



Feeding the Dekalb White

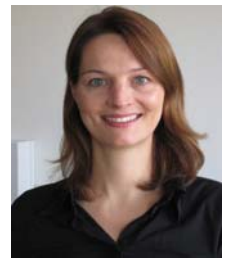
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Introduction

- Paulien Rutten
- Master of Science in Animal Nutrition and Marketing
- Hendrix Genetics, Business Unit Layers
- Technical support on nutrition in global technical team
- For Hendrix Genetics well-known brand



2

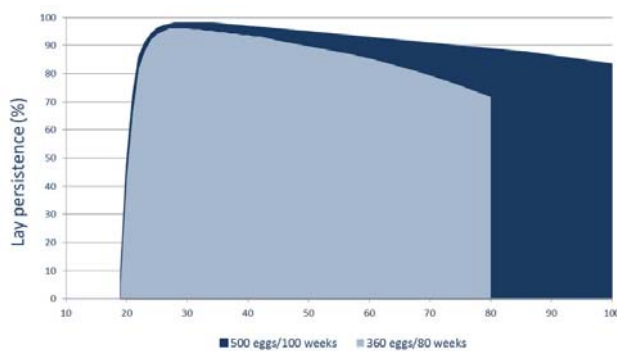
Outline

- Trend towards longer cycles
- Prepare the pullet
- Support start of lay
- Management during lay & late lay



3

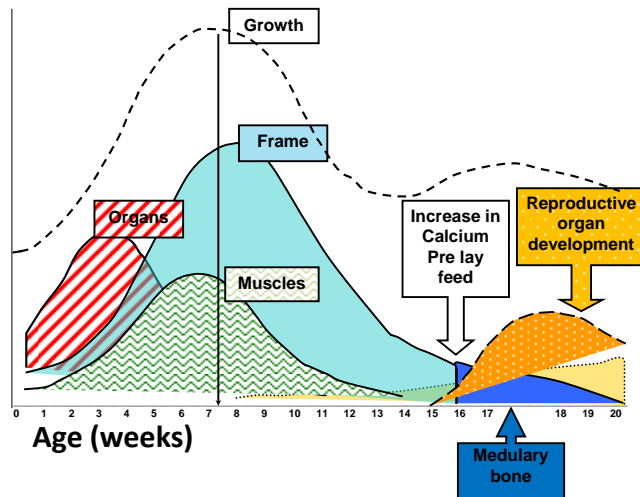
Trend towards longer production cycles



- Thanks to breeding program: improvement of egg production and egg quality late cycle
- Egg producers keep the birds longer
- Birds are still selected for better persistency: improvement will continue for the future

4

Prepare the pullet - Developments in rearing



- Organ development: 0 to 5 weeks
- Skeletal development: peak at 7 weeks
- Gastrointestinal tract development and feed intake capacity development: between 10 and 16 weeks
- Medullary bone development: end of rearing

5

Diet phases in-line with pullet development



Starter

- Organs
- Body weight 5 weeks of age
- Hatch – min. 3 weeks
- Low body weights up to 4-5 weeks
- Crumble

Grower

- Skeleton
- Frame size and strength
- Starter-10 weeks
- Mash or crumble

Developer

- Feed intake capacity
- Training to eat
- 10-16 weeks
- Fiber 4-7 %
- Coarse feed particles
- Mash

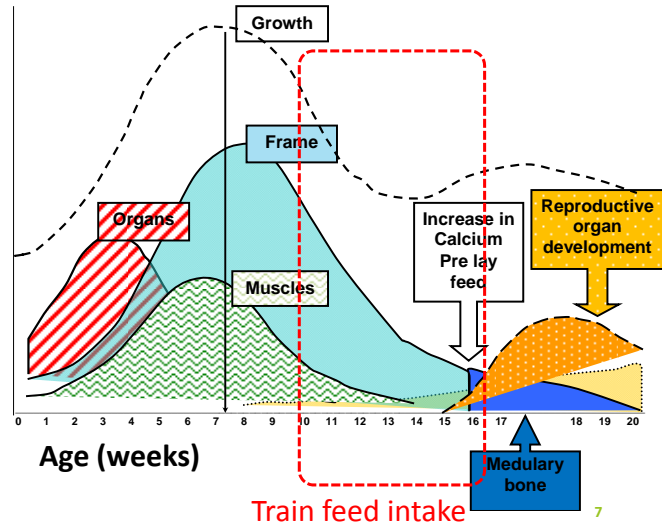
Pre-Lay

- Medullary bone
- Increased calcium requirement
- Min. 10 days for 1st egg
- 16-18 weeks
- Calcium 2,2 %
- Ca 50 % coarse
- Ca 50 % powder
- Mash

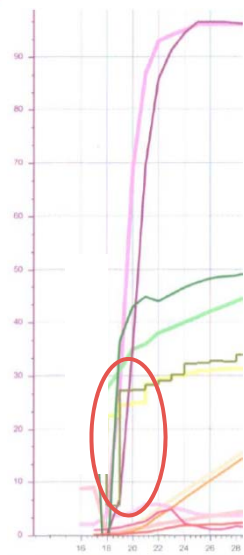
6

Prepare the pullet - Train to eat

- Developer feed
- Feed method = empty feeder technique to develop feed intake capacity (crop and gizzard)
- Diluted diet with high fiber
- Objective: develop sufficient feed intake capacity for period start of lay
- High feed intake capacity at start of lay ensures a sufficient actual feed intake level and thereby prevents nutrient deficiencies of e.g. amino acids
- Train the birds to eat !

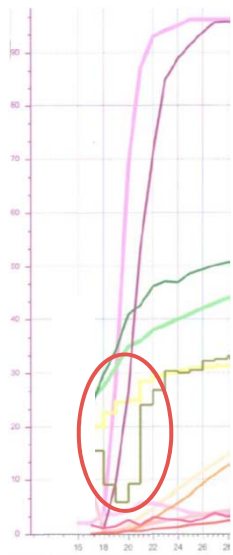


Support start of lay - Ensuring feed intake levels



Increase in feed intake should follow egg production and egg weight increase

- Good**
- Fast increase in feed intake level
- Result in**
- Fast increase egg production
 - Early peak after onset of lay (18-25 weeks)

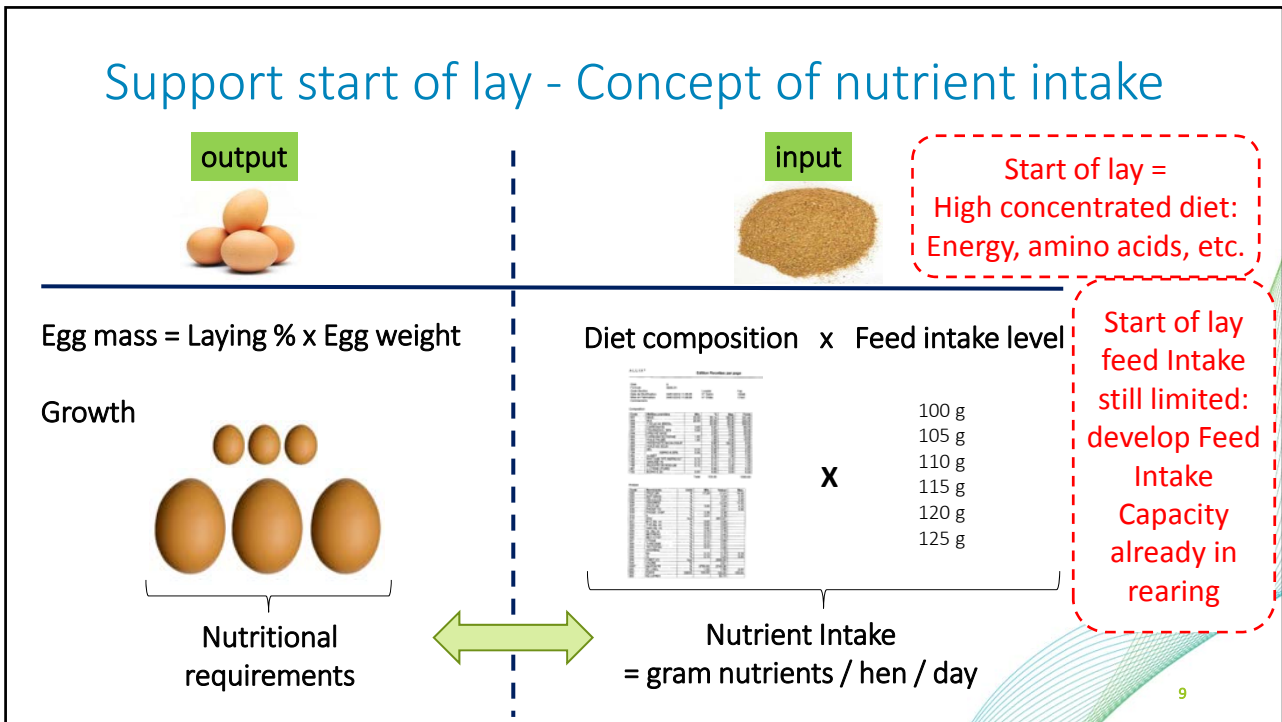


Training on feed intake capacity development in rearing necessary

- Problem**
- Slow increase in feed intake level
- Result in**
- Slow increase egg production
 - Late peak after onset of lay (18-28 weeks)

Risk for post peak dip

Support start of lay - Concept of nutrient intake



Support start of lay - Empty Feeder Technique

Objective

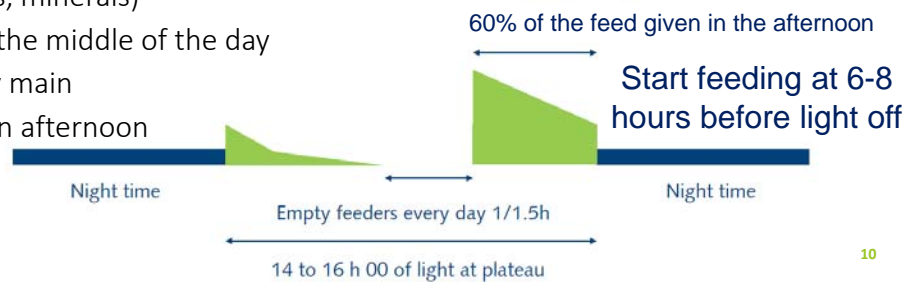
Make sure birds eat all required nutrients daily and have calcium available during calcification

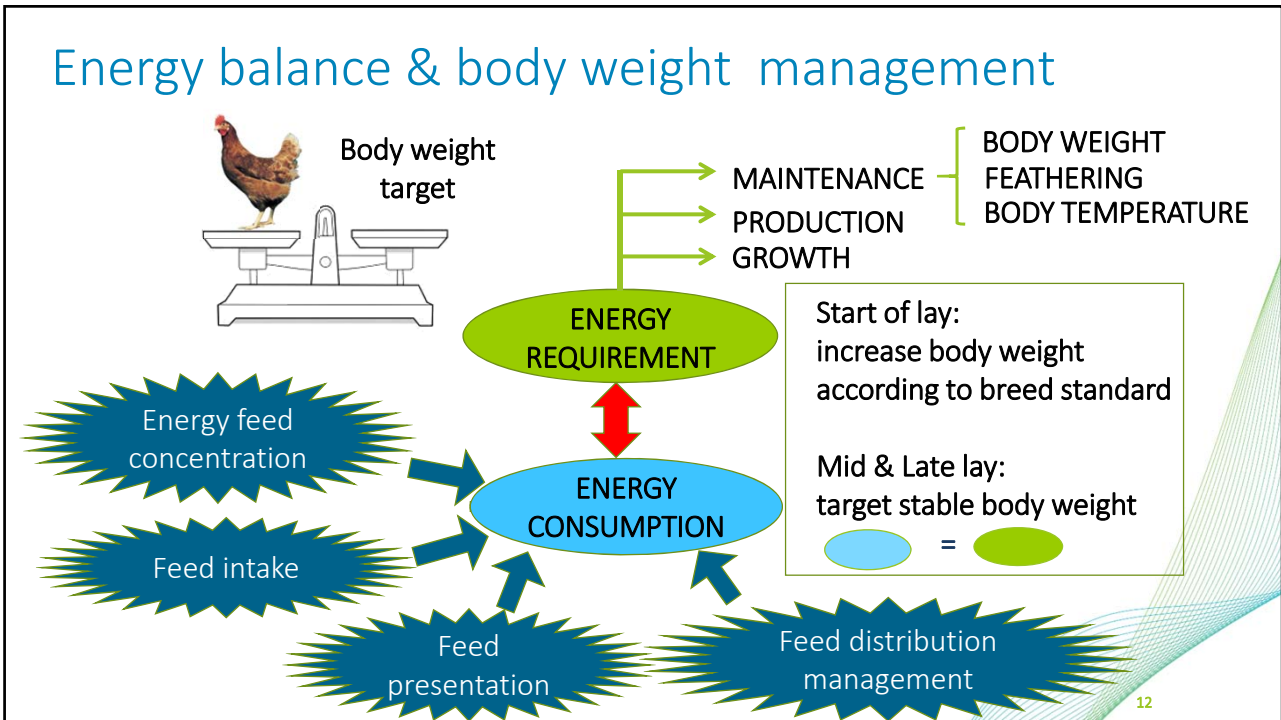
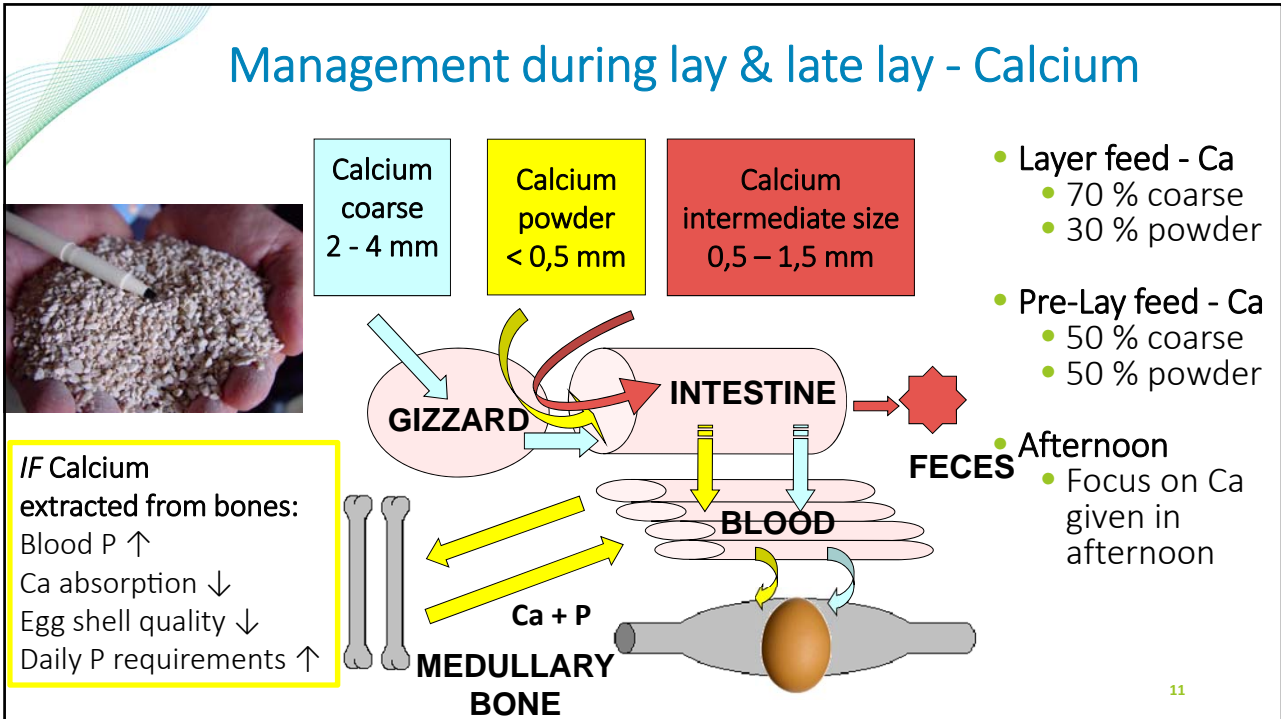
Method

- Main feed distribution 6-8 hours before light off
- Finish feed in the morning including small particles (vitamins, minerals)
- Empty feeders in the middle of the day
- Followed again by main feed distribution in afternoon

Effect

- Less selective eating
- Eat daily ration
- Lower risk for nutrient deficiencies
- More uniform flock
- Higher body weights
- Better egg shell quality





Management during lay & late lay – liver health

- **Body weight management**

- Monitoring



- **Energy**

- From fat instead of carbohydrates
- Vegetable oils; e.g. soy oil
- Not excessive; control body weight

- **Fiber**

- Dilute diet
- Insoluble fiber; oat hulls, sunflower

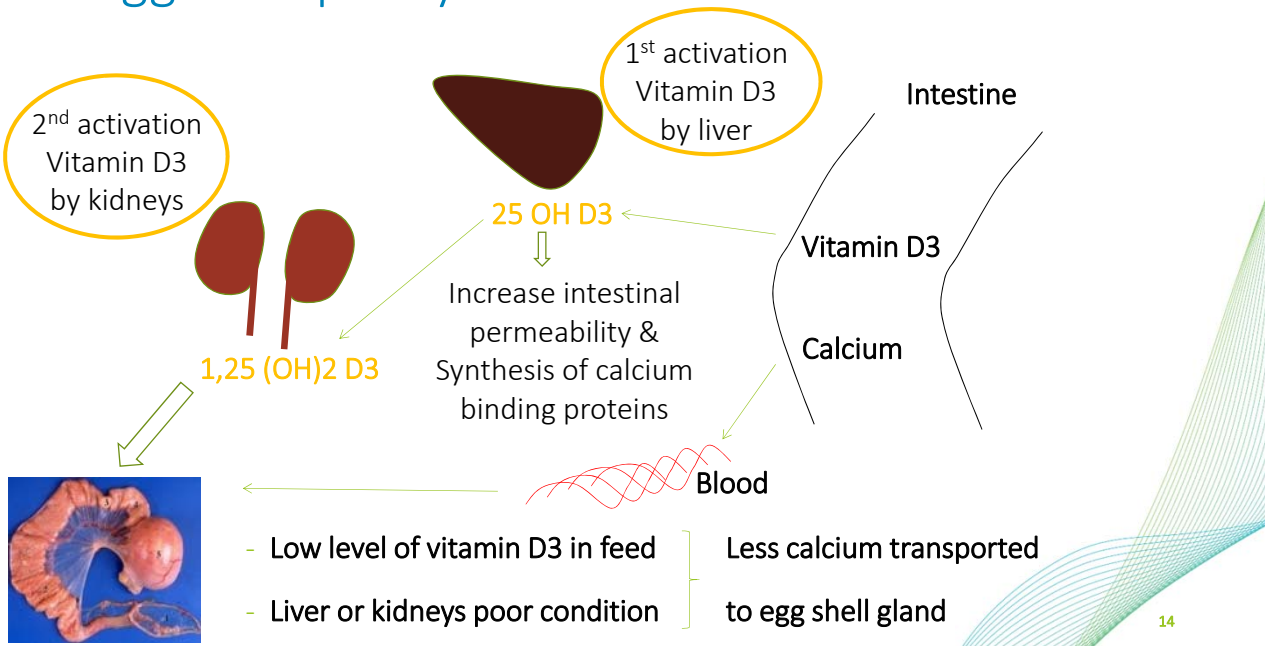


- **Choline**, always added

- Preventive: 1000 ppm; min. 500 ppm
- Curative: 1500 ppm

13

Eggshell quality - Role of vitamin D3 and liver health



14

Conclusion

1. **Trend towards longer cycles** with better persistency and egg shell quality
2. **Prepare the pullet**
 - Diets in-line with development phases
 - Train to eat
3. **Support start of lay**
 - Focus on feed intake capacity
 - Concept of nutrient intake and empty feeder technique
4. **Management during lay & late lay**
 - Calcium supply with coarse particles
 - Liver health with choline

15

Thank you

Better Breeding Today. Brighter Life Tomorrow.

