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# Parent Stock Management

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# Topics to discuss

- Lighting and Eggweight
- Male management
- Nestboxmanagement
- Fertility
- Hatching egg collection
- How to prevent floor eggs



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Lighting and Egg weight

# HE weight

- Eggweight PS female line is lower than commercials
- „Lower“ HE-weights provides better hatch results
- Risk for too low eggweights and small chick-weight with early onset of lay
- Avoiding too high HE-weight by managing nutrient intake is at PS level mostly not necessary
- Lighting Programs to avoid early onset of lay.

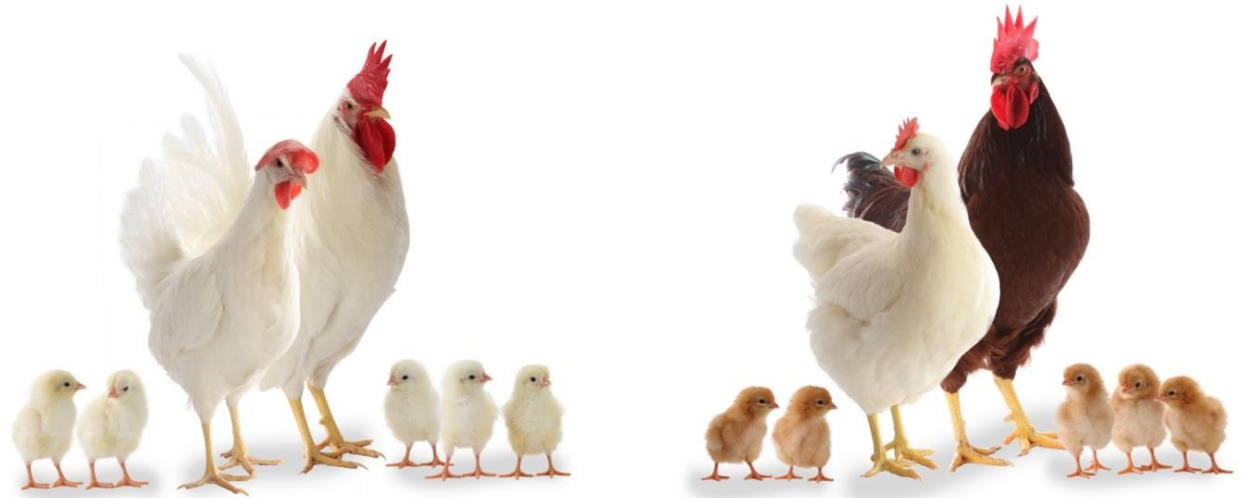
# Difference in Step-Down Programs

- Slow Step Down : constant daylength reached on approx. 8 weeks of age ; BN Parentstock
- Late Step Down : after 9 weeks of age decreasing daylength from 16 to 9 hours of light ; NC/SN Parentstock
- Quick Step Down : constant daylength reached on approx. 4/5 weeks of age ; SN/NC/CN/BN/Tint commercials



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## Male Management

# Male Management



# Male Management





# Can we rear female and male together?

1. Yes

1

2. No

2

# Male Management



# Male Management

- Normally our customers get 10-15% males at day-old (Europe 10-12%)
- Always rear males together with females from day-old
- Option to bring male-percentage back to 9% at 6 weeks of age
- Start with 8-9 % good BN males (good selection during transfer) at housing (18-20 weeks)
- Start with 3-4% SN/NC/CN males after transfer, and Park to other Males to bring in slowly in the 3-4 weeks after....
  
- Male selection :  
During or at end of rearing period

# Male Management

## Rules for housing / transfer:

- Only house males with good total development
- Good feathering
- If the females are further developed than males, house males first (BN)
- If the males are further developed than females, house males first. (SN/NC/CN)
  
- Straight, long and shiny legs
- Thin, lean and mean!

# Male Management



# Male Management



Cowboy Legs ?



# Male Management



Cowboy Legs ?

# What is the cause of these cowboyleggs?

1. Genetic

1

2. Injuries

2

3. Wrong feed

3

4. Wrong lighting program

4



# Male Management



**The cowboy legs have been significantly reduced from 20% to 5% after I suggested not using pre-starter to male chicks.**

Lin, 2014

## Cowboy Legs:

- Check Mineral supply
- Decrease the early growth of the males:
- Skip starter feed
- Raise males & females separate for the first 3 weeks

# Male Management



## Full comb:

- Males are more dominant (BN)
- Less impact of heat stress, because the males are able wetting their combs in hot climates

# Why cut the comb of the males?

1. Less feed and water intake

1

2. Better mating

2

3. Less aggressive

3

# Male Management



## Full comb:

- An extra care should be taken on feeding
- Take care on drinkers/Cups

## Without comb:

- Less aggressive
- Selection sexing errors

# Male Management



# Male Management



- Beak treatment of males is under optimal conditions not necessary !!!
- If working in open house conditions – high light intensities only touch the beak !



# Male Management



# Male Management

- Keep male percentage on 7-8 % during production
- On-going male selection is necessary (mortality rate males < females)
- Select all crippled males
- Look for males with footpath problems or bumble feet
- Select all males with pale combs
- Bad males will often hide in the nests (close nest at selection)
- A reduced % males is not a problem, as long the quality of the males is good (>6%)
- Productive, active males have a large, wet & red cloaca
- Productive males are always alert and try to protect their females



# How can we check if Male is active?

1. Big, Red comb

1

2. Large, Wet, Red Cloaca

2

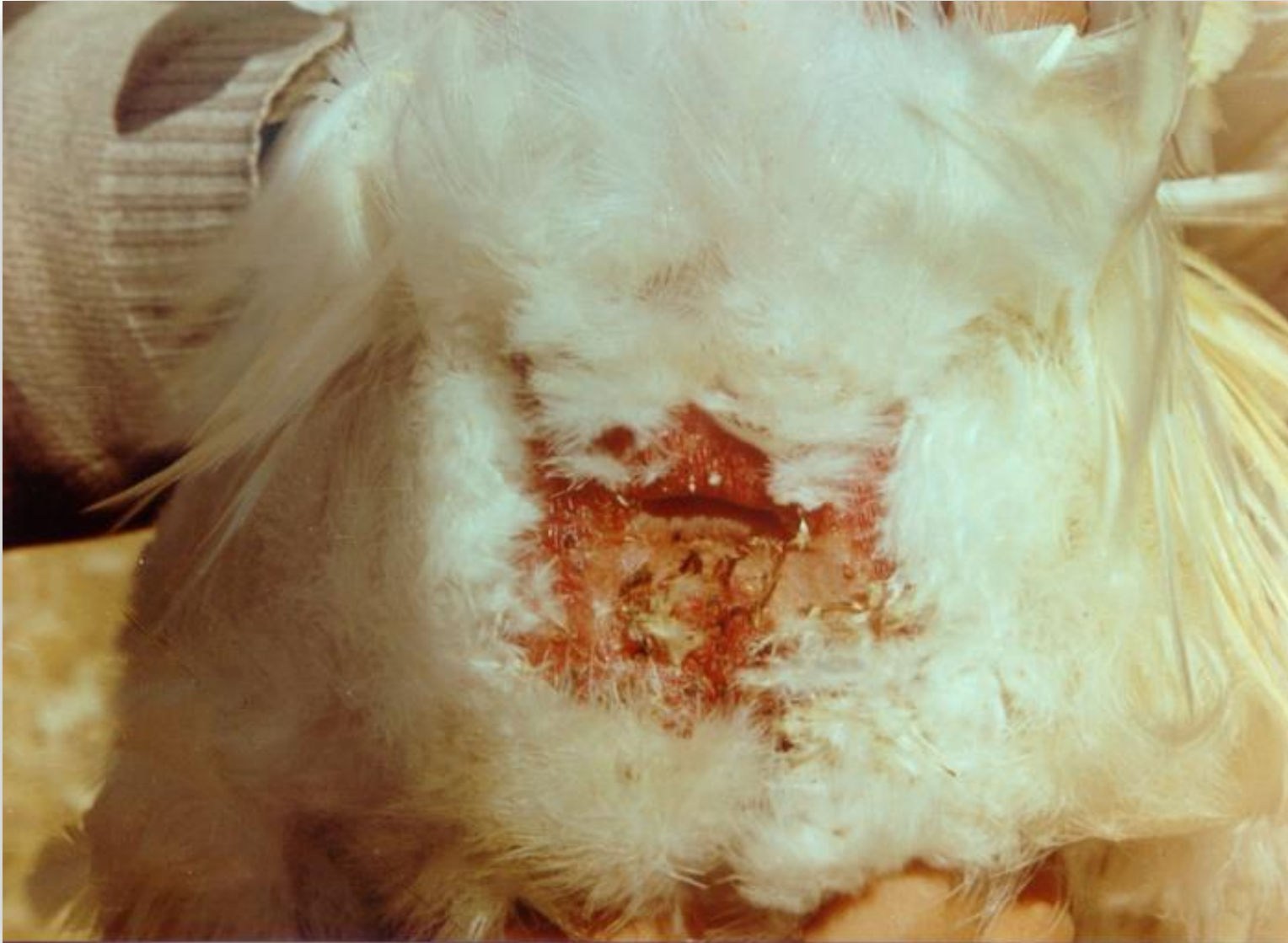
3. Making a lot of noise in the morning

3

# Male Management



# Male Management



# Male Management



- Alert males
- Good distribution
- Red combs

# Male Management



# Male Management

- Aggressive behavior is often starts in the afternoon.
- Males of the white lines (SN/NC/CN) are often more aggressive then males from the brown lines (BN)
- Males are coming together and encircle the females.

# Male Management

## Effect of aggressive males

- Females are hide themselves in the nestboxes. (Dirty nestboxes)
- Females are kept away from feed and water
- Some females be raped by the Males, and eggs are broken inside. (Coli, mortality...)
- Bad fertilization

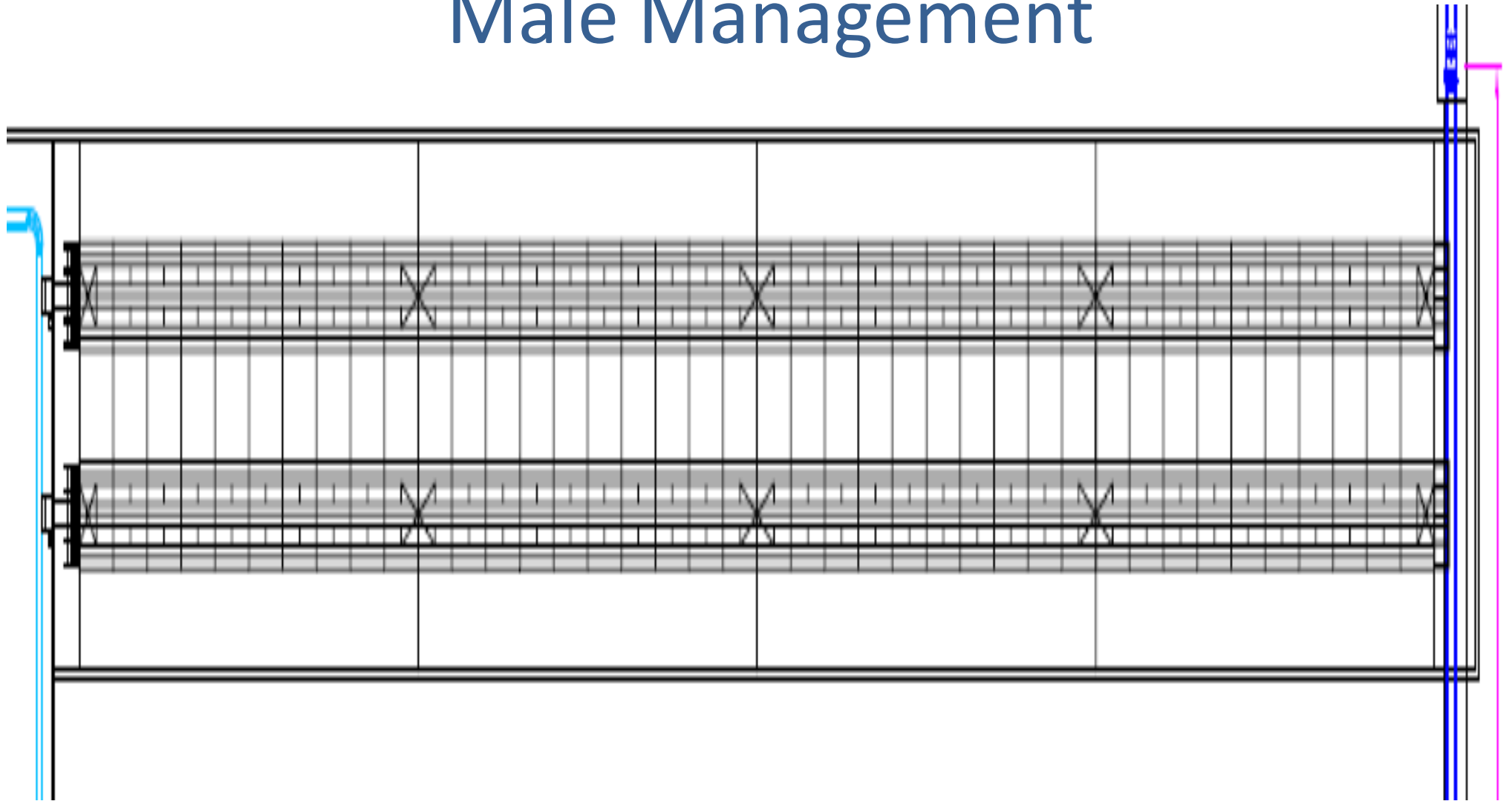
# Male Management

In this situation release the males partly/slowly to the whole house !





# Male Management





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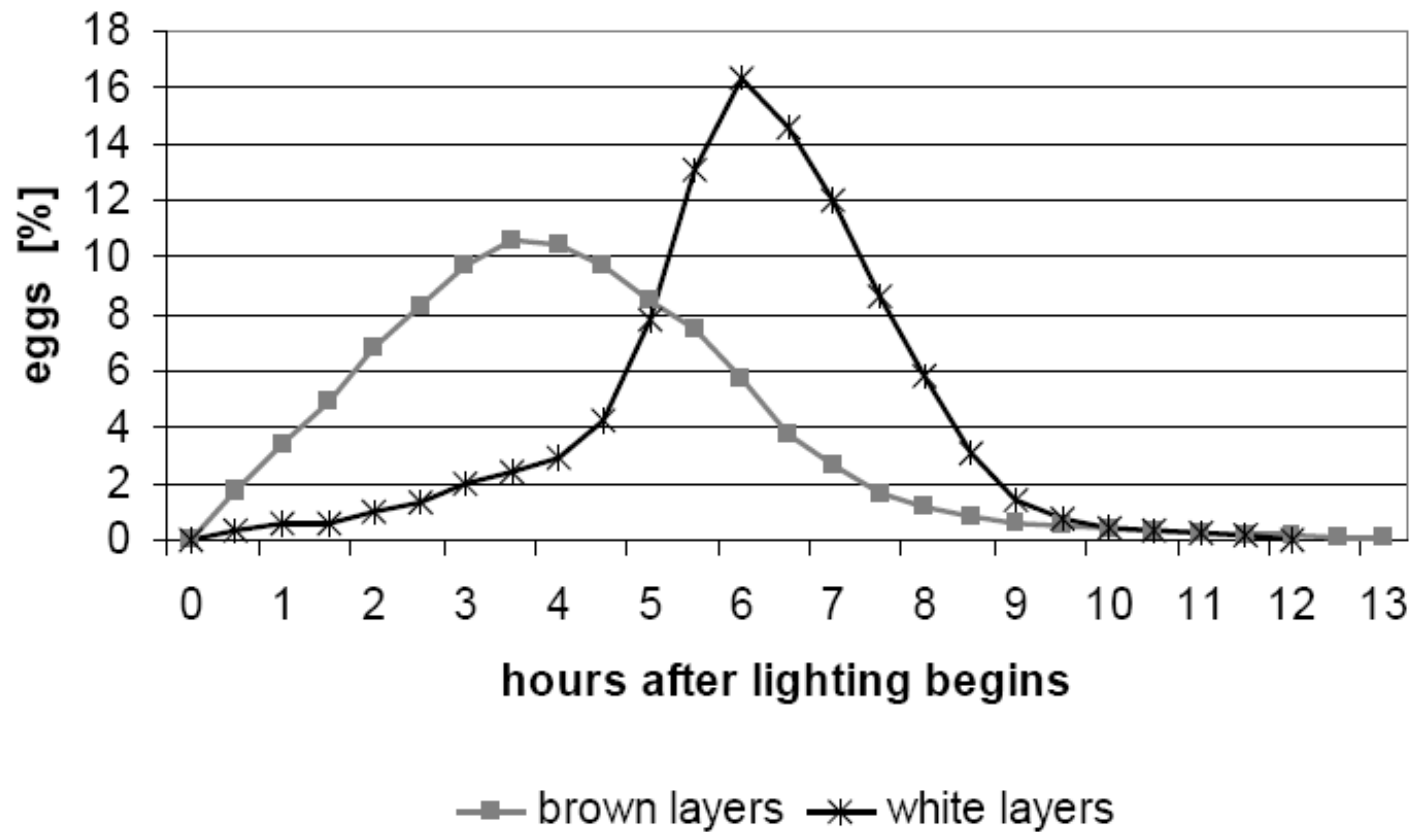
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Nestboxmanagement

# Nestboxmanagement

To remember !!!



# How long do we need to open the nestboxes after piekproduction?

- 1. 16 hours  1
- 2. 24 hours  2
- 3. 10 hours  3

# Nestboxmanagement

- 11-12 hours after light switch on, the most eggs are produced.
- What is happening in the nestboxes in the next 5-6 hours?

- Females are hide for the (Aggressive) Males
- Weak females and males are hide in the nest
- Dirty the nest (feces, feders, broken eggs)

# When do we open de nestboxes?

1. After transfer pullets to production

1

2. After 5 days

2

3. Week before the first egg

3

# Nestboxmanagement

## How to start

- Open the nestboxes a week before the first egg!!!
- Open the nestboxes a few hours before light switch on

# Nestboxmanagement

## After piekproduction

- Close nestboxes for 10-15 Minutes (11-12 hours after switch on the light. (Stimulates the birds to go out and selection)
- Start to close the nestboxes 15 minutes earlier every 1-2 weeks.
- Keep an eye on production, floor and system eggs...



# Nestbox management





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Fertilization

# How many sperms we find in one cc sperm of our breeder males?



# Fertilization

- A rooster has two large testicles within the abdominal cavity on each side of the backbone
- The sperm formation takes about 15 days
- Rooster's semen contains about 5 billion sperm/cc (40x > human)
- A mature rooster forms 35.000 sperms per second

# Fertilization

- Following mating, the sperms enter the hen's oviduct and are stored in the sperm storage glands
- Only the sperms able to swim will enter these storage glands
- Each storage gland stores more than half a million sperms
- The sperms stay alive in these glands up to 3 weeks
- A hen has maximum fertility only 3-4 days after mating
- Sperm travels up the oviduct to join with the egg yolk
- Sperm bind to the perivitelline membrane and makes a hole as it enters the egg yolk
- Only one sperm is needed to fertilize the egg



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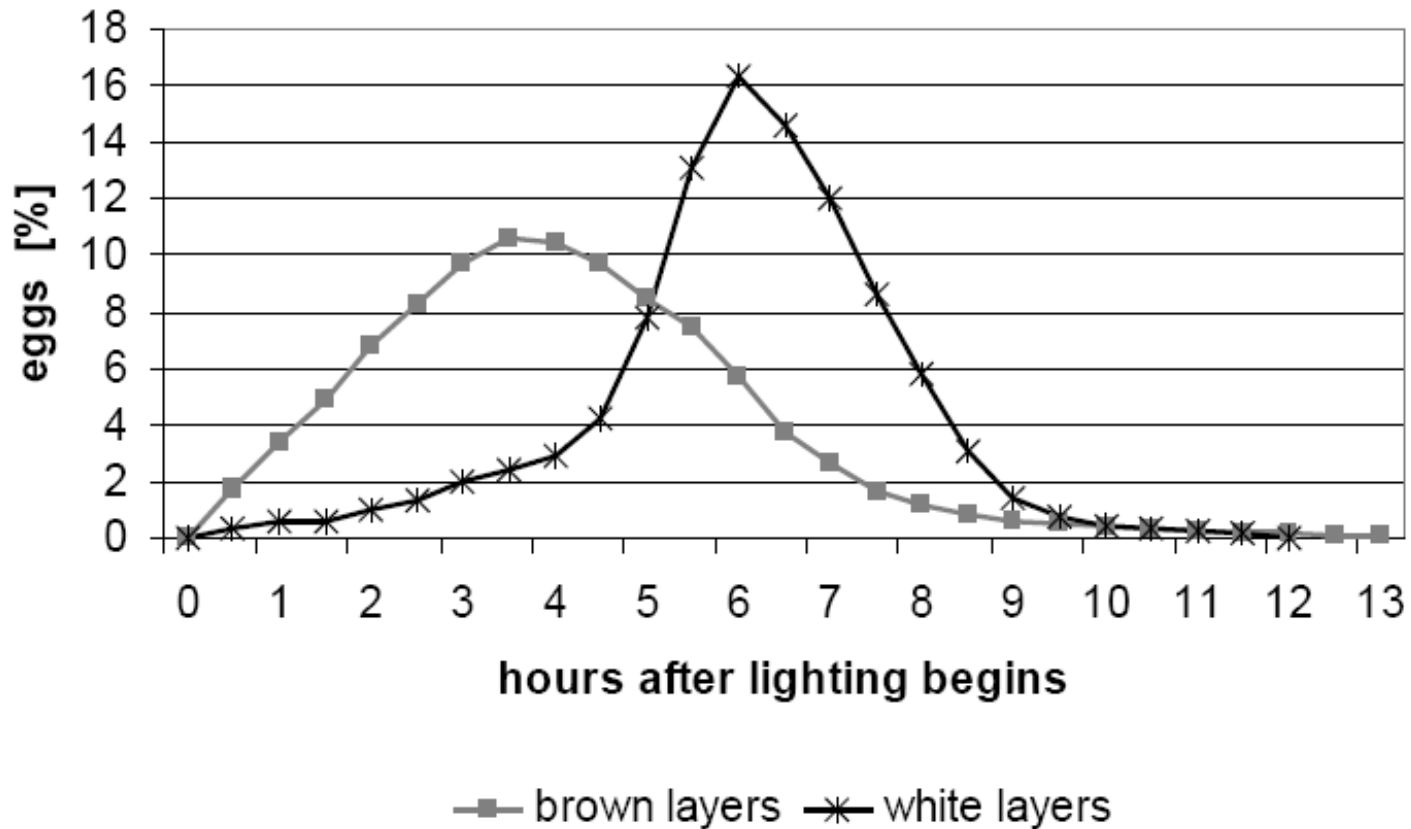
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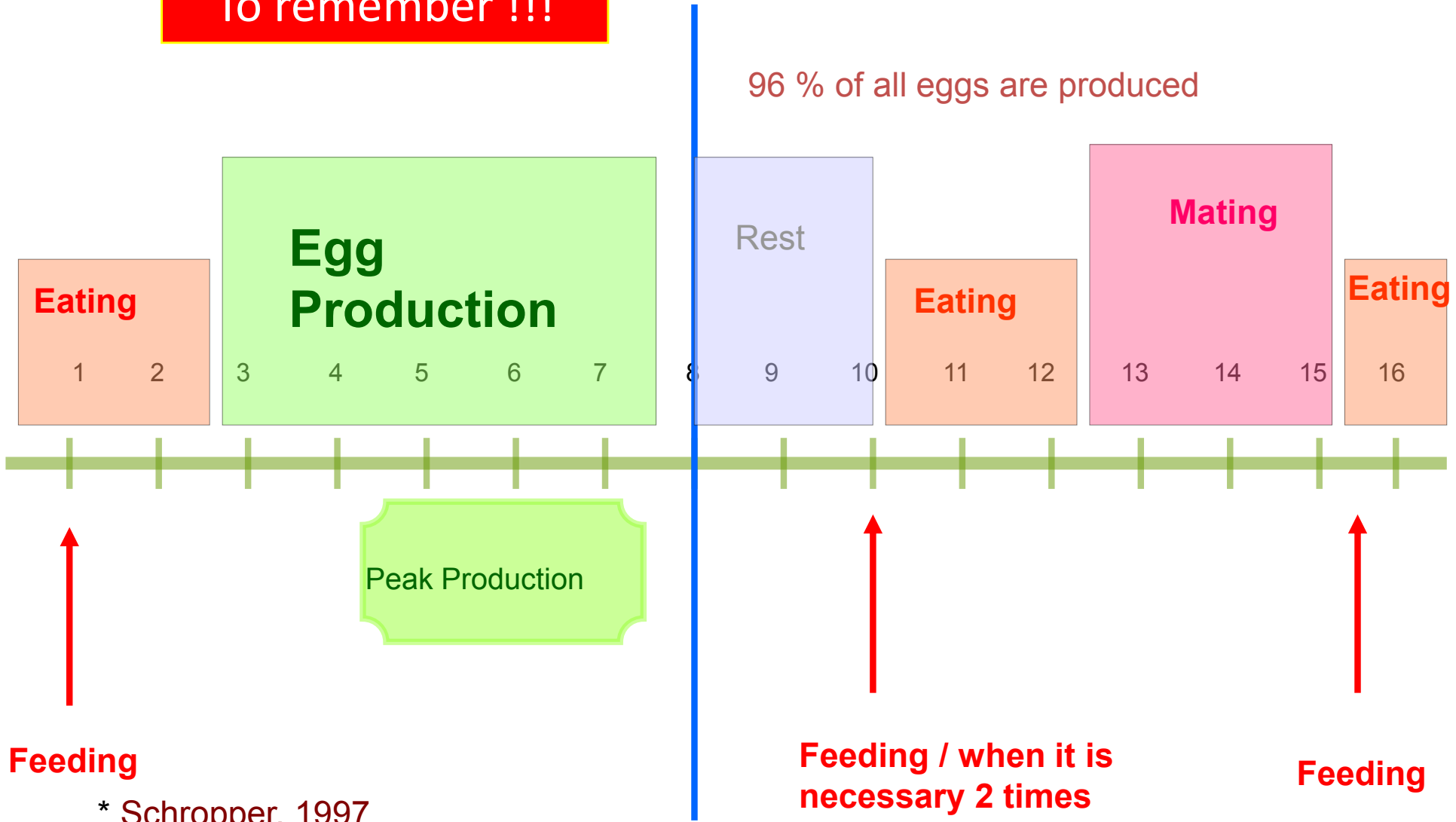
Hatching egg collection

# Hatching egg collection

Comparison of oviposition time in different strains



To remember !!!



Feeding

\* Schropfer, 1997

Feeding / when it is necessary 2 times

Feeding



# Hatching egg collection

- Avoid that hatching eggs stay overnight in the barn/nest
- Do not start hatching egg collection too early
- Preferably collect eggs several times a day
- Hatching eggs should cool down gradually to 16-18°C
- If possible, collect hatching eggs directly on setter trays
- Make sure that all eggs are rolling down to the belt, using colony nests
- Prevent the „upside down“ collection of hatching eggs
- Check the eggtransport in the barn.
- Assure a proper selection during egg collection - this pays off

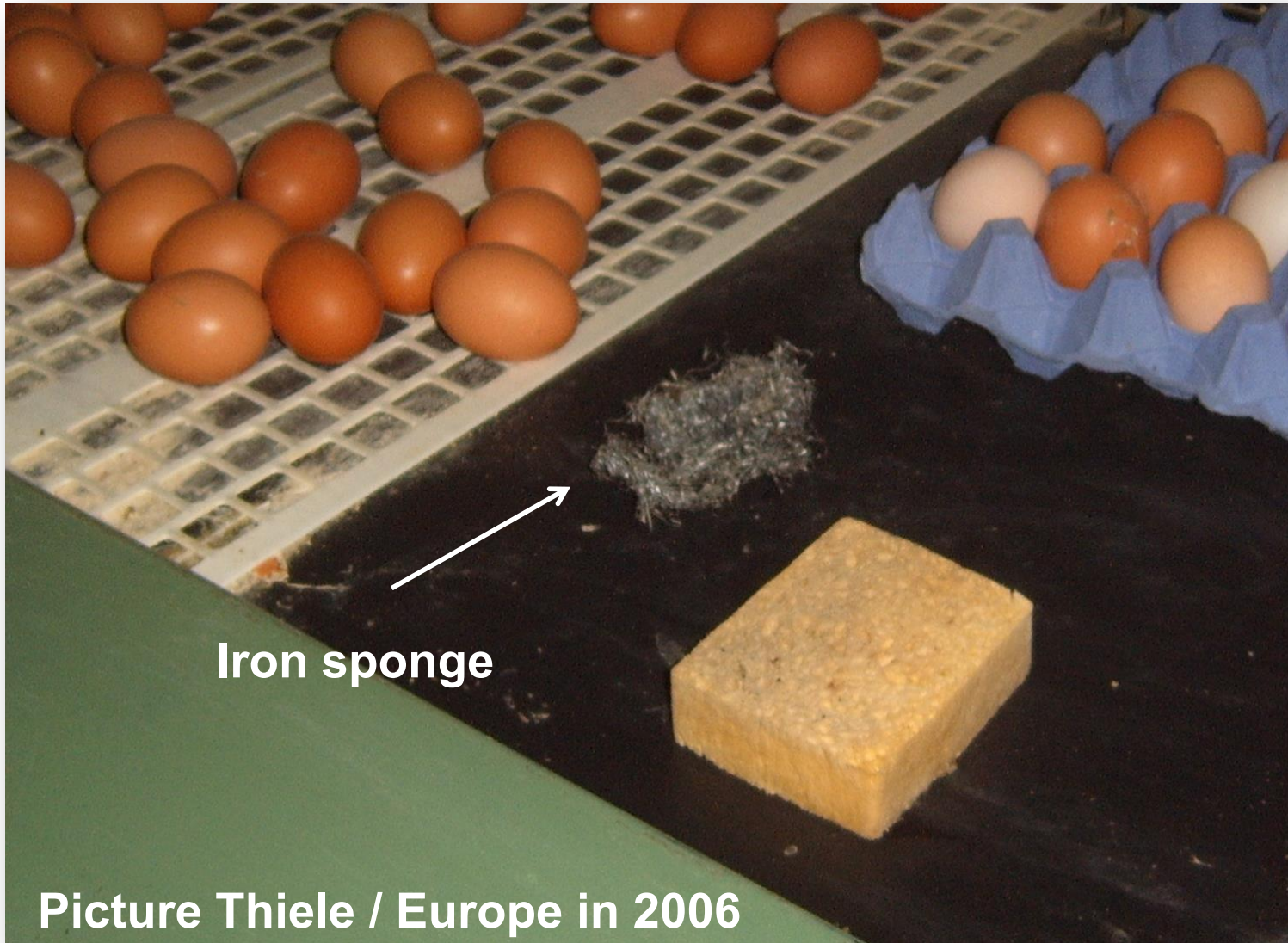
# Hatching egg collection



# How do we clean HE?

1. Iron sponge	1
2. Warm water	2
3. Cold water	3
4. No cleaning	4

# Hatching egg collection



# Hatching egg collection





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Preventing Floor eggs

# Start production – Floor eggs



# Preventing Floor Eggs

- Don't transfer the flock to the laying house before the 17 weeks of age
- Open the nests 1 week before first eggs are laid – females must be kept curious
- Prevent draught in the nests
- Nest, water and feed has to be located in a circle of 3-4 meters
- Nests should be placed in the centre of the house
- Make sure, that drinkers and feed chains are not an invitation to lay eggs underneath them
- Locate drinkers preferably in the front of the nests



# Start production – Floor eggs



# How many layers on 1m2 nestbox?

1. 90	1
2. 100	2
3. 120	3

# Preventing Floor Eggs

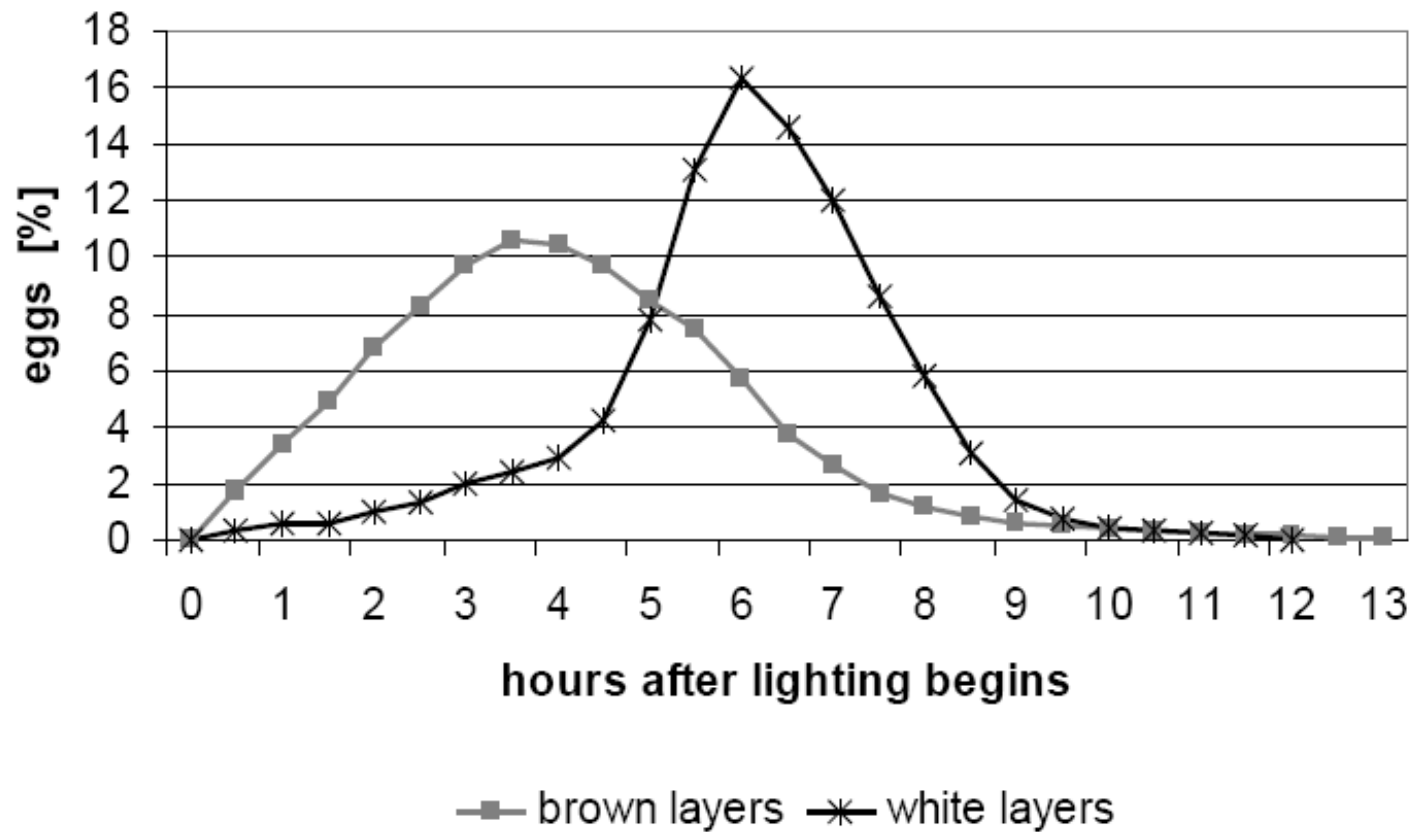
- The birds may be trapped on the slatted area for **the first days** after housing – can this way easier find water, feed and nest
- Birds should be trained to jump, walk and sleep on slats during the rearing period ( start training before the age of 6 weeks)
- Supply sufficient nesting space, means one single nest per 4 females or 1 m<sup>2</sup> nest space for 120 females
- Open the nests a few hours before light is switched on

# Preventing Floor Eggs

- Don't run the feed chain during the time that the eggs are being laid
- Prevent direct light shining into the nests
- Collect floor eggs as soon as possible
- When you find eggs on the slats early in the morning, check your lighting program
- A sudden increased number of floor eggs during the production period can be an indication for lost condition or a disease or red mites / worms
- Make sure, that all birds sleep on the slats from the first day on
- Keep the level of litter low during production

# Preventing Floor Eggs

To remember !!!



# Managing Breeder Flocks

- Stick to your „basics“ first
- Attention to details
- Watch your eggs/chicks carefully (smell, feel, see, hear, taste,...)
- Make notes, keep records, collect information
- Do not believe displays !
- Let the birds talk to you....
- Chicken all over the world speak same language.....CHICKENTALK



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**Thank you for your attention !**