



INTERNATIONAL

*The key to your profit!*



# Production Layers 17-100 weeks

Leon Schouren

Global technical service

[schouren@hn-int.com](mailto:schouren@hn-int.com)

# Influences on Layer behavior



# Important for housing pullets:

- ***Cleanness***

- ***Rest***

- ***Regularity***



# What is the best age to transfer pullets to production?

1. 17 weeks	1
2. 16 weeks	2
3. 18 weeks	3

# Transfer to the Layer House

## *know what birds you get!*

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

# Preparing

- A through cleaning of the house and everything what belongs to it
- Don't forget the feed- and watersystem!
  - *Feederbins (augers, air-exhaust, batch-weigher)*
  - *Manure storage & Manure drying accessories (airmixer / heatexchanger, airtubes) but also air-inlets and airpressure hoot*
  - *Manure-conveyor channel and egg collection room*
- Make sure the house will be disinfected in time.
  - *Be carefull with residues – remains of the disinfectant*

# Preparing



# Preparing

- The body weight of the pullets should have reached the breeder-standard.
  - *Be aware of weight loss due to loading and transport.*



# Preparing

- New poultryfarmers -> Practical training
- Discuss before the birds will be placed, settings of:
  - *Lights*
  - *Feed*
  - *Water*
- Determine the strategic road with:
  - *Advisors from hatchery, feedsuppliers, Veterinarian and/ or other involved parties*

# What is the best temperature to received pullets in production?

1. 18° C

1

2. 20° C

2

3. 22° C

3

# Preparing

- Preparing for placement pullets
  - *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. Also the equipment has to get on temperature.
  - *House temperature up to 22°C.*
  - *The first 48 – 72 hours after placement, this temperature must be maintained.*



# Preparing



# Pre-Heating and Red Mite treatment!!



# Preparing



# What doesn't work...



# Water quality





# Water quality

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

# Feed structure

Does it work in commercial layer farms

long feed chains &  
high stocking densities ?

# Feed structure



- I don't like hard pallets ...
- I don't like hard and scharp granulate
- I don't like fine powder mashfeed
- I like courser **homogeneous mashfeed**



# Feed structure



# Feeding on empty troughs

Run feeders once at start of the day, or no feeding in the morning!

- Last feeding ½ hour before light switch off in evening
- Let birds empty the troughs during the morning
- After empty the feederline, start DIRECT with blockfeeding
- Higher speed feedchain is better
- Make sure that the feedchain is not running empty

## Why

- Prevent selective feedintake
- Clean eggs
- Better feedintake during summertime (hot climates)

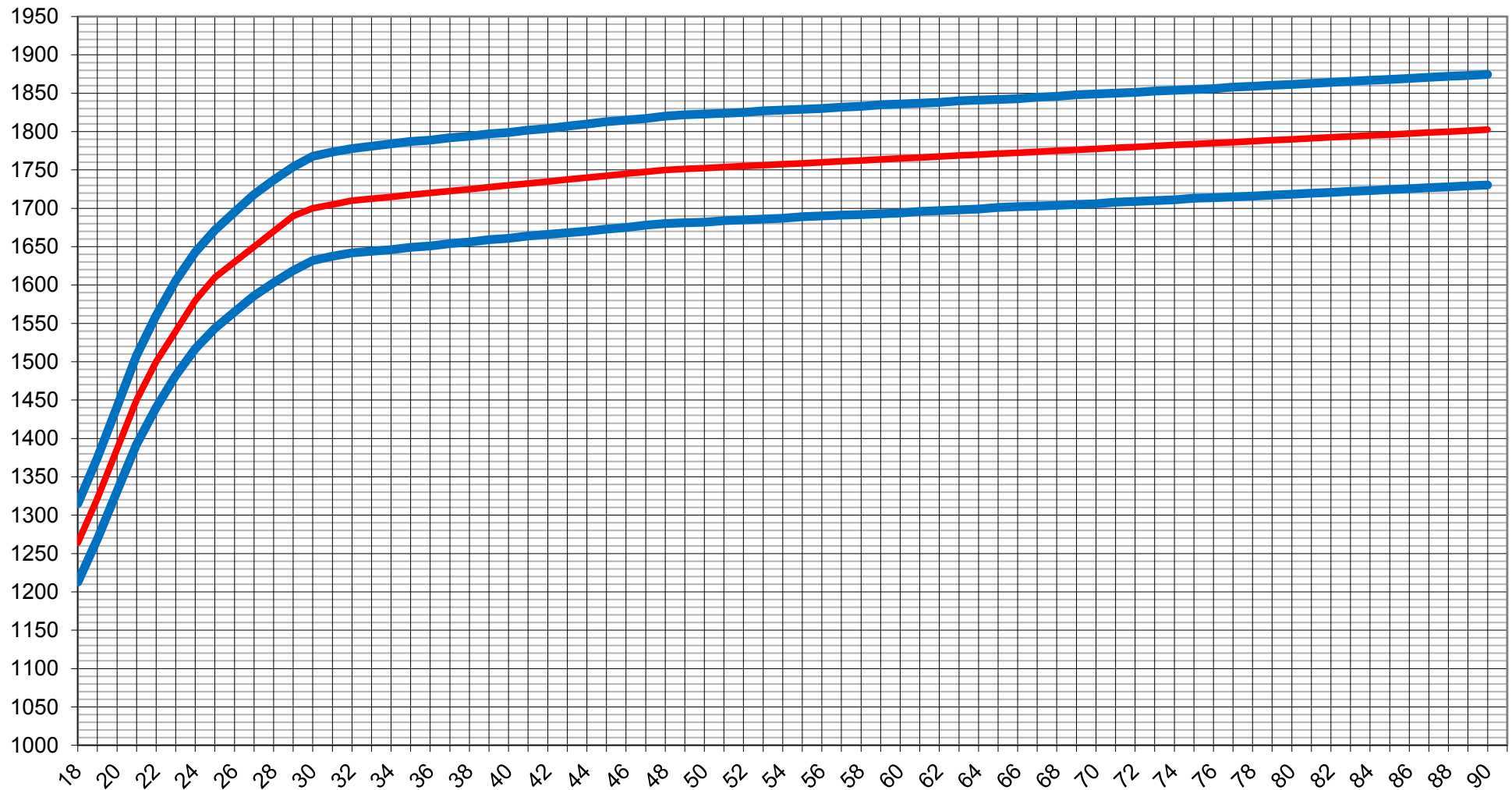
# Feeding on empty troughs



# Further.. Bodyweights



# Further.. Bodyweights

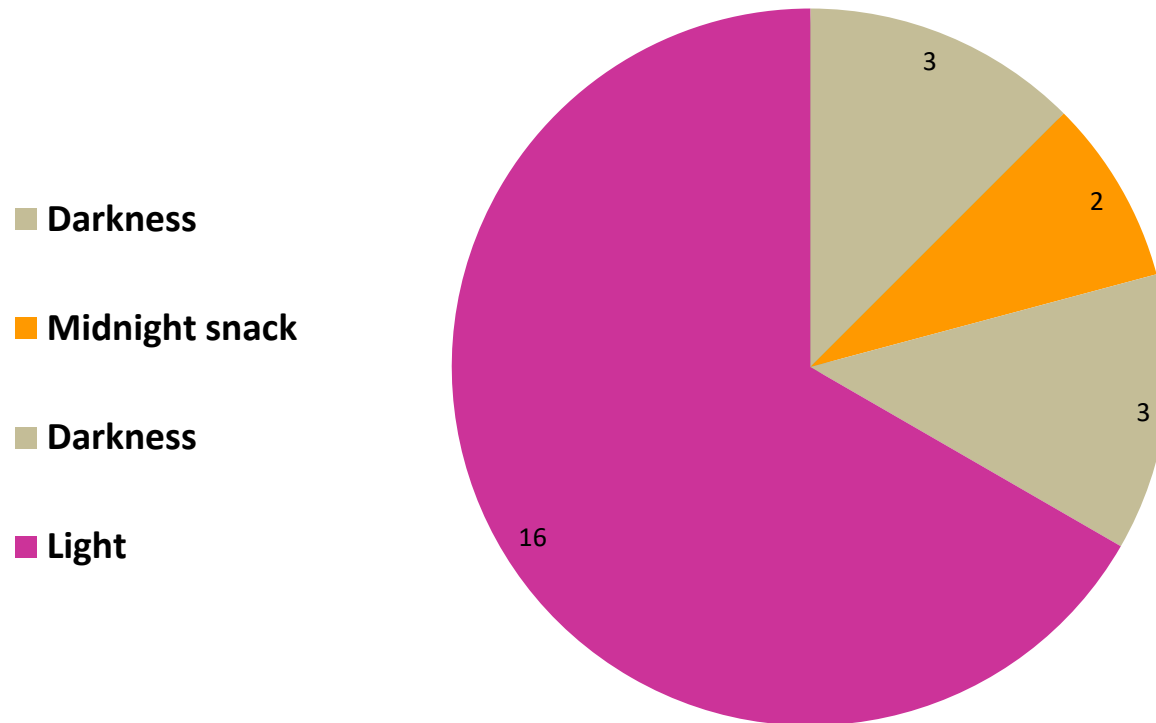




# Midnight lighting & feeding (midnight snack)

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

# Midnight lighting & feeding (midnight snack)



# Preparing

- Light influence from outside.
  - *For pullet **AND** layer houses!*

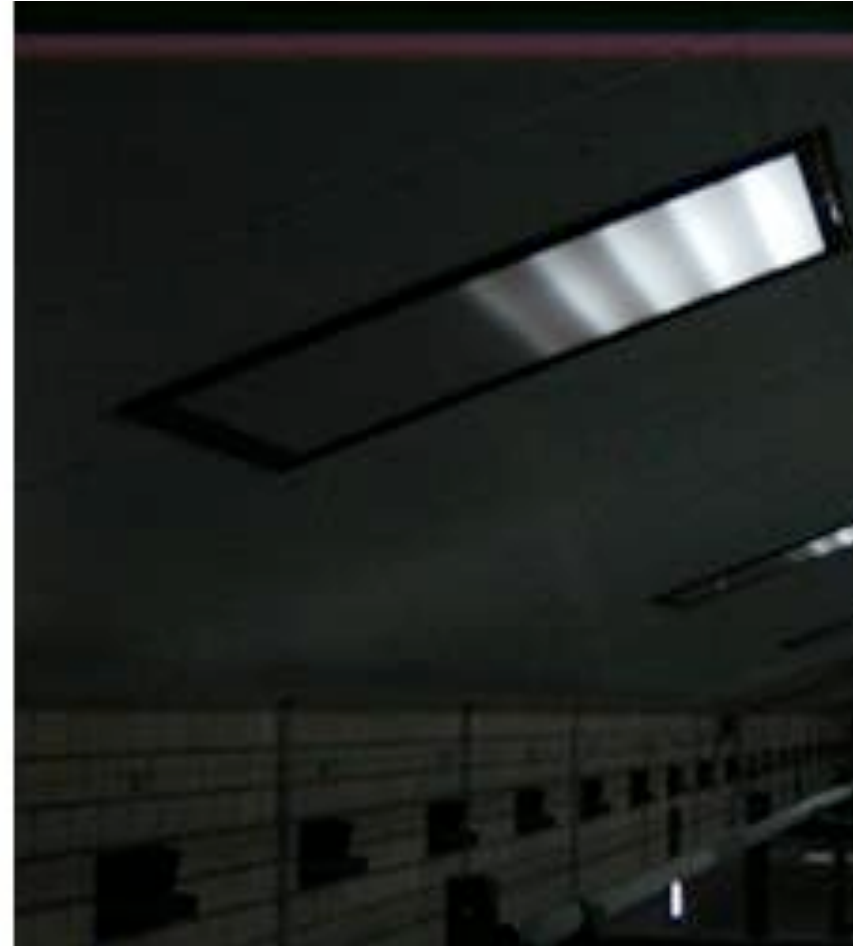
# Preparing



# Preparing



# Preparing



# Transfer of the pullets



alamy stock photo

B47DMA  
www.alamy.com

# Remember transfer is a stressful time – reducing stress is a priority

## Physical stress

- Injury
- Disease
- Environmental
- Performance

## Psychological stress

- Fight or flight
- Hierarchy
- Social

## Biological stress

- Rest and Digest
- Reproduction
- Circadian Rhythm



# Don't overfeed!!!!



- Start weighing birds within two days of housing
- Monitor Growth rate and uniformity
- Ensure you are using the correct feed
- No increases in light until ready to go!!

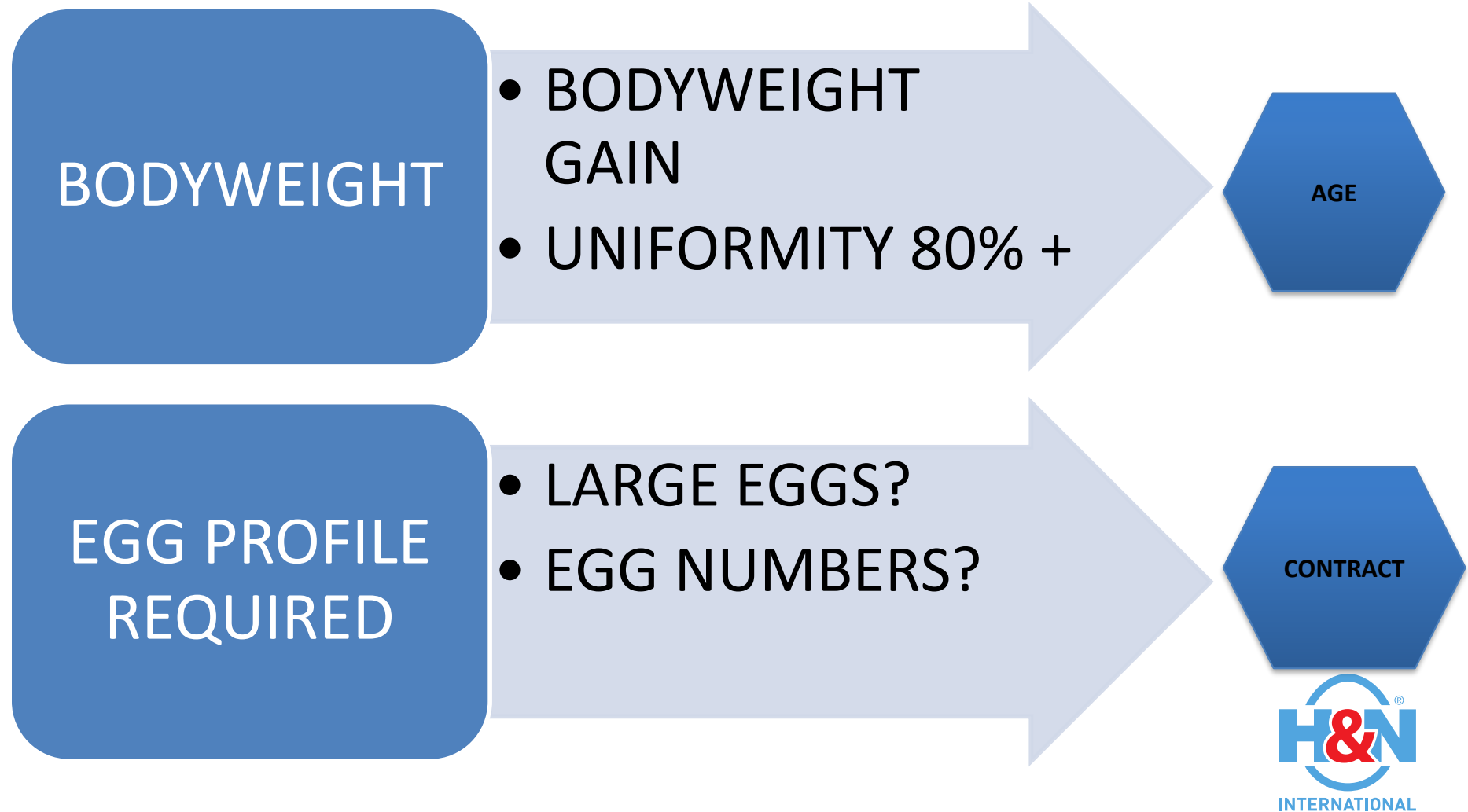
# MAKE A PROGRAM OF MONITORING MARKERS

- BODYWEIGHTS & UNIFORMITY
- TEMPERATURE
- WATER & FEED CONSUMPTION
- CROP FILL (NOT JUST FOR REARING)
- FEED TRACKS AND TIMES
- PRODUCTION

# Stocking density (Laying Period)

- Over stocking density (with not enough Feeding / watering equipments and spaces) causing :
  - variation in sizes (bad uniformity)
  - lower body weight than standard
  - Lower production
  - Higher mortality

# WHEN TO STIMULATE?



# Why reduce light (LUX) after piekproduction?

1. To save electricity

1

2. To prevent pecking

2

3. To save feed

3

# Light (LUX)

- After reaching peak production (30/33 weeks) we can **slowly** start to reduce light intensity
- This to prevent bad behaviour (Pecking)

# Light (LUX)

When you reduce LUX to Fast!

- Drop of water/feed intake
- Drop off eggproduction (Molting!!)
- More system/floor eggs. (Cage-Free)

# On what age we start to give extra course calsium on top?

1.40 weeks

1

2.50 weeks

2

3.60 weeks

3



# Feed - Calcium

- Extra Calcium – from +/- 40 weeks onwards
  - *Depending on the egg quality*
  - *In stead of moving to an other phase*
  - *On the demand of the birds*
  - *Increasing step by step, when required*
  - *Preventive, not curative*
  - *Several technical solutions possible....*

# Feed - Calcium



# Feed - Calcium



# Feed - Calcium



# Climat

- The right „micro climate“ , climate around the chicken
- Good air quality, minimal requirements
- For the ventilation is the keyword „underpressure“

The air quality should meet the following minimum requirements:

**Table 2: Minimum Air Quality Requirements**

O <sub>2</sub>	over	20%
CO <sub>2</sub>	under	0.3%
CO	under	40ppm
NH <sub>3</sub>	under	20ppm
H <sub>2</sub> S	under	5ppm

# Know your ventilation system!

## *Good Ventilation!*



# Know your ventilation system!

## *Airstream tracing by smoke tubes*



# Climate

- Prevent unwanted disturbing airflow
- Close openings which are causing draught.



# Climate



# How many cools 0.50 M/sec airspeed?

1.0,5

1

2.1,7

2

3.3,4

3

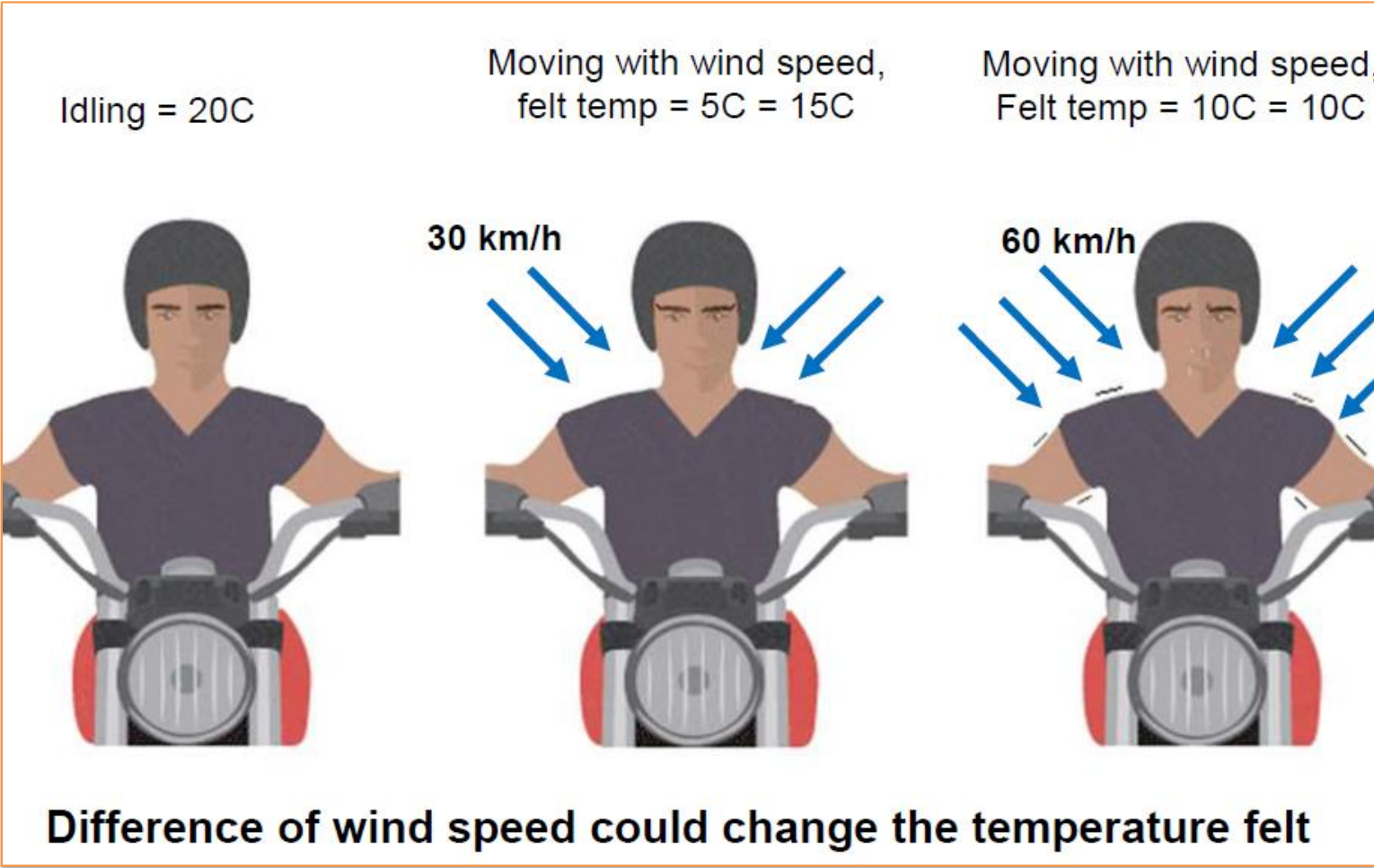
# Airspeed and cooling effect

<b>Air speed(m/sec)</b>	<b>Cooling effect(°C)</b>
<b>0.10</b>	<b>0.0</b>
<b>0.25</b>	<b>0.5</b>
<b>0.50</b>	<b>1.7</b>
<b>1.25</b>	<b>3.4</b>

**Source : Mack O. North**

# Climate Control and Air Flow

*feeling temperature*



# Climate control in hot areas

## Fogging

Use fogging for temperatures above 30C,  
Adjust fogging cycles for the desired humidity  
(for example 12 seconds every 1 minute  
makes 50% RV)

Temperature decrease of 2-3 degrees



## Further..

- Take (& store) feed samples on a regularly base
  - *And if necessary, investigate them.*
- Blood samples
  - *At arrival of the birds, and if necessary (IB – pressure for example), on a regularly base*
  - *Store them in an ordered manner and investigate them when requested*
- Bodyweight development – increasing

# Red-Mite control

- Risks of mites:
  - *E-coli*
  - *Salmonella*
  - *Post-peak production droppings*
  - *Increase mortality*
  - *Egg quality problems*
  - *Floor eggs*
  - ...
  
- That's why you have to beat the (red-)mites!

# 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????



# Thank you for your attention!

