance of 16th week uniformity:-

Under Weight Birds

1. Poor Body Frame Development.

2. Immature Reproductive Tract.

3. Poor Elasticity & Strength of Reproductive Tract.

4. Unable to retract Reproductive Tract after Laying.

Importance of 16th week uniformity:-

High Light Intensity:

1. More likely to see & be attracted to the everted Oviduct.

2. Pecking by other Birds.

3. Irreversible Damage.

4. Mortality of Birds.

Importance of 16th week uniformity:-

Increased Duration of Light:

1. Erratic Ovulation.
2. Double Yolked Egg produced.
3. Strech & Weaken the Cloacal Muscle.
4. Oviduct remains outside the body for Longer Time.
5. Pecking by other Birds.
6. Mortality of Birds.

Importance of 16th week uniformity:-

Feed related issues:

At point of Lay with poor uniformity:-

- Overweight birds need Layer Phase-I feed
- Underweight birds need Grower feed
- Standard weight birds need Pre-Layer feed

So it is very difficult to manage the birds having poor uniformity and ultimately leads to poor persistant peak production throughout the laying period

Taking average body weight on weekly basis and routine grading of birds along with proper feeding and medicines upto growing period are the only way to achieve 5^{th} week standard body weight and 16^{th} week uniformity in a flock which ultimately leads to good performance

Taking average body weight during entire laying period on weekly basis is an important parameter for production persistency

Allocation of feed per bird per day depends on average weekly body weight, production status as well as nutritional factor of supplied feed

Routine culling of birds during laying period is also very important

Most important part of management is that we generally increase the feed per bird per day from start of production to peak production considering age of bird, body weight gain, production status, nutritional quality of feed and environmental condition.

But we should have the control over the bird to reduce the feed per bird per day after peak production achieved as the production reduces normally genetically when the bird become older considering other parameters to make the farm commercially viable.

Proper vaccination procedure, right application of medicines and standard bio-security protocol are the major managemental parameters for successful commercial layer farming.

Vaccination issues:-

- Procedure of reconstitution of live vaccine
- Quantity of diluent required for reconstitution of vaccine for Intra-ocular/Intra-nasal route is an important factor for successful vaccination
- Quantity of water required, duration of vaccination including cold chain maintenance of drinking water etc. for drinking water vaccination is also an important factor for effective vaccination
- Quantity of reconstituted live vaccines (like R2B, Pigeon pox etc.) to be injected is very much important
- Procedure of thawing as well as reconstitution of VVMD(LN2 preserved) vaccine is an challenging critical factor for proper vaccination

Medication issues:-

- Selection and dosing of proper medicines is still very much challengeable to the poultry industry
- Duration of treatment depends on health condition of the birds
- During treatment indiscriminate use of antibiotics and other drugs in poultry by other than registered veterinarian should be taken into consideration for human health point of view

Thank you