



INTERNATIONAL

*The key to your profit!*



# Rearing 3-17 weeks

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# Do we need to do something extra?

Determine the strategic road with:

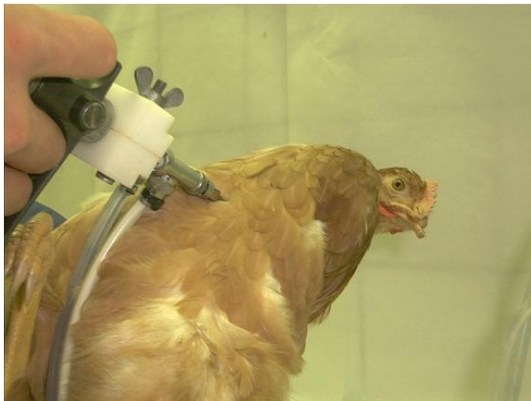
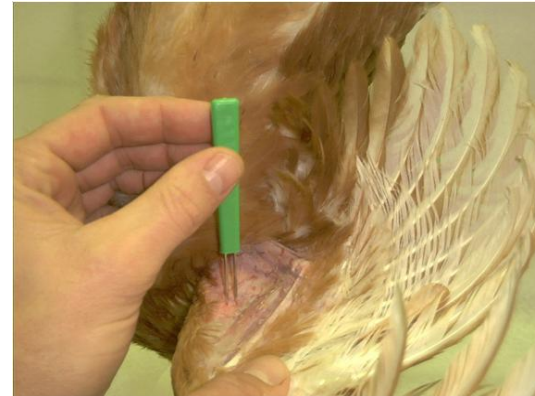
*Advisors from hatchery, feedsuppliers,  
Veterinarian*

*and/ or other involved parties*

# What do we like to know before rearing in cage?

1. Production: Number of eggs, Kg of eggs..
2. Age of the Layers!
3. Kind of feed
4. White or Brown layers

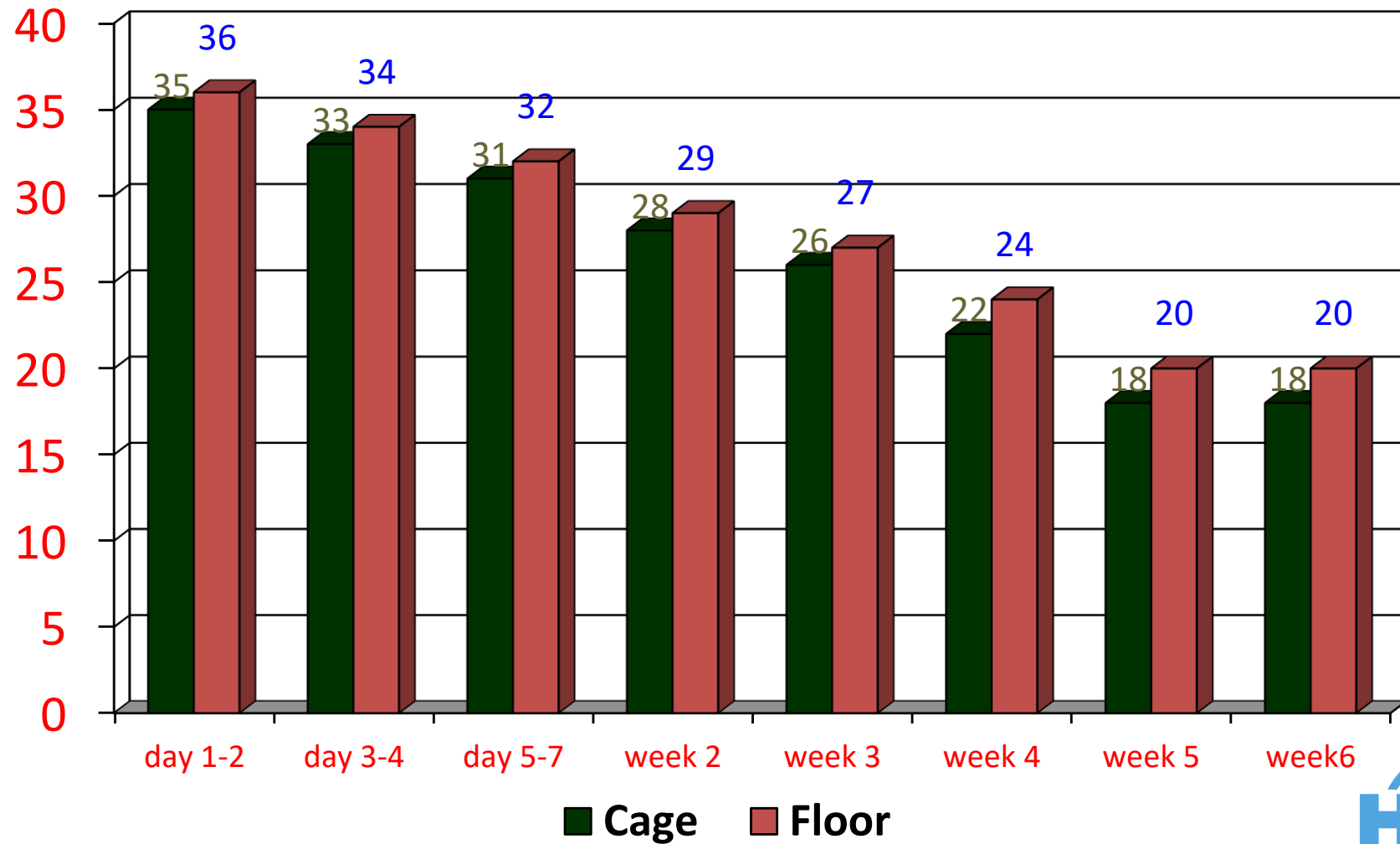
# Vaccination Program



Discuss with local veterinarian for best choice, also  
looking  
at economic benefits

# TEMPERATURE

Always reduce temperature gradually!



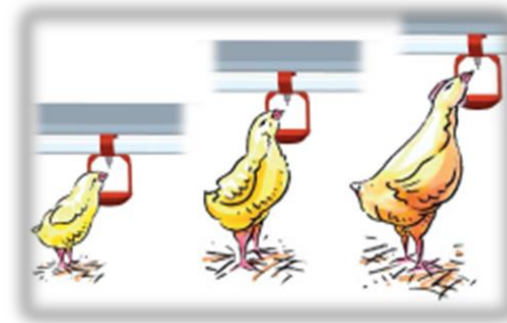
# Equipment Requirement

**Table 17: Equipment Requirement for Rearing Period**

Equipment	Age in Weeks	Requirement
Chick founts	1	1 fount (4–5 l) for 100 chicks
Round drinkers	to 20	1 drinker (Ø 46 cm) for 125 birds
Linear drinkers	to 20	1 running m for 100 birds
Nipple drinkers	to 20	6–8 birds per nipple
Chick feeding trays	1–2	1 tray for 60 chicks
Cut off chick cartons	1–2	1 carton for 100 chicks
Round feeders	3–10	2 feeders (Ø 40 cm) for 100 birds
	11–20	3 feeders (Ø 40 cm) for 100 birds
Chain feeders	3–10	2.5–3.5 lin. m for 100 birds
	11–20	4.5 lin. m for 100 birds

*Follow the Instructions of Manufacturer!*

**Check the drinkers height regularly especially in first weeks of Rearing!**



**Too Low**



**Too High**



**Right Height**

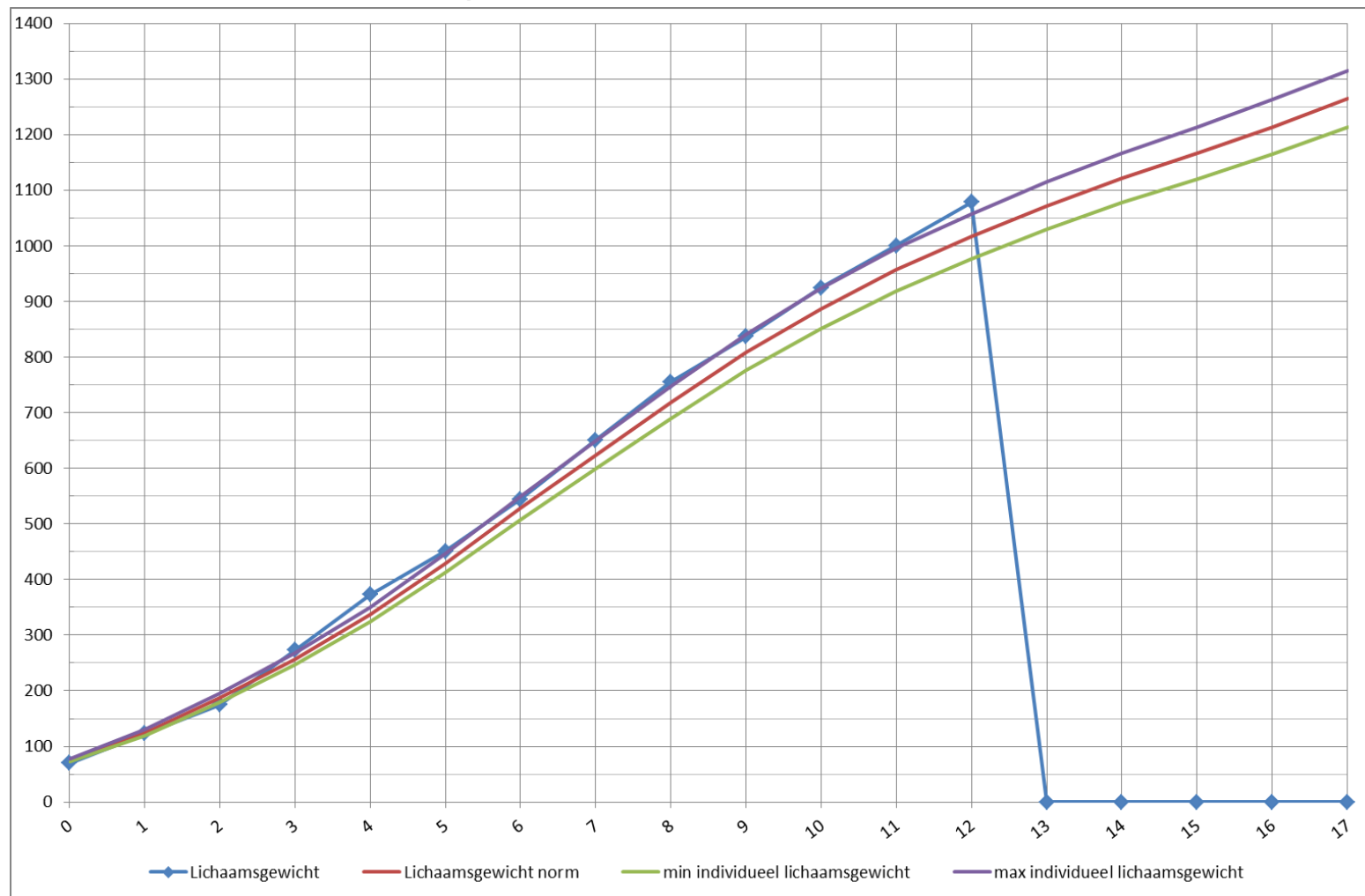
Pictures: LUBING GmbH & Co. KG

# Development of the chicks

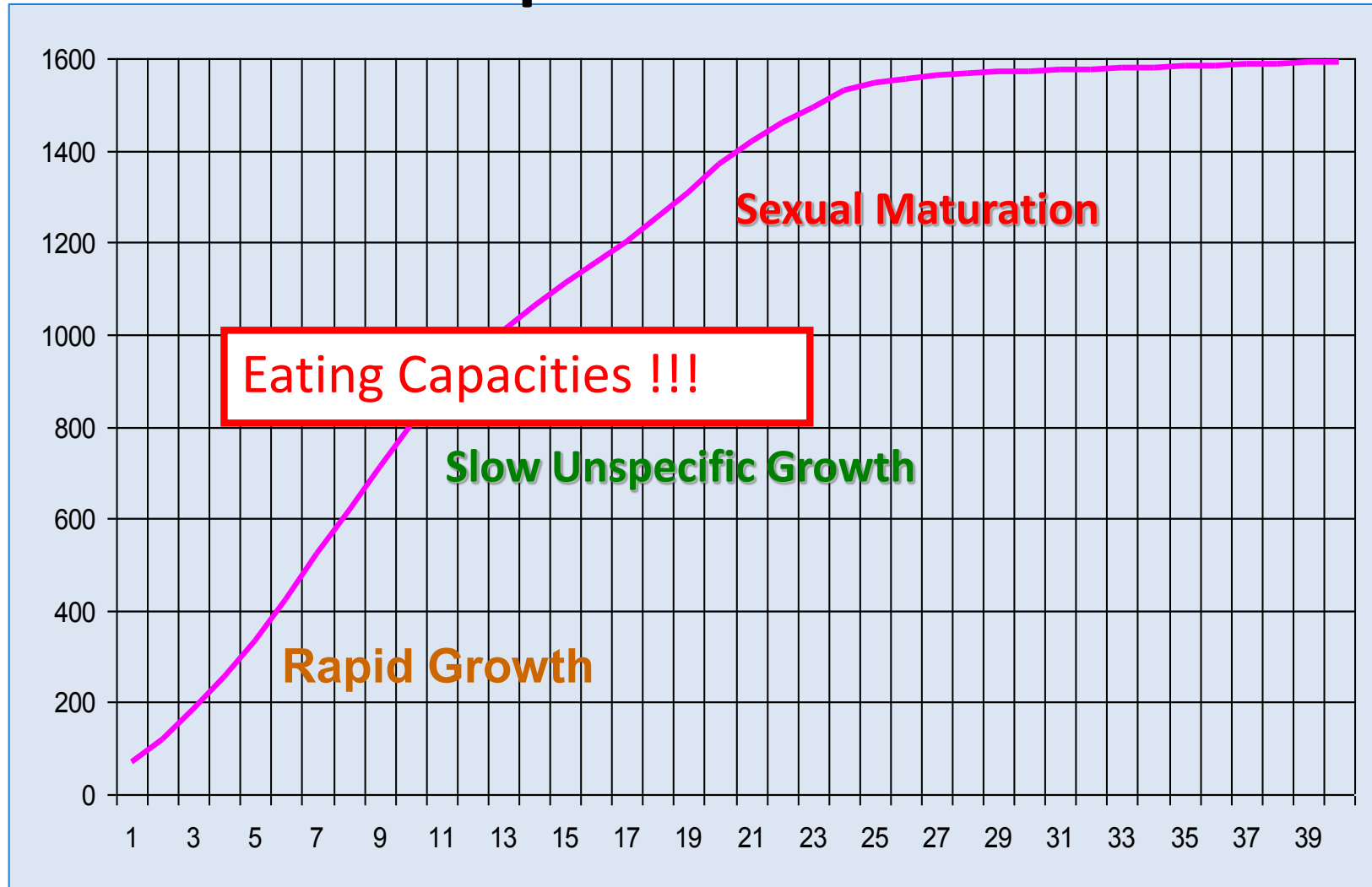
- The birds (and not only ours!) has one big genetic failure: They can't read!
  - *No managementguide*
  - *No lighting program*
  - *..*
- Therefore, it is the pulletgrower who has to determine if everything is „on track“:
  - *Take bodyweights from 1st week onwards, once a week*
  - *Not necessary to take individual BW, only if necessary.*



# Development of the chicks



# Development of the chicks



# Bodyweight and uniformity

*bodyweight growth is influenced by:*

- Stocking density
- Feed and water intake
- Feed composition (starter, rearing, developer)
- House temperature
- Quality of the debeaking, if done
- Housing system, feed distribution
- Health status (vaccination/diseases)
- Management

# When do need to take boyweight?

1. Every day
2. Every week
3. Every Month

# Bodyweight in rearing



- Weight weekly 1% or at least 100 birds
- Take bodyweight of all the birds in the cage
- Compare with the Management Guide
- Calculate the Uniformity
  
- Make management decision if needed (change type of feed, amount, training the birds to eat)

# Bodyweight and uniformity

## *example of calculating uniformity*

- 100 pullet weight is total 85,200 grams
- Average weight is 852 grams/bird
- Weight range is  $852 \times 10\% = 85$  grams
- Lower value (-10%)=  $852 - 85 = 767$  grams
- Upper value (+10%)=  $852 + 85 = 937$  grams
- 90 birds weighed within 767 and 937 grams
  
- 90 from 100 birds = 90% uniformity

# Bodyweight and uniformity

**High body weight at 5 weeks of age (standard or above) gives:**

1. better laying performance
2. earlier onset of production
3. higher egg numbers in late laying period (persistence)
4. improved laying livability

**High body weight at 10 and 16 weeks :**

1. gives early maturing flock

**Good Flock uniformity at 16 weeks is essential for:**

1. good laying livability
2. persistence of production

# Where and when to check bodyweight!!





# Starter feed to grower feed!!!!

- Starter 1-3 weeks
- 350 g / Bird until 3<sup>rd</sup> Week
- 550 g / Bird until 4<sup>th</sup> Week /+ 200 g / Bird until 4<sup>th</sup> Week (+ 1 Cent)\*\*
- 790 g / Bird until 5<sup>th</sup> Week /+ 440 g / Bird until 5<sup>th</sup> Week (+ 2 Cent)\*\*

\*\* Difference Chick Starter to Grower = 4 €/100 kg

- Feed change after the body weight is on target !

# Grower to Developer feed!!

- **Grower 3-8 weeks**
- **1765 g / Bird until 8<sup>th</sup> Week**
- **2150 g / Bird until 9<sup>th</sup> Week / + 385 g / Bird until 9<sup>th</sup> Week ( + 8-12 Cent)\*\***
- **2555 g / Bird until 10<sup>th</sup> Week / + 790 g / Bird until 10<sup>th</sup> Week (+ 16-24 Cent)\*\***

\*\* Difference Grower to Developer = 2-3 €/100 kg

Feed change after the body weight is on target !



# Midnight lighting & feeding (midnight snack)

- It is an additional period of lighting given during night to improve overall feed intake
- *Help birds in rearing period to increase the body weight*
- Help birds in production to fulfill their needs of nutrients to sustain the production longer

# How many hours we need to have darkness before, and after midnightsnack period?

1.4 hours

2.5 hours

3.3 hours

# Precautions for successful midnight feeding

- Duration should be 1.5 – 2 hours (at least)
- Run feeders once light on to stimulate eating
- Also water during this period!
- A minimum of 3 hours of darkness is required on both sides of midnight lighting & feeding
- **No changes** should be made to the **regular lighting program** when midnight lighting & feeding is introduced.

# Lighting Programme

## *influencing factors*

- House design: *Closed, light tight, open sided*
- Latitude/ Longitude: *North/South, East/West*
- Target body weight: *Egg size, feed consumption*
- Hatch date: *Year Season, Natural day light*
- Nice Tool: <https://apps.hn-int.com>

# Ligthing Programme

## *windowed/ open houses*



# Ligthing Programme *windowed/ open houses*





# Ligthing Programme

## *windowed/ open houses*



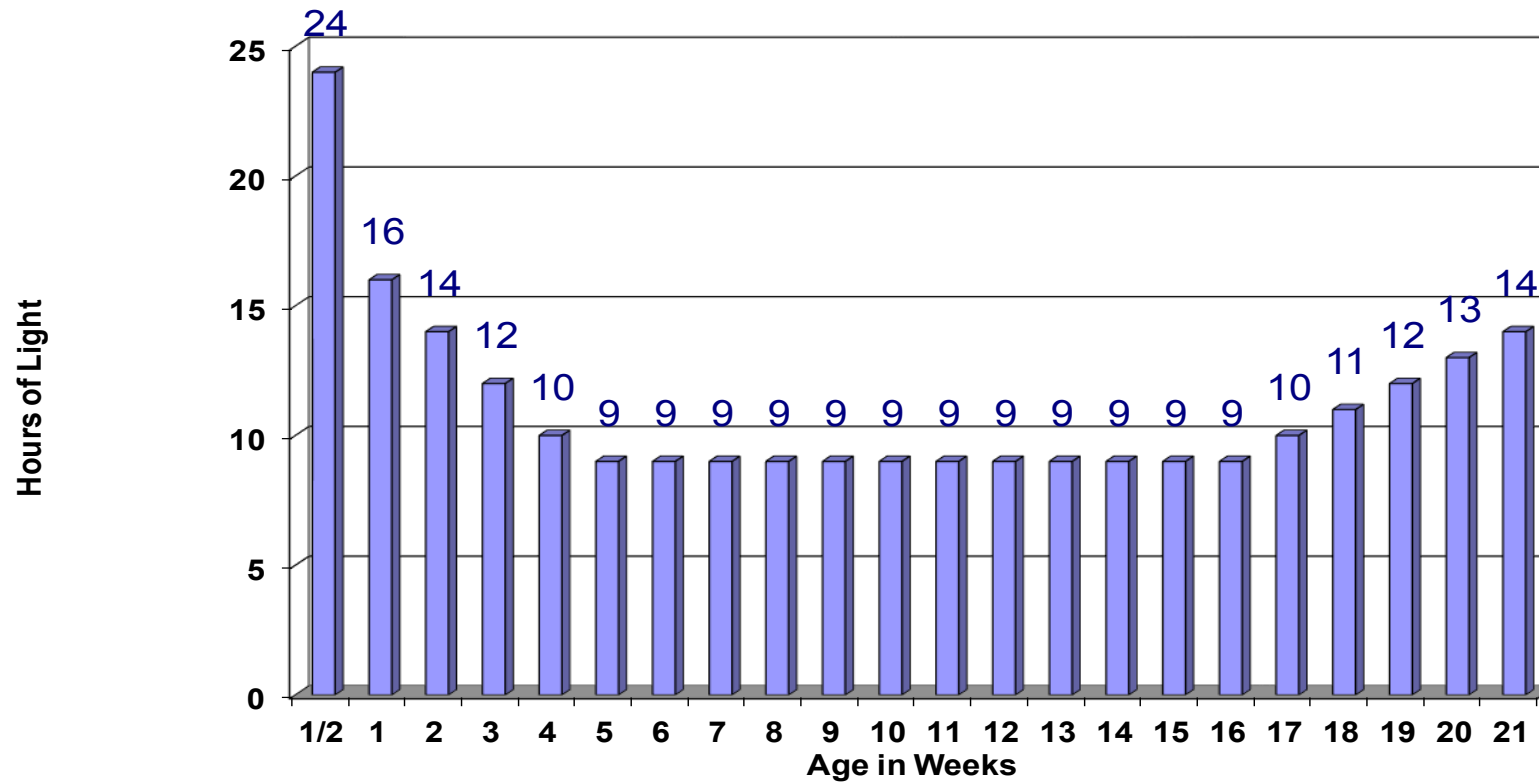
# Light (Rearing)



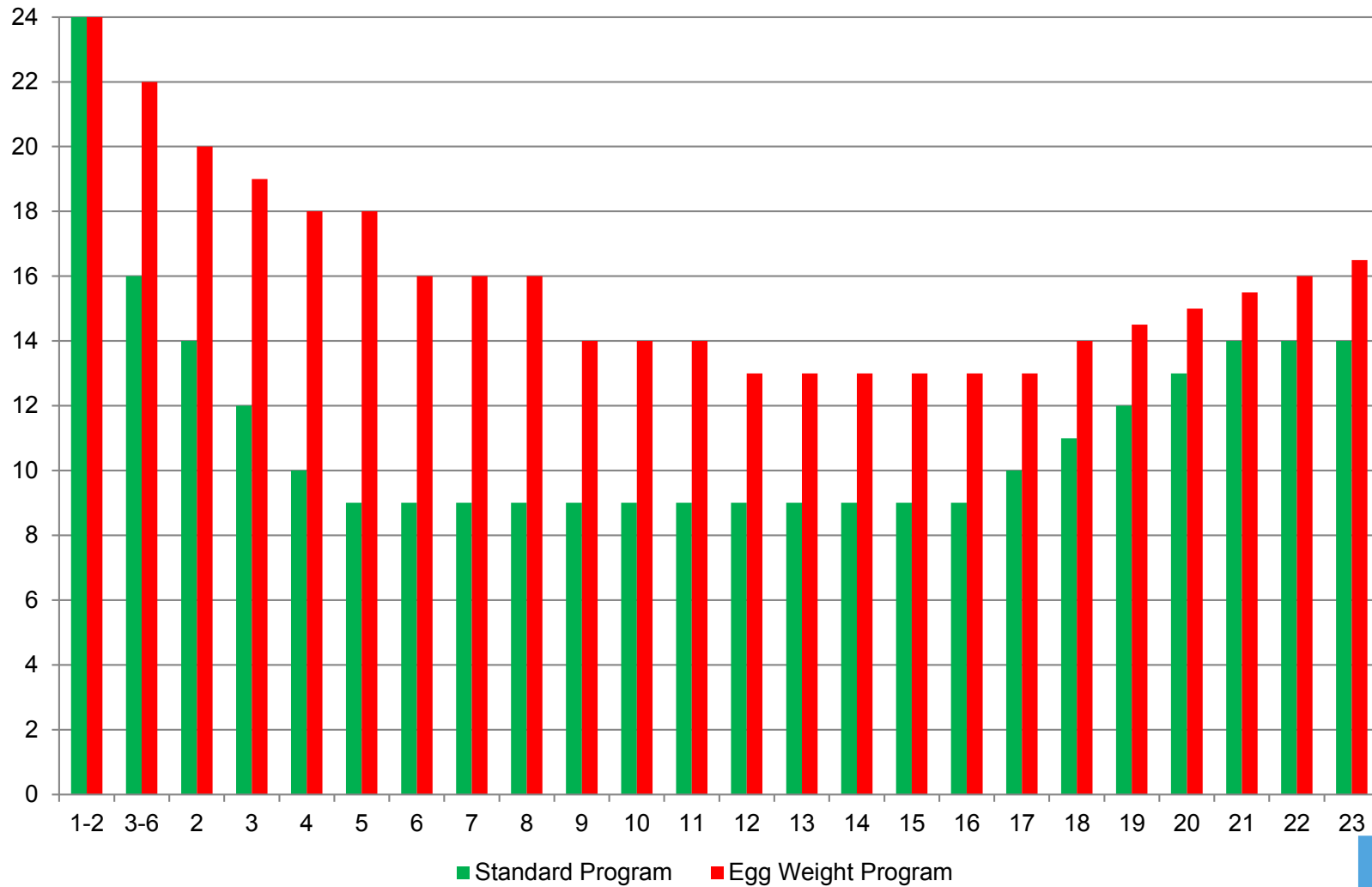
# Preparing

- Visit the pullets during the rearing period
- Placement of the birds at the right time!
- Important: Bodyweight & uniformity of the birds
- Light intensity and day length

# Standard Lighting Program



# Lighting Program for High Egg Weights ???



# Step Down Period

- Step wise reduction of day length from placement until age of 4 to 8 weeks
- Around 3-10 weeks, be extra aware of pecking, then reduce the light intensity. (Temporarily)
- The day length will remain constant on 8-10 hours
- The reduction of day length makes the birds sensitive to light
- The faster the day length reaches the constant length the more sensitive the birds become for light
- Don't stick to the lighting schedule. If the birds don't reach their bodyweight, don't reduce the light further until they are back of target
- Preferable reduce the daylight in the morning

# Constant Period

- The day length during the Constant Period should not be chosen too short.
- The birds still have to grow. They need some time to eat to supply bodyweight gain.
- If the day length is chosen too short, this can cause an insufficient weight gain, because the birds have not enough time to eat.
- Never increase the day length during this period. This can induce an advanced onset of lay.

# When can we start to stimulate with extra hours light?

1. When we like to have eggs
2. After transfer
3. When we reach target bodyweight and uniformity



# Stimulation Period

- The extension of the day length and the light intensity will stimulate the sexual maturation of the birds.
- Only start to increase day length after reach the target bodyweight and uniformity.
- When starting prolongation of the day, never reduce the light hours afterwards. This can induce molting and can impact the whole production period negatively.

# Feedmanagement

Does it work in commercial  
rearing/layer

farms, long feed chains &

high stocking densities ?

# Feed



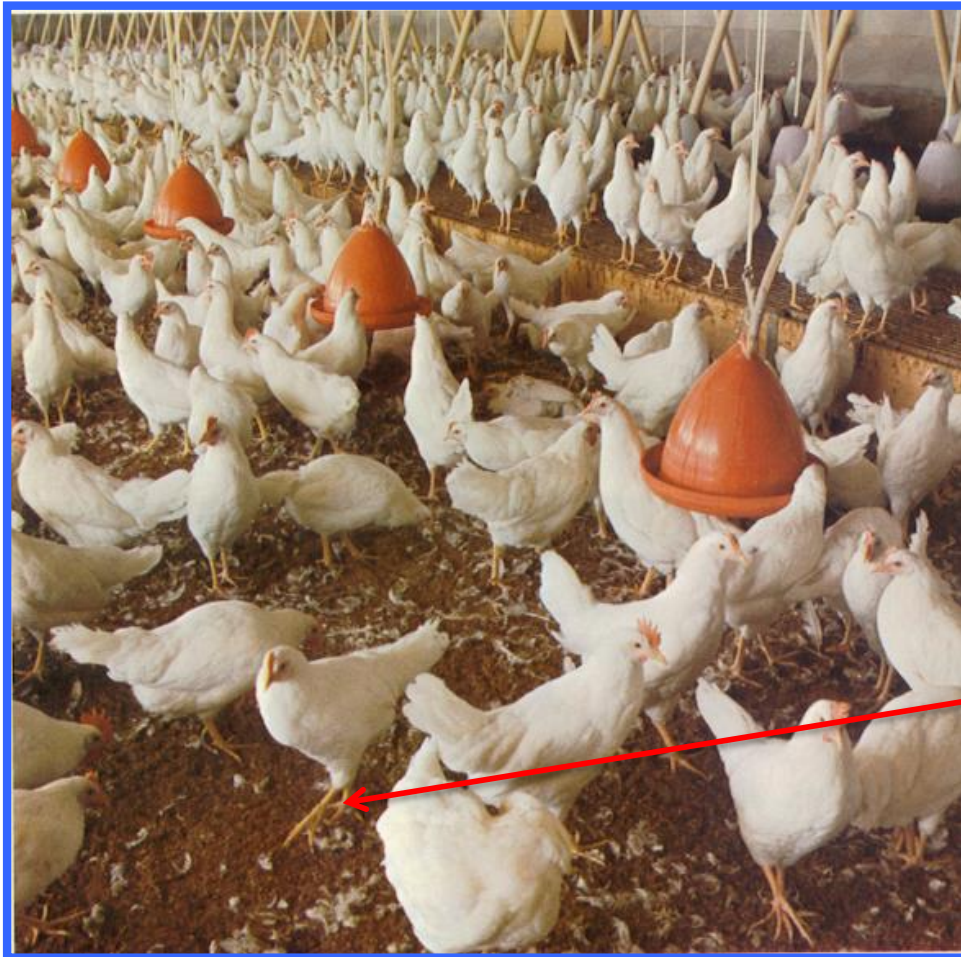
# Quality of water



# Quality of water

- Every day fresh water
- Vaccinating or other additives  
by the water system (Dirty the lines?)
- Test the drinking water on a regularly base

# Maturation of wingfeathers 18/19 weeks



Week 3: fluff to feathers, first molt

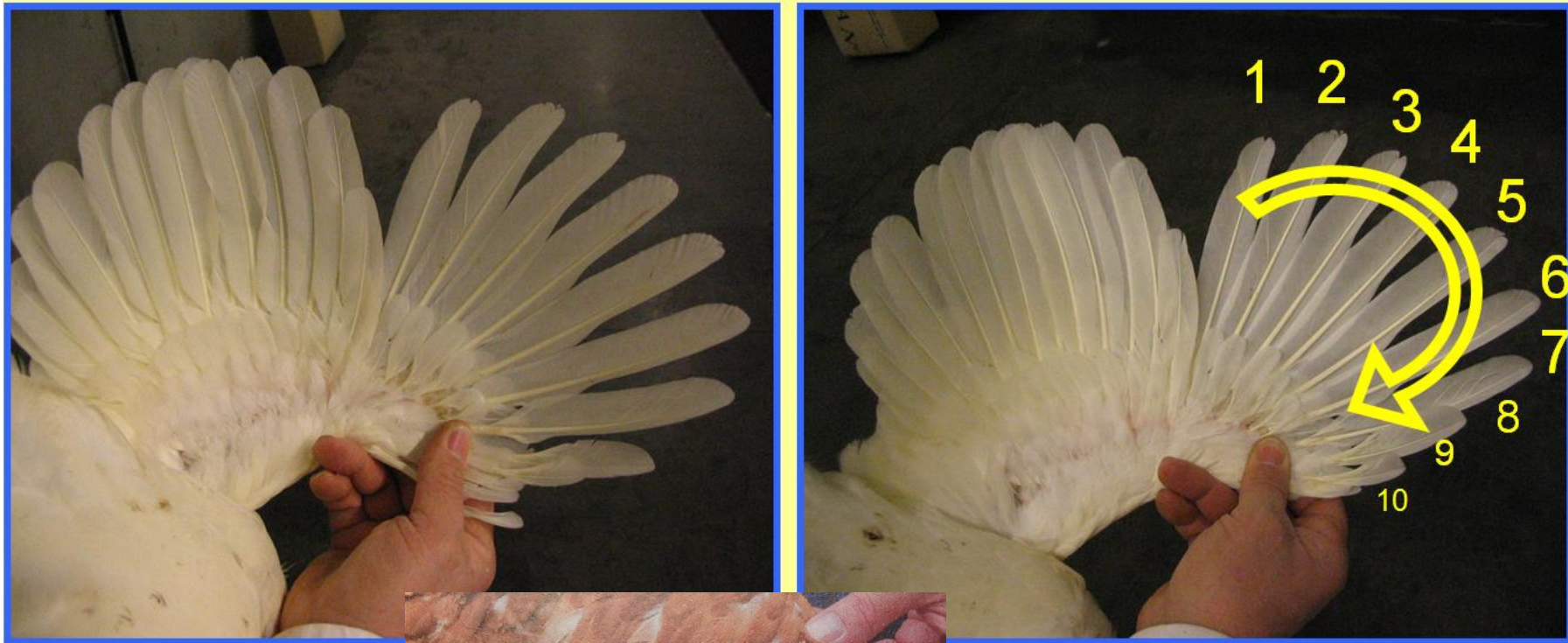
Week 9/11: first partial 2.molt

Week 12/16: second partial 2.molt

Week 17: last partial molt in rearing

Good sign: feathers on the floor at 17/18 weeks!

# Maturation of wingfeathers 18/19 weeks



If all feathers have molted (1-10) then it is the right time to start light stimulation



## Growth rate of wingfeather

Total takes 6 weeks time:  
75% length in first 3 weeks,  
25% length in last 3 weeks



# Transfer from rearing to production

- Optimal age for transfer >> 17 weeks old
- Check bodyweight & uniformity
- Check feathers and signs of pecking
- Take blood samples, freeze blood serum?
- Visit the pullets during the rearing time
- Know the light and vaccination program in rearing.
- Be present during transfer as a Farm Manager



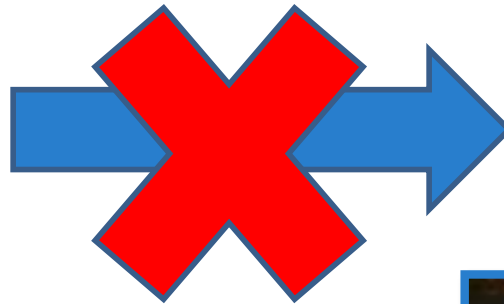
# Preparing

- New poultry people.....  
(Rearing/Production) Practical training.
- Discuss before the DOC, or pullets will be placed, settings of:
  - Lights*
  - Feed*
  - Water*
- Functions & settings from computer & clocks.

# Preparing



**The more closely the growing house and facilities resemble the future production system, the easier will be for the pullets to settle down in their new environment after transfer to laying house!**

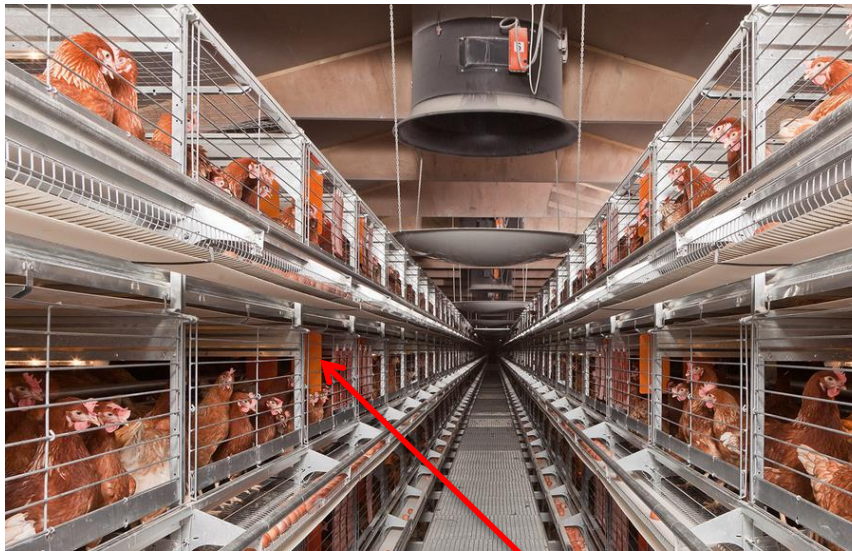






# Enriched Cages

Higher than normal cages and drinking lines at the side!



Dark area for egg laying



Sitting perches

Scratching area

# Conclusion

*An excellent manager will still be able to perform with acceptable results although the circumstances are not perfect*

***but...***

*A manager with poor skills will be able to spoil the birds (& the results) even in a Situation with the best circumstances!!!*

# Questions????

