

A large, light blue egg is the central focus, set against a dark blue, starry space background. Several smaller, reflective spheres of various sizes are scattered around the egg. Some of these spheres contain images of white chickens with red combs, while others contain images of white eggs. The overall composition suggests a theme of egg production and management.

Cage-free Production Management for 500 Eggs and More

Seminar Hickman's April 10th, 2026

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Cage-free Management for 500 Eggs and More

Make a plan before the start of production



Cage-free Management for 500 Eggs and More

Make a plan before transfer

Physical stress

- Injury
- Disease
- Environmental
- Performance

Psychological stress

- Fight or flight
- Hierarchy
- Social

Biological stress

- Rest and Digest
- Reproduction
- Circadian Rhythm

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Make a plan before transfer!!

- On what age we transfer the pullets?
- Is the vaccination program ready?
- What type of feed we like to use after transfer the pullets?
- Light stimulation? (Hours, dimming program and light intensity)
- Close the PULLETS inside the system?



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Make a plan before the start of rearing

Determine the strategic road with:

- Pullet grower
- Producer
- Local veterinarian
- Feed supplier
- Other involved parties



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Make a plan before transfer

- When rearing and production is not in Scandinavian, production can't start before 17 weeks of age! **STRESS**
- Transfer before 17 weeks is possible, but be aware that we treat them as pullets! **STRESS**
- NO Transition/Hybrid/Layer feed on early age! **STRESS**
- NO light stimulation in Hours/Intensity before 17 weeks! **STRESS**
- When you need to lock-up the pullets, then not for long! (Max 1 week)
STRESS



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Make a plan before transfer!!

- The body weight of the pullets should have reached the breeder-standard.

Be aware of weight loss due to loading and transport.

- Time settings from the rearing house should be copied to the layer house as accurately as possible.

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Make a plan before transfer!!

❖ Preparing for placement

- *Check setting in the computers if they are O.K.*
- *Is everything checked & tested (especially with first flock)*

❖ Start pre-heating the house on time.

House temperature up to 20°C / 68°F

- *The first 48 – 72 hours after placement, this temperature must be maintained.*
- *The pullets will distribute directly on the way they should!*



CAGE-FREE MANAGEMENT FOR 500 EGGS AND MORE



STOCKING DENSITY IN THE LAYING HOUSE

The birds should have enough space, especially in hot climates!

When pullets are closed inside the aviary system, keep them only closed for a few days!!!! Important is not only 8-9 bird/m²/living space, but even more important that there is enough feed/water/nest box per bird in the house. (a minimal recommendation is given in table 5).

Overstocking has a strong impact on mortality, body weight and uniformity, feathering status and finally eggs laid per hen. In addition, local legislation should be respected.

Table 5: Stocking density at production house

Equipment	Requirements*
Stocking Density	475 – 750 cm ² /hen**
Drinkers	
Round drinkers	1 drinker (Ø 46 cm) for 125 hens
Linear drinkers	1 running meter for 80–100 hens
Nipple drinkers	1 nipple for 8–10 hens (access to 2 nipples/hen)
Feeders	
Round feeder	1 feeder (Ø 40 cm) for 25 hens
Chain feeder	10 – 15 cm / hen
Nest	
Family type nest boxes	120 hens / m ²
Family nest in family cages	50 cm ² /hen (42 to 65 cm ²)
Single nest (26 x 30 cm)	4 to 6 hens per nest

* These recommendations should be adjusted to meet local regulations.

** includes all the available space

**H&N Cage-Free
Management Guide**
<https://hn-int.com/>

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Make a plan before transfer

- ❖ Training wire

Check local regulations

- ❖ Distribution of the birds in the house.

- *Per row*
- *Per compartment*

- ❖ Unload the birds on the system
where feed and water is available

- ❖ Use (clean & low level litter) material on the floor.

Check local regulations



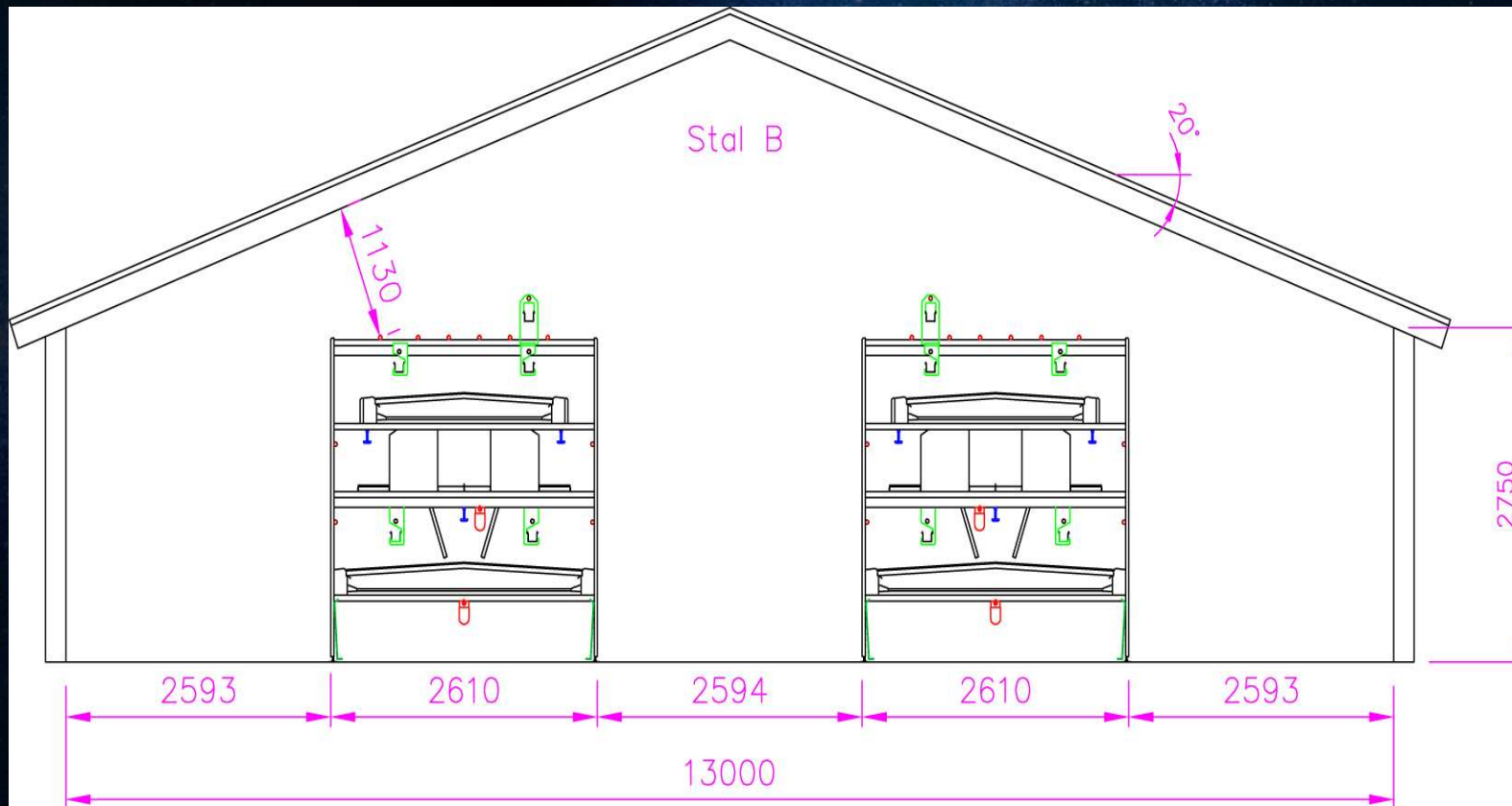
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Keep eyes open!



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Make a plan before transfer!!



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Measure LUX, avoid bright light spots (undesirable behavior) avoid dark spots (floor-eggs) **2-2.5 Ftc**

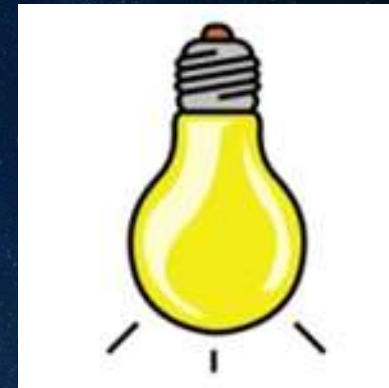
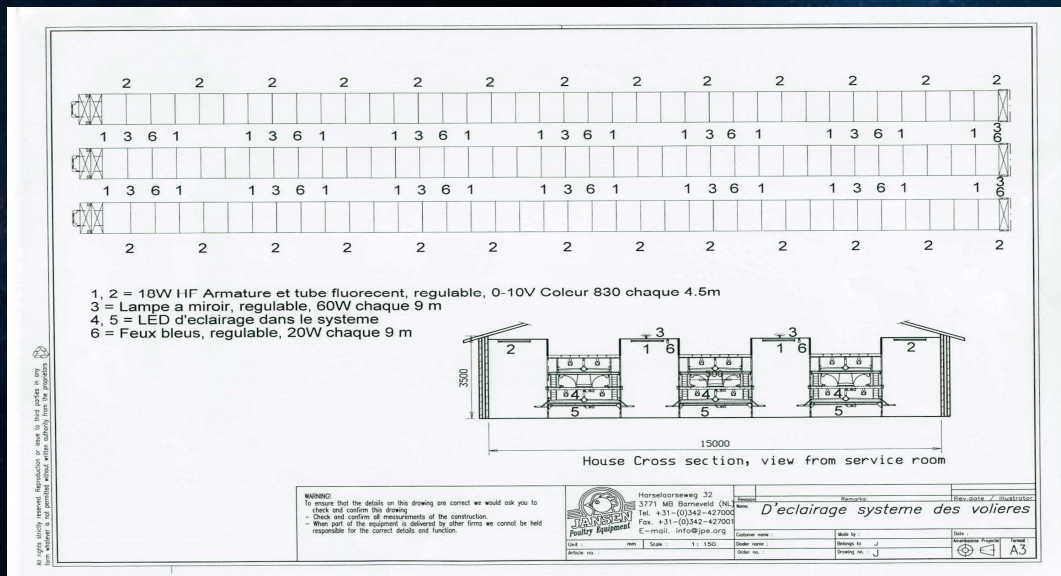


How many LUX?

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The first week!

Copy dimming program from rearing!



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The first week!

- ❖ The birds (if possible) have to be placed and unloaded in the house at noon or early afternoon. (this requires good scheduling)
- ❖ Make sure there are enough people around the first evenings.
- ❖ Every evening, ALL the birds have to be inside the system.



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Clean water

- ❖ Flush drinkers before housing pullets!
- Clean the water system before housing new flock, and on a regulary base during production period.
- Test the water on a regularly basis



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Fresh Feed

- ❖ Correct & Fresh Feed available in the system **before** the birds arrive/housed.
- ❖ Feed level in the trough through the first days. (Feed management)



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To remember!

- In rearing period (age of 3-4 weeks)
- Start to empty the feeders first ones a week. (Keep an eye on behavior of the flock)
- **Continue this during whole rearing and also after transfer to production!**



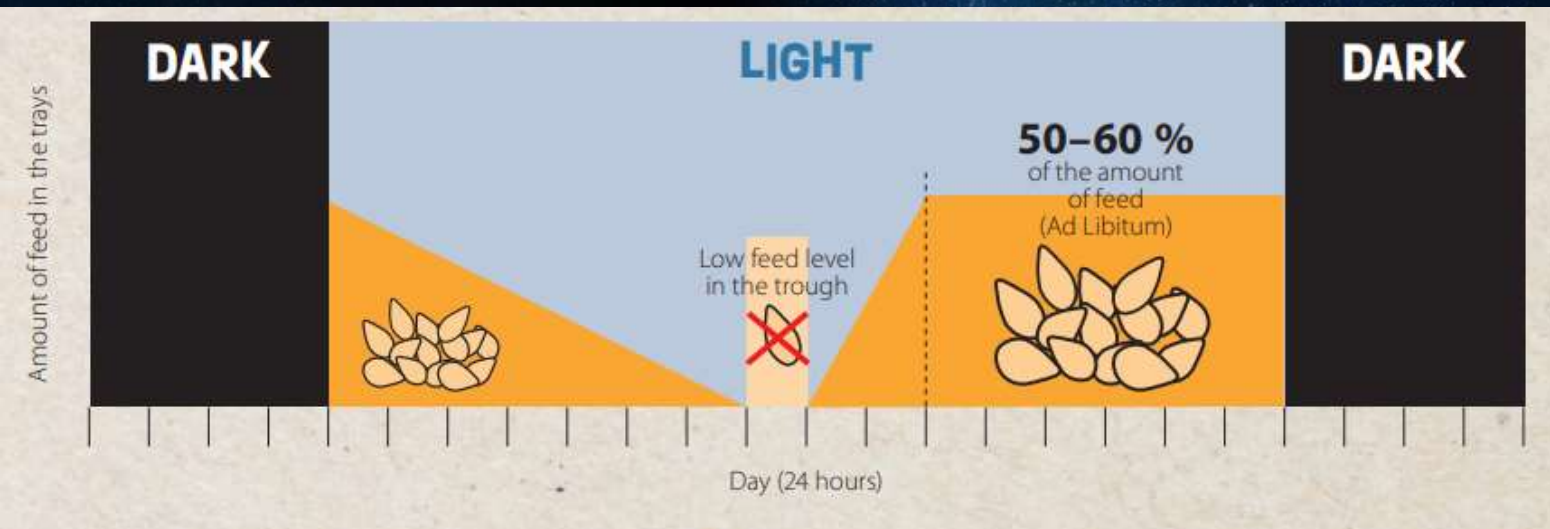
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Feed Management



Do not over-feed!

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This is just an example: in practice, feed distribution will depend on feeder equipment/space/level, but it needs to follow this scheme

Production

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The first week!

❖ Slat ramps – additional perches

For an easier access into the system when the birds have difficulties to enter the system.

.....Even important after a few flocks.....



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And then it goes one!

- ❖ Check if needed to remove birds from the levels without water. Especially brown layers on higher levels without water!
- ❖ Open system underneath a.s.a.p (if present)



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Light stimulation – onset period

Light stimulation on body weight and uniformity

Body weight:

Egg weight profile (KAI)

Uniformity:

<10% birds with body weight 100 gr. below standard (egg weight profile)

First stimulation:

2 hours



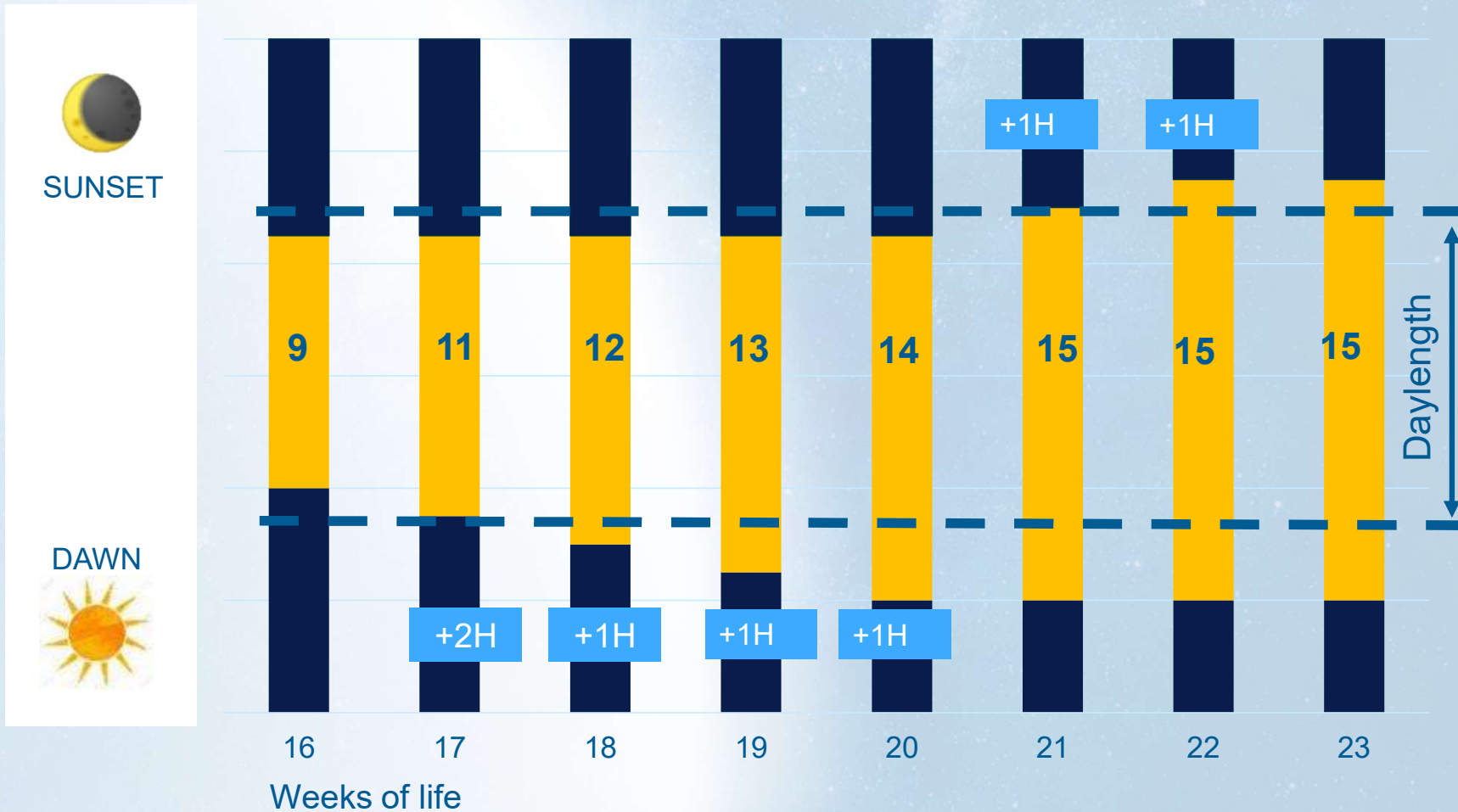
Lighting program

Body Weight and Uniformity for lighting stimulation

Table 1. General correct body weight to start the light stimulation

	Uniformity	Body weight
Brown Nick	>85%	1,450 gram/3.2 pounds
Nick Chick	>85%	1,250 gram/2.75 pounds

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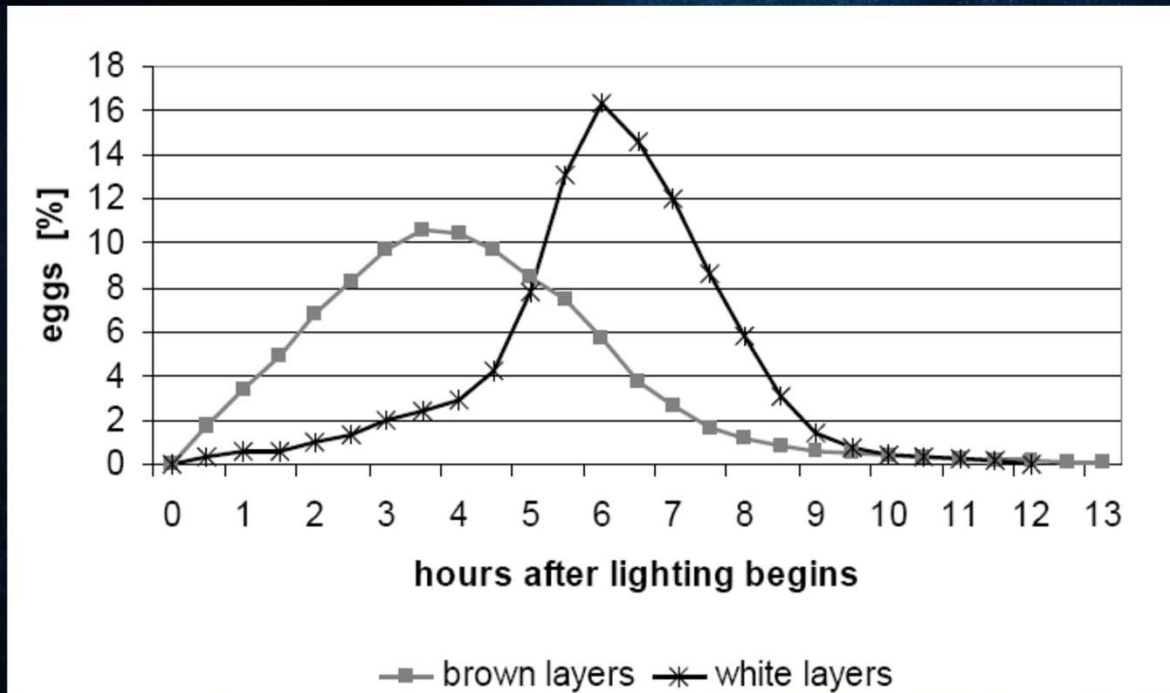
Nestbox Management

- ❖ Keep nestboxes closed during housing of the pullets
- ❖ Open the nestboxes few hours in the morning before onset production
- ❖ Open the nestboxes a few hours before start of daylight.
(When something is not working, you have some time to fix before start of production.)

Be there at start of production a few times a week, when lightperiod starts!

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To remember !!!



Cage-free Management for 500 Eggs and More

To remember !!!



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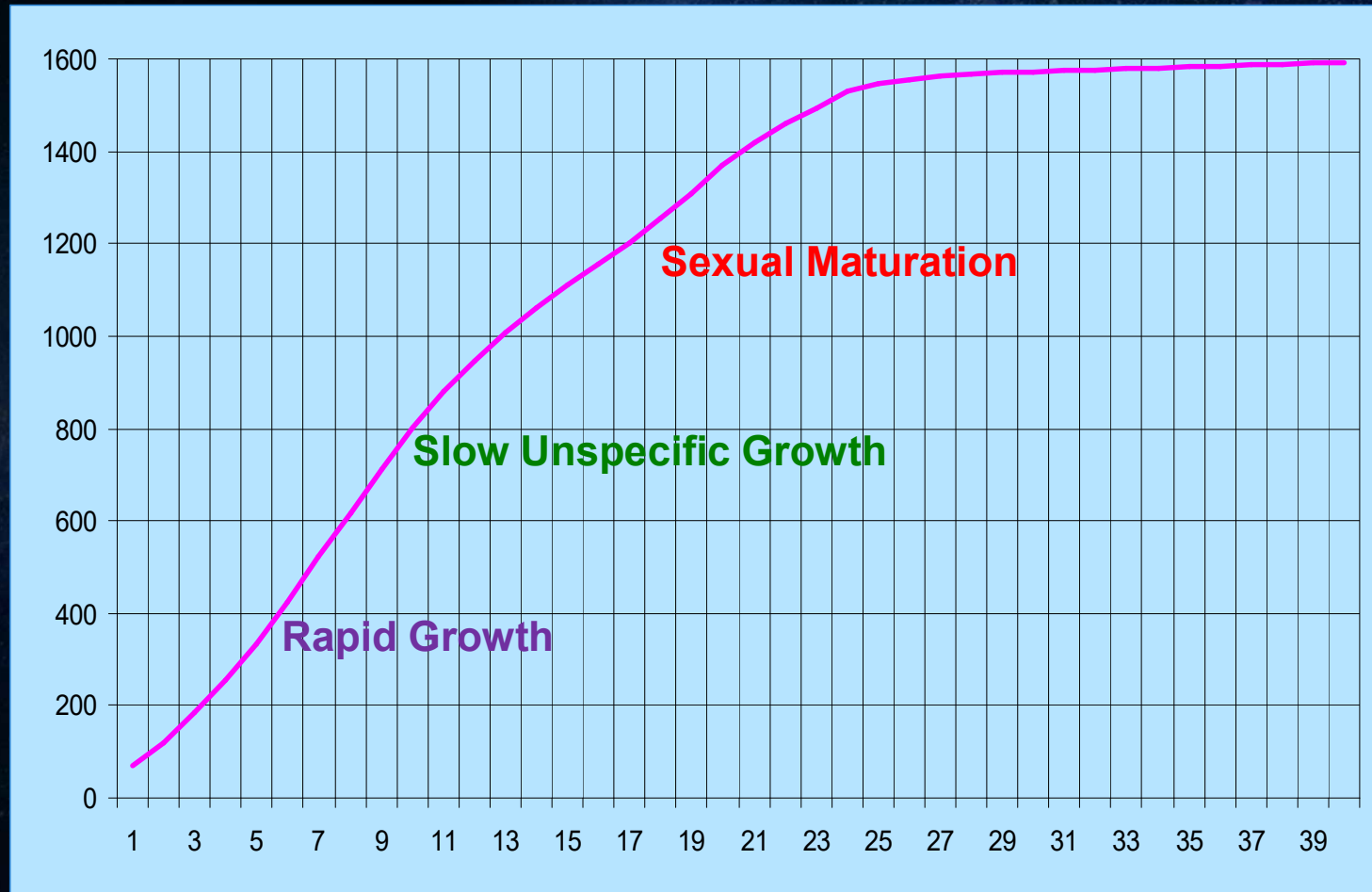
Alfalfa/Luzerne

- ❖ We don't use alfalfa to feed our birds!
- ❖ We use alfalfa to see if everything is in good balance!
- ❖ **When birds don't take alfalfa, they are in good balance.**
- ❖ Advisable to use it during most stressfull period (17 to 30 weeks)



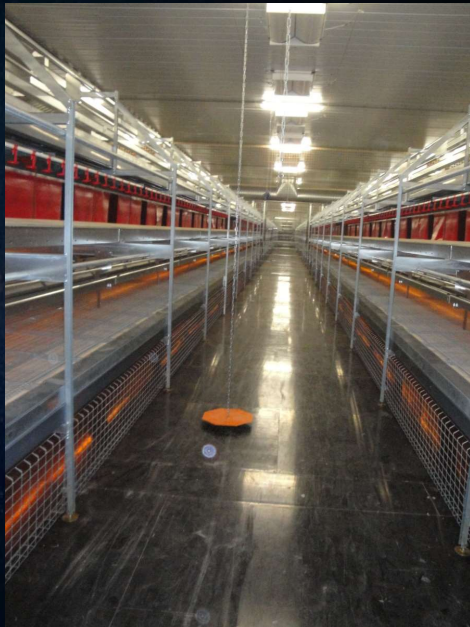
Source: J. Terhorst

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Check body weight weekly!



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Light intensity after peak production!

- ❖ Start to reduce Ftc after peak-production.
- ❖ We can reduce light intensity with little steps every week.
(0.10 Ftc weekly)
- ❖ Start to switch off light (different levels) after laying period in second part off the day. (Aviary systems...)



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Wrong use of the nestboxes!

- ❖ *To hide (selection non productive layers)*
- ❖ *To rest, and produce manure (Dirty eggs)*

How can we prevent this wrong use?



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Wrong use of the nestboxes!

- ❖ Close the nestboxes for a short time in the afternoon, and stimulate the birds to go out.
(Use that time to look for non-productive birds!)
- ❖ Start to close the nestboxes (after peak production) earlier at the end of the day. (Small steps!!!!)
Numbers off floor/system Eggs should not increase!

How to Check Correct Feed/Management

5 step check

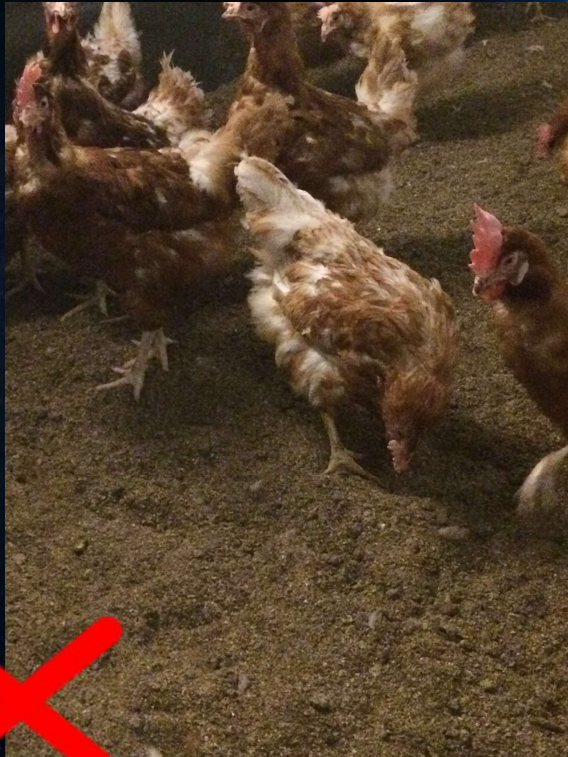
- Body weight
- Litter
- Plumage
- Section
- Behavior



How to Check Correct Feed/Management

Litter

On the
litter



How to Check Correct Feed/Management

Plumage

On the
Bird



How to Check Correct Feed/Management

Section

Inside the Bird



How to Check Correct Feed/Management

Behavior!

Behavior



Further.....

Samples

- ❖ Take (& store) feed samples on a regularly basis
(if necessary, investigate them.)

- ❖ Blood samples
 - *At arrival of the birds, and if necessary (IB – pressure for example), on a regularly basis.*
 - *Store them in an orderly manner and investigate them when requested.*

Further.....

Litter Management

- *Prevention for floor eggs!*
- *Especially white, but also brown layers*
- *Better climate (Ammonia)*



Further.....

Litter Management



Take home message!

Please be excellent because.....

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!!!

Thank you for your attention



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