

Hatchery Talks

Pasgar@score



Chick quality

- **What is chick quality?**
- **Quality = the set of properties of an object or a being; a positive or negative distinguishing feature**



Pasgar©score

Chick quality



Chick quality

- **Quality is subjective**
-> **different opinions between people**
- **Objective method needed with factual information**
- **Quality of one chick or all chicks?**



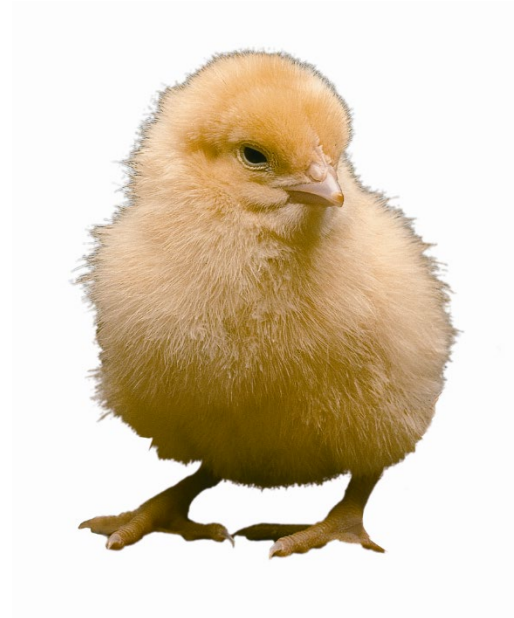
Chick quality

- **What do you want to evaluate?**
 - Quality of chicks **before** selection
 - Quality of chicks **after** selection
- **Random selection of chicks**
- **How big should a sample be?**



Chick quality

- **Multiple ways to measure chick quality**
 - Visual check
 - Uniformity of body weight
 - Yolk free body mass
 - Chick length
 - Tona score
 - **Pasgar©score**



Pasgar©score

Chick quality

Pasgar score:

- 1. Reflex**
- 2. Navel**
- 3. Legs**
- 4. Beak**
- 5. Belly**



Chick quality

- **Top quality chick = 10**
- **For each assessment the chick scores a 0 or 1**
- **For each fault, we **subtract** 1 point from the 10**
- **Maximum score is 10**
- **Minimum score is 5**



Pasgar©score

Pasgar©score

Allows to:

- **Express the quality in a number**
- **Highlight the frequency of „problems“**
- **Suggest the possible reasons**
- **Plan necessary solutions**
- **Follow the dynamic changes of the quality**



Pas Reform Reflex



Reflex

Reflex = vitality

We want to see the chick turn over immediately

**The chick scores a 1 point for reflex
if it takes longer (2s)**



Reflex

Possible causes

- **High temperature in the hatcher**
- **Chilled or cooled down while waiting for processing**
- **Insufficient ventilation / high CO₂**



Pas Reform

Navel



Navel

We want to see clean, closed and dry navels

- **Look and feel** (down can cover the navel)

The chick scores 1 point for navel when we see:

- **Small scab of dried blood**
- **String of dried yolk sac**
- **Leaky navel**
- **Yolk sac outside abdominal cavity**



Pasgar©score

Navel



Navel

Possible causes

- **Too high temperatures at end of incubation**
- **Too low egg weight loss**



Pas Reform Legs



Legs

We want to see good, strong, and evenly colored legs

The chick scores 1 point for legs when we see:

- Red hocks
- Swollen legs



Legs

Possible causes

- **Too high temperatures at the end of the setter period**
- **Trouble hatching, might be due to big belly**
- **Injury**



Pas Reform Beak



Beak

We want to see clean, normal colored nostrils, beak and comb.

The chick scores 1 point for beak when we see:

- Blood
- Red dot on top of beak
- Dirty nostrils
- Dirty beak



Pasgar©score

Beak

Possible causes

- Injury or not?
- Overheating



Pas Reform Belly



Belly

- **We want the belly to feel soft, smooth and supple.**
- **Difficult to see, so feel!**

The chick scores 1 point for beak when we feel:

- **Hard belly**
- **Tense skin**



Belly

Possible causes

- **Insufficient weight loss**
- **Too high temperatures in the setter**



Pas Reform

Recording form



Recording form



Chick no.	Reflex	Navel	Legs	Beak	Belly	Pasgar©score
1	0	1	0	0	0	9
2	0	0	0	0	0	10
3	0	0	0	0	0	10
4	0	0	0	0	0	10
5	0	0	1	0	1	8
Total						9,4

Recording form

- **Regular checks (hatchery specific reference)**
- **Compare to other similar flocks**
- **Aim for high Pasgar scores**
- **Make the Pasgar score a standard operations procedure**



Pas Reform

Case study



Case study

- **Problem: low hatchability and poor chick quality**
- **More information is needed!**
- **Steps to take:**
 - Description of the problem
 - Get specific information with Pasgar©score
 - Conclusion and advise
 - Follow up and evaluate



Case study

Description of the problem + specific information

Pasgars©core = 8.7 ;

- 30 % chicks have thick belly
- 14 % chicks have red hocks

Before or after advice	Hatch.% of `eggs set - clears`	Unhatched eggs per 150 eggs set	Died at 10-18 days (%)	Died at internal pipping (%)	Died at external pipping (%)
Before	86.5	17 (= 11.3%)	7.1	1.5	2.7
After					



Case study

- **Thick belly - Suspect high humidity or low temperature during first part of incubation**
- **Red hocks - Suspect high temperature at end incubation**

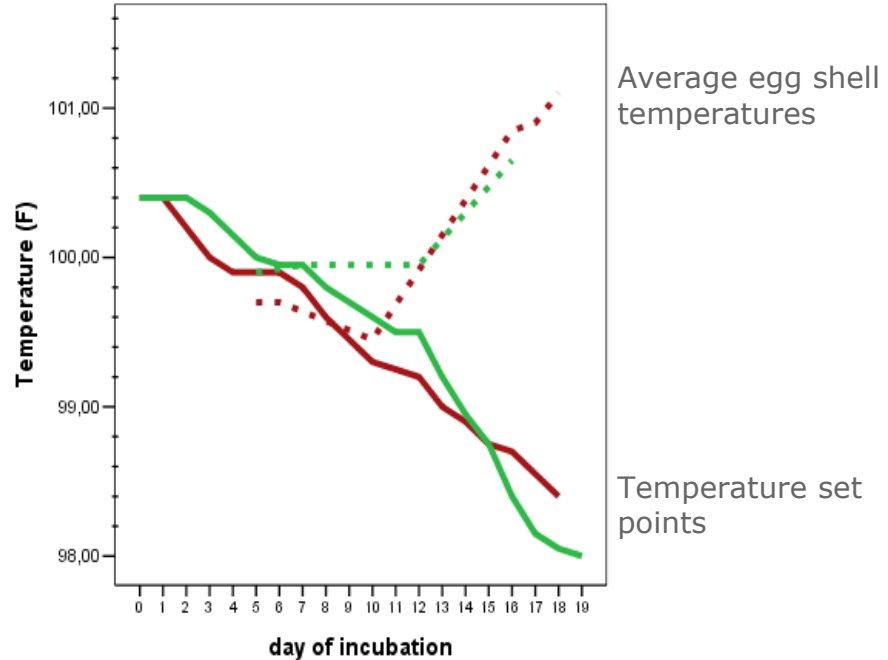
**This is just a suspicion;
needs to be confirmed !**



Case study

Conclusion and Advice:

Increase temperature setpoints during first 13 days of incubation



Case study

Follow up and evaluate

Pasgar©score = 8.7 → 9.2 ;

- 30 % → 7 % chicks have thick belly
- 14 % → 5 % chicks has red hocks

Before or after advice	Hatch.% of `eggs set - clears`	Unhatched eggs per 150 eggs set	Died at 10-18 days (%)	Died at internal pipping (%)	Died at external pipping (%)
Before	86.5	17 (= 11.3%)	7.1	1.5	2.7
After	92.6	8 (=5.3%)	3.9	0.4	1.9



Hatchery Talks

Summary



Thanks for watching!

- **Webinar-replay + hand-out**
- **Knowledge section at our website**

See you at our next webinar

