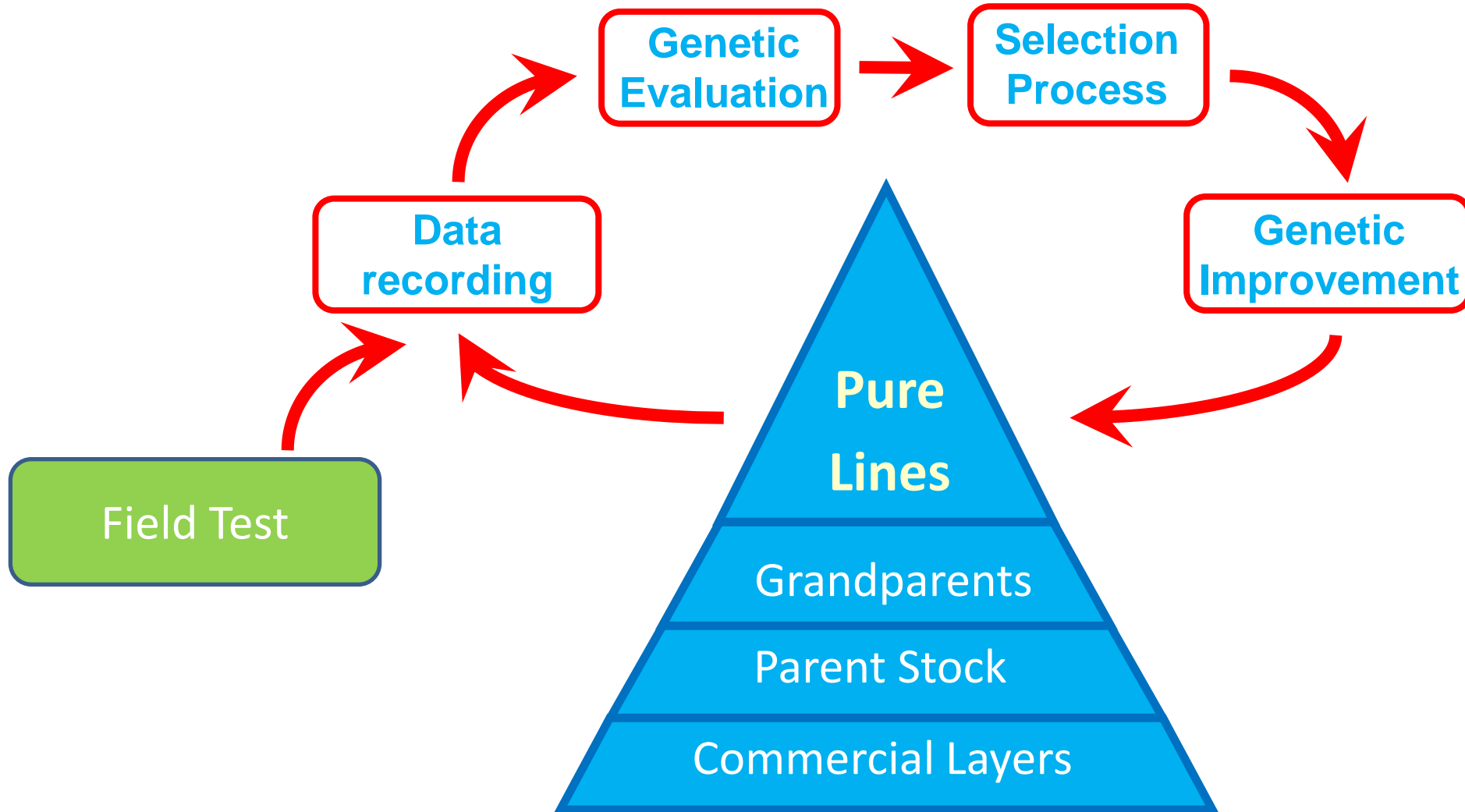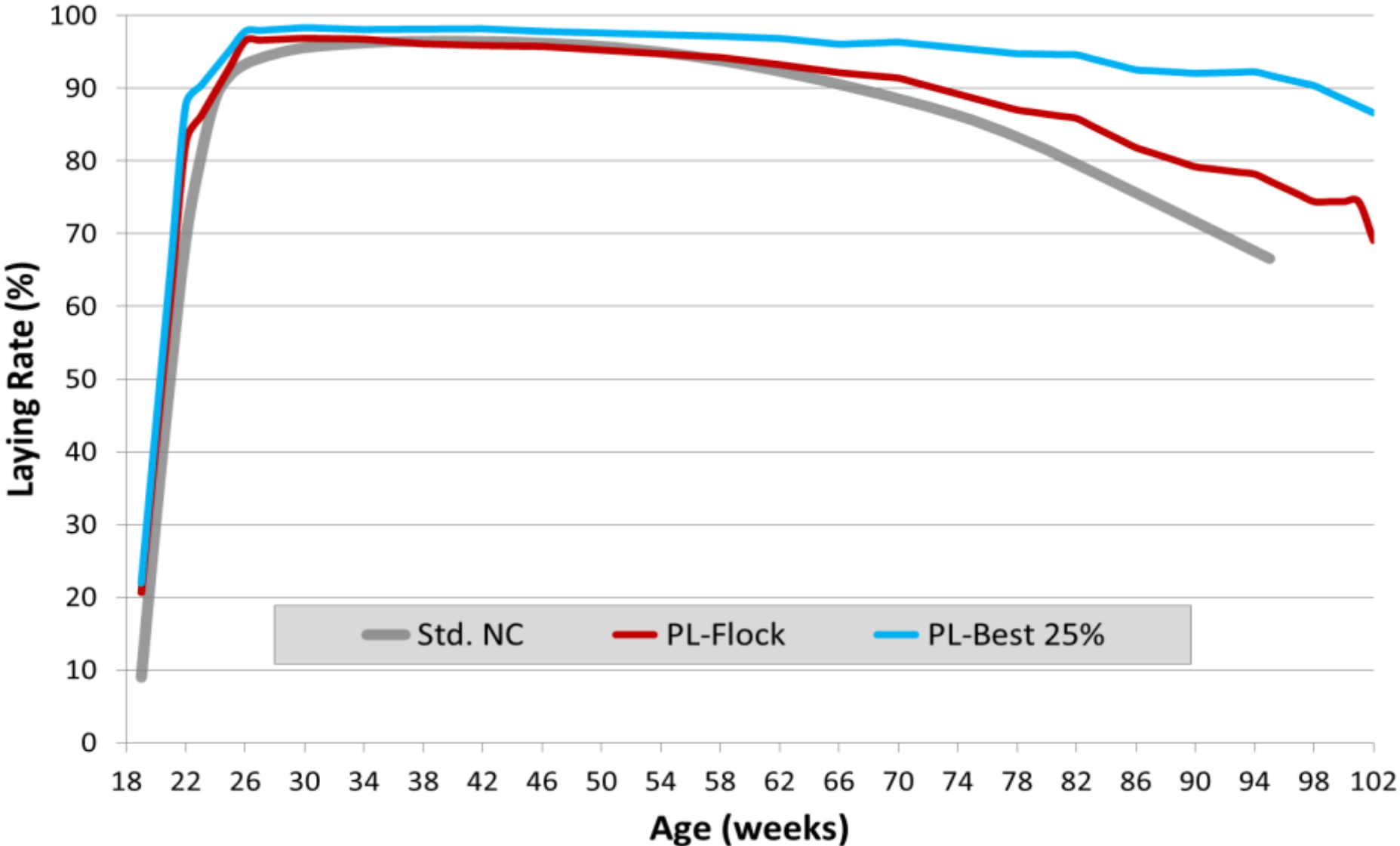# Nick Chick Outlook

Dr. David Cavero Pintado

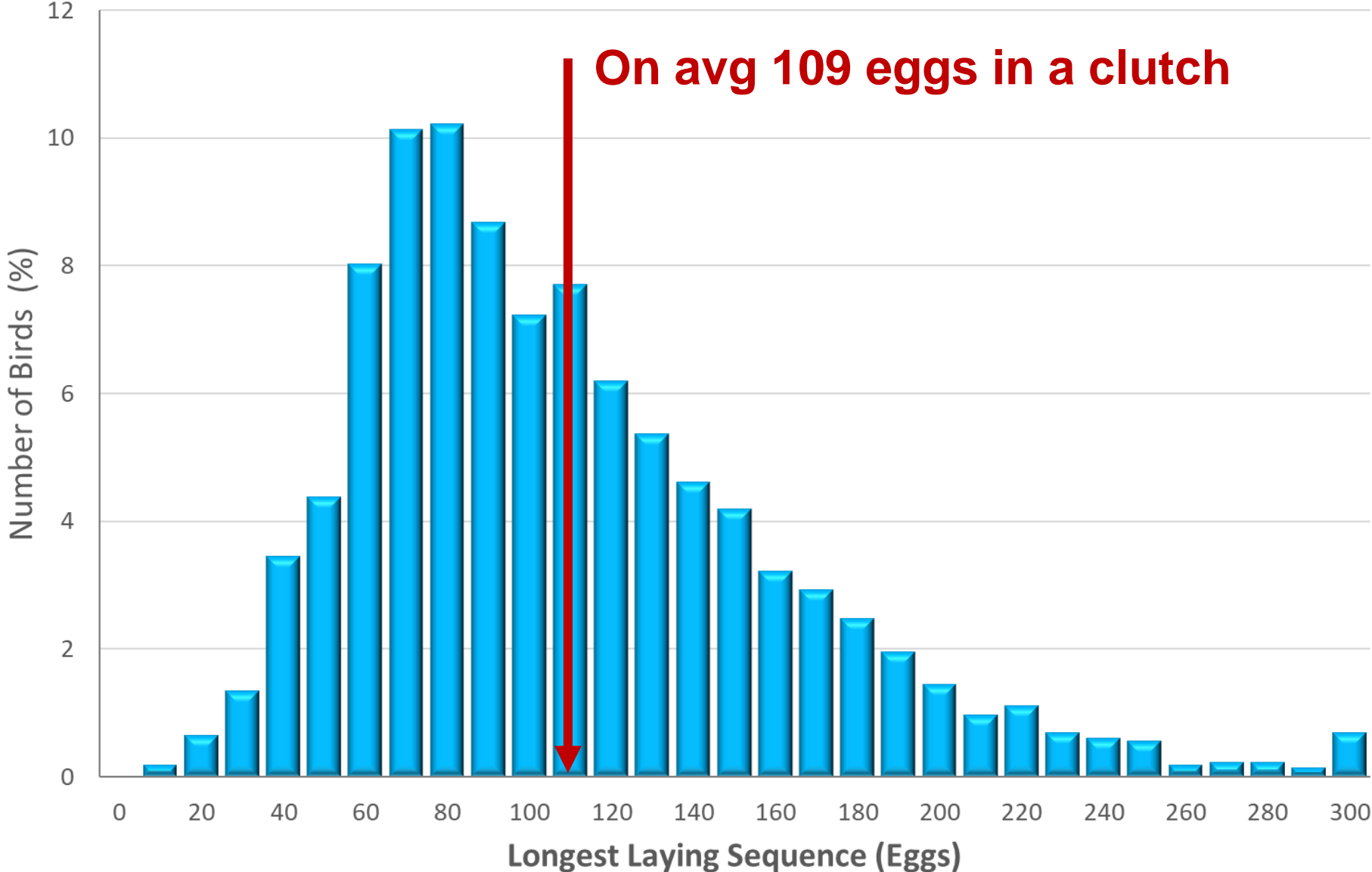**H&N Layer Academy North America – 21st September 2021**

Structure of the Laying Breeding

White Pure Line – 102 weeks

White Pure Line – Clutch length
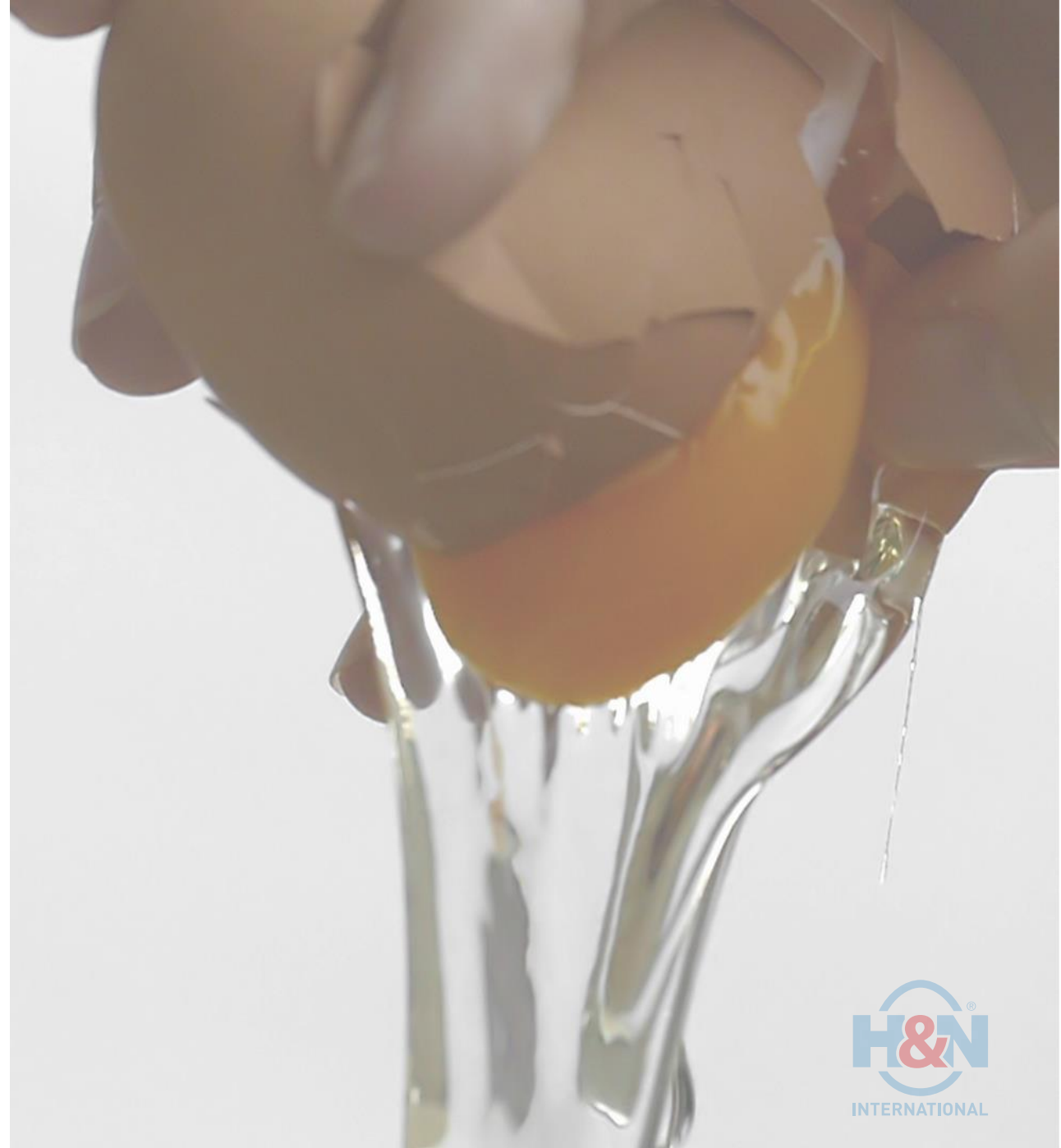

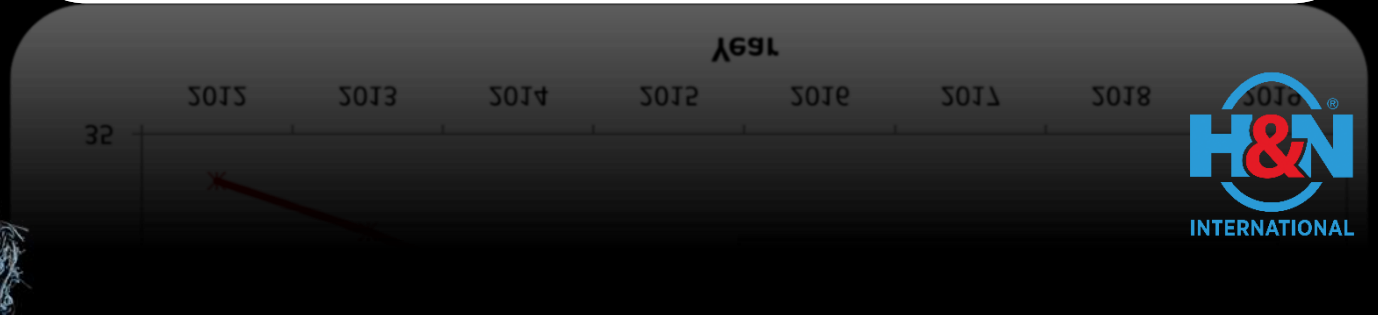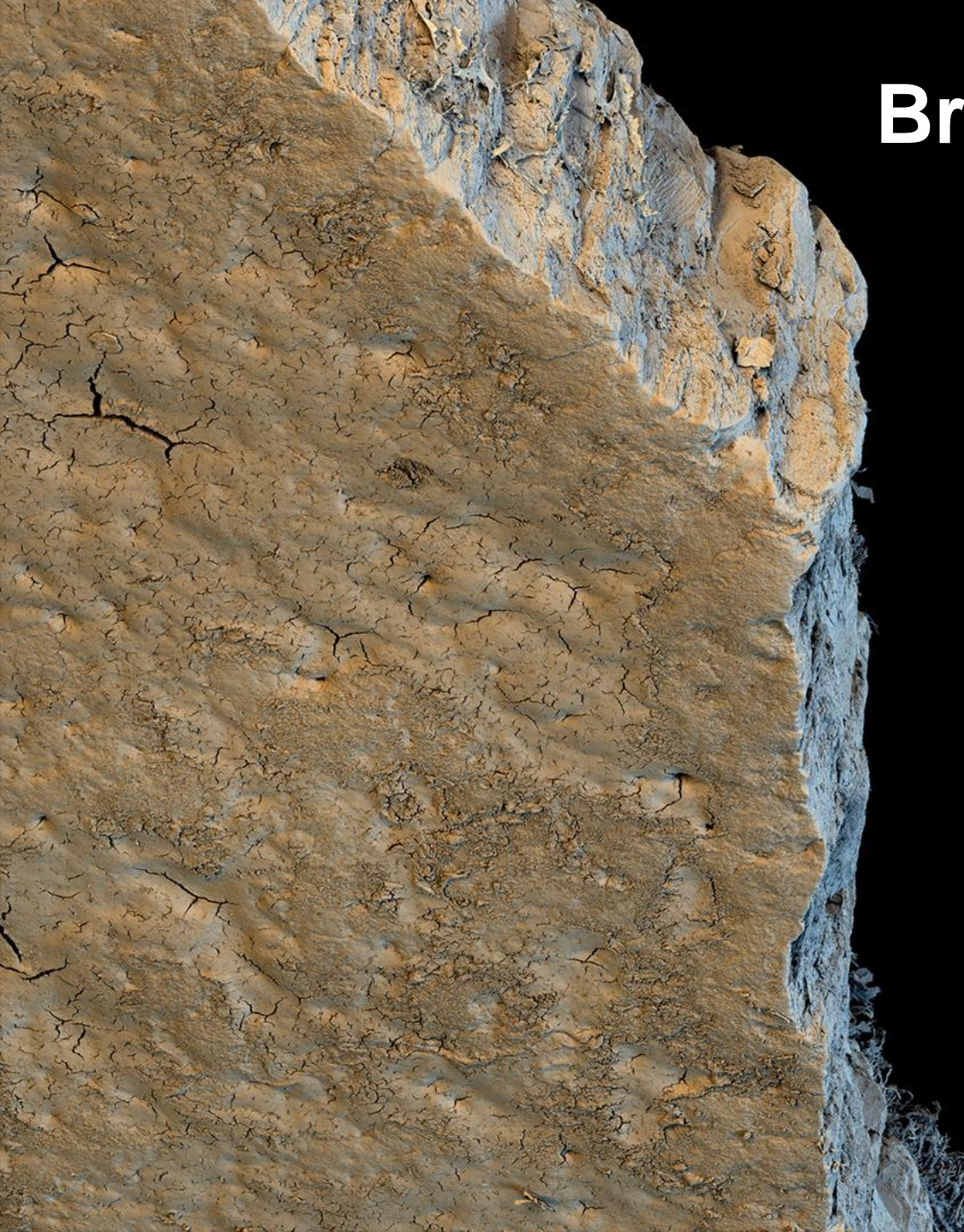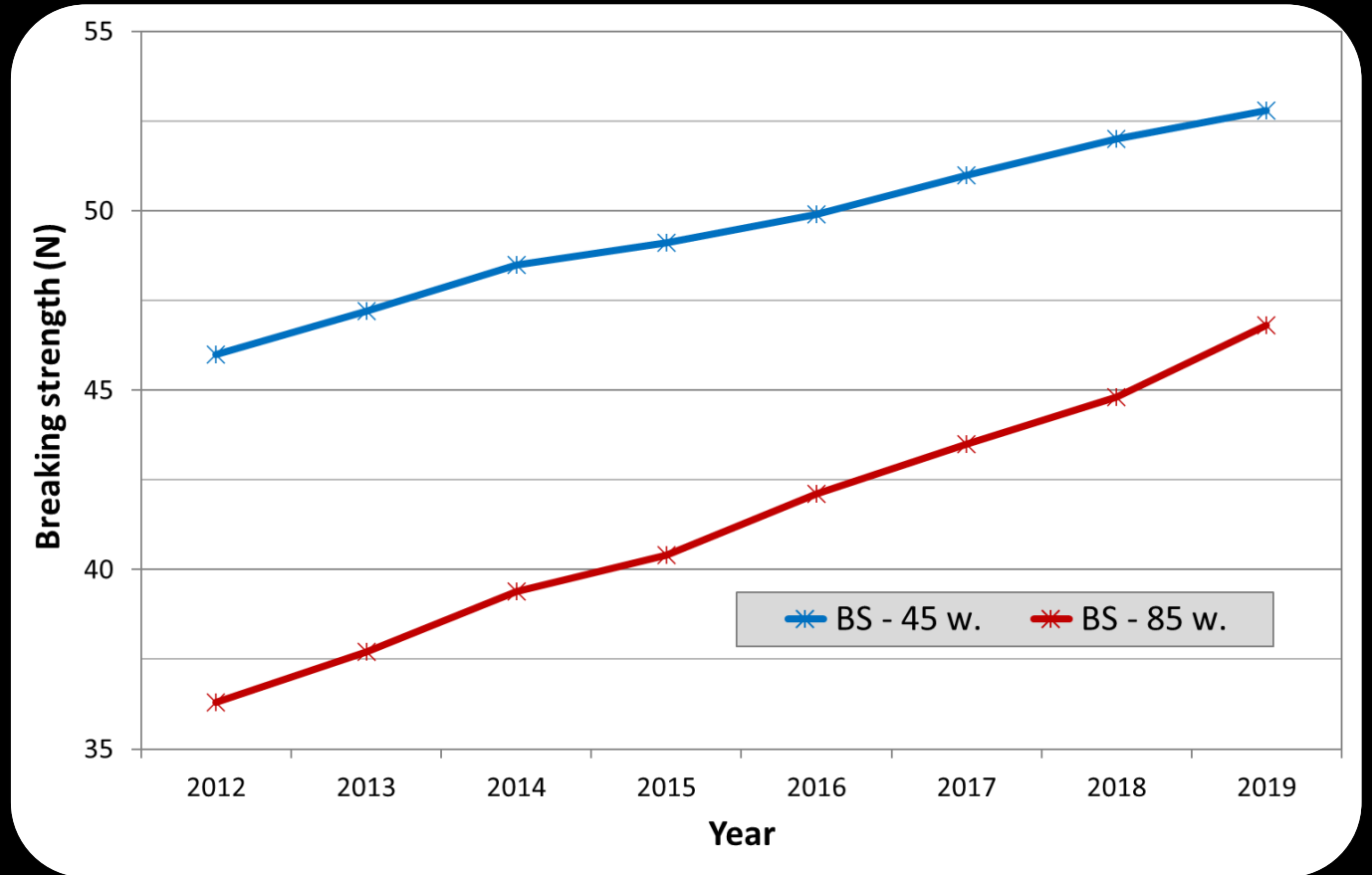On avg 109 eggs in a clutch

Breaking the egg

H&N eggs only break at the right time!

Selecting for a better eggshell:

- ✓ Reduce waste
- ✓ Decrease contamination risk
- ✓ Extend flock production life

Breaking Strength

Improve Bone Stability
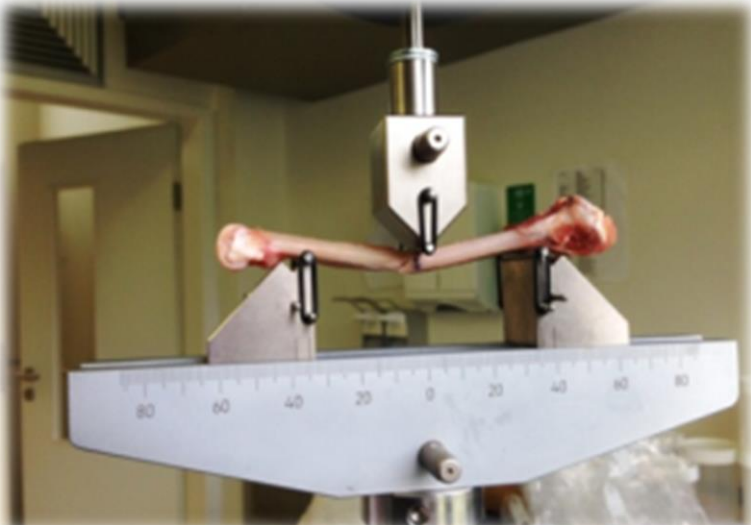
Bone Quality
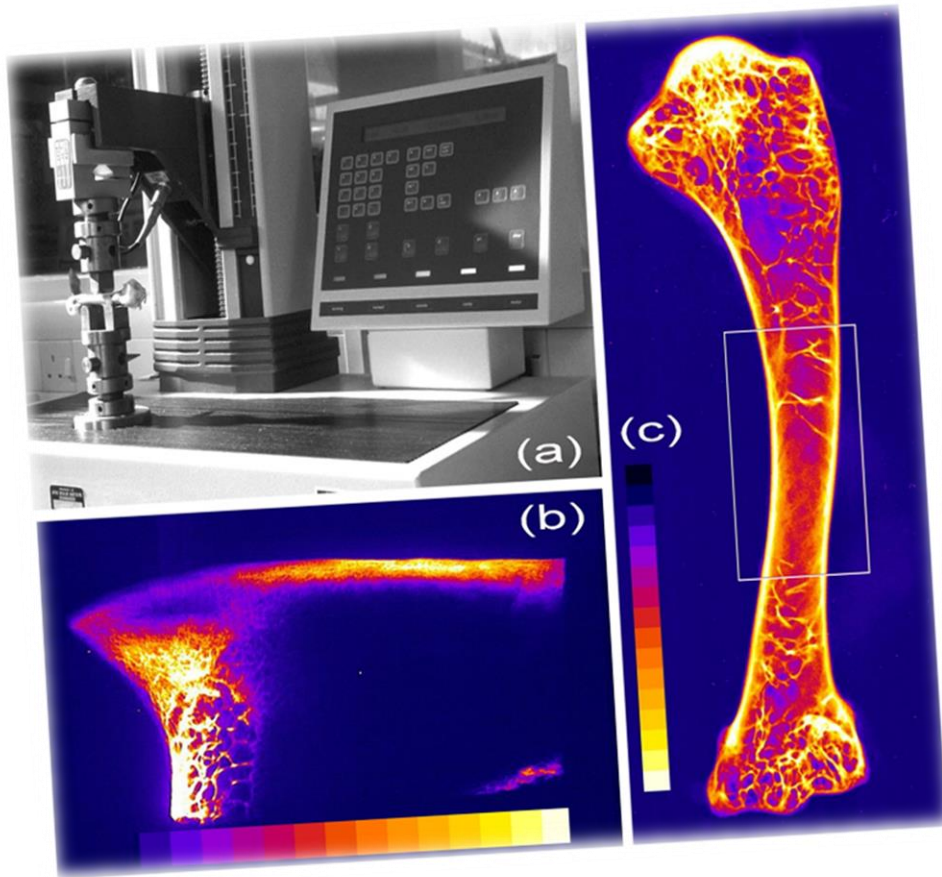
Post-mortem Bone Quality

- ✓ No neg. correlation with persistency (r_g=+0.25)

- ✓ No link to BS (r_g=±0.1)

- ✓ Neg. correlation with early maturity (r_g=-0.73)

- ✓ Well-mineralised medullary bone is important for skeleton quality

- ✓ Keel bone is hard to measure and h^2=0.03

(Source: Dunn et al., 2021)

Rearing: An investment for the future
Not only Costs! - The key to success!

Body Weight Development & Uniformity

Good Immune System

Feed Intake Capacity

Egg Weight

Influencing Factors:

➢ Light stimulation, Body Weight, Feed

➢ Genetic – $h^2 \sim 0.6$

Goals:

➢ Max. N. eggs in desired class

➢ Fast EW increase at the beginning

➢ Flat EW curve after 60 weeks

Selection for better feed efficiency

- **Sufficient feed intake at greatest nutrient demand**
- Focus is not only in FCR, but mainly in IOFC
- **No special high-density diet – Flexible in raw material**
- Feed intake according to production

Better feather cover & behavior

Selection for low mortality and good feather cover

Adaptability to different environments

Field Test - Performance recording

Birds tested in several continents

- ✓ Egg Production

- ✓ Egg Quality

- ✓ Livability

- ✓ Plumage Condition

- ✓ Pecking

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Breeding for cage-free - Floor Testing
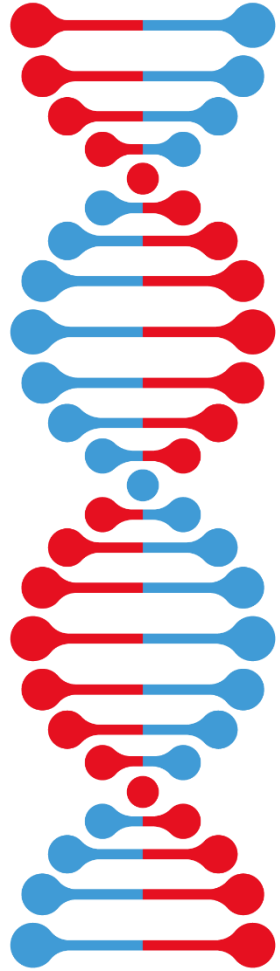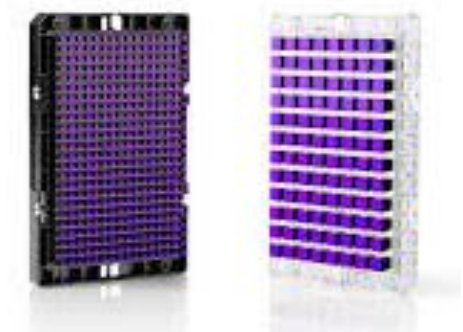## Less floor eggs

Manual Trap Nest in Russia

Genomic Selection

Axiom® 384/96 Format (Affymetrix)

DNA Analysis

➢ MD 50k SNP-Array

➢ Better use of genetic variation

➢ By-product: Pedigree check

➢ **Higher genetic progress in layers**

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New Traits - Artificial Intelligence

- Automatic data collection
- **Transform data to information:**
  - ✓ Tracking the animal
  - ✓ Activity
  - ✓ Behaviour
  - ✓ Fitness

Nick Chick – the versatile prolific white bird

Definition

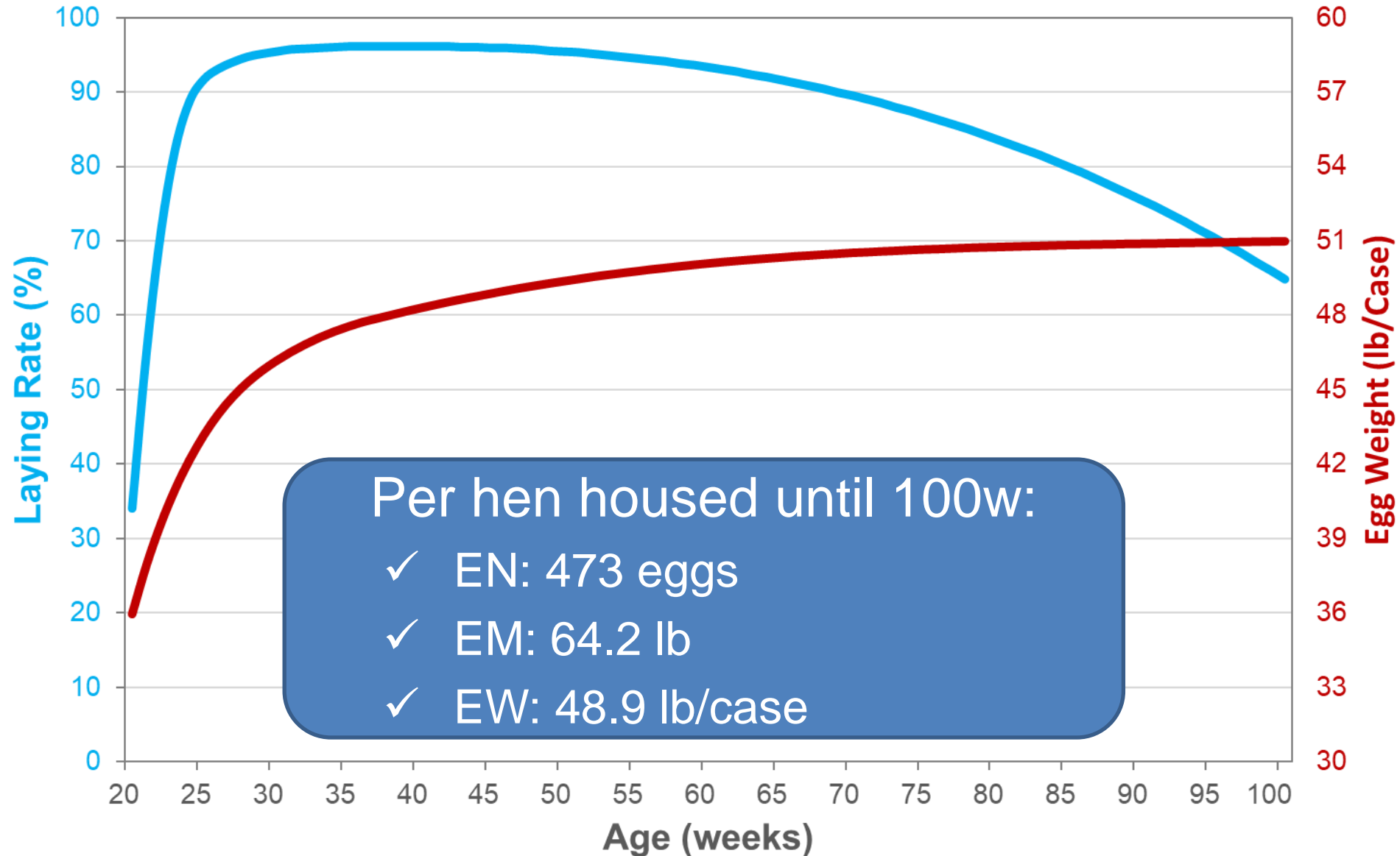- Max n. saleable large eggs with adequate feed intake

Strength

- Outstanding eggshell quality & long laying cycles

- Early optimum egg size and flat EW curve later

- Good behavior and excellent adaptability

Footprint

- In 17 Countries

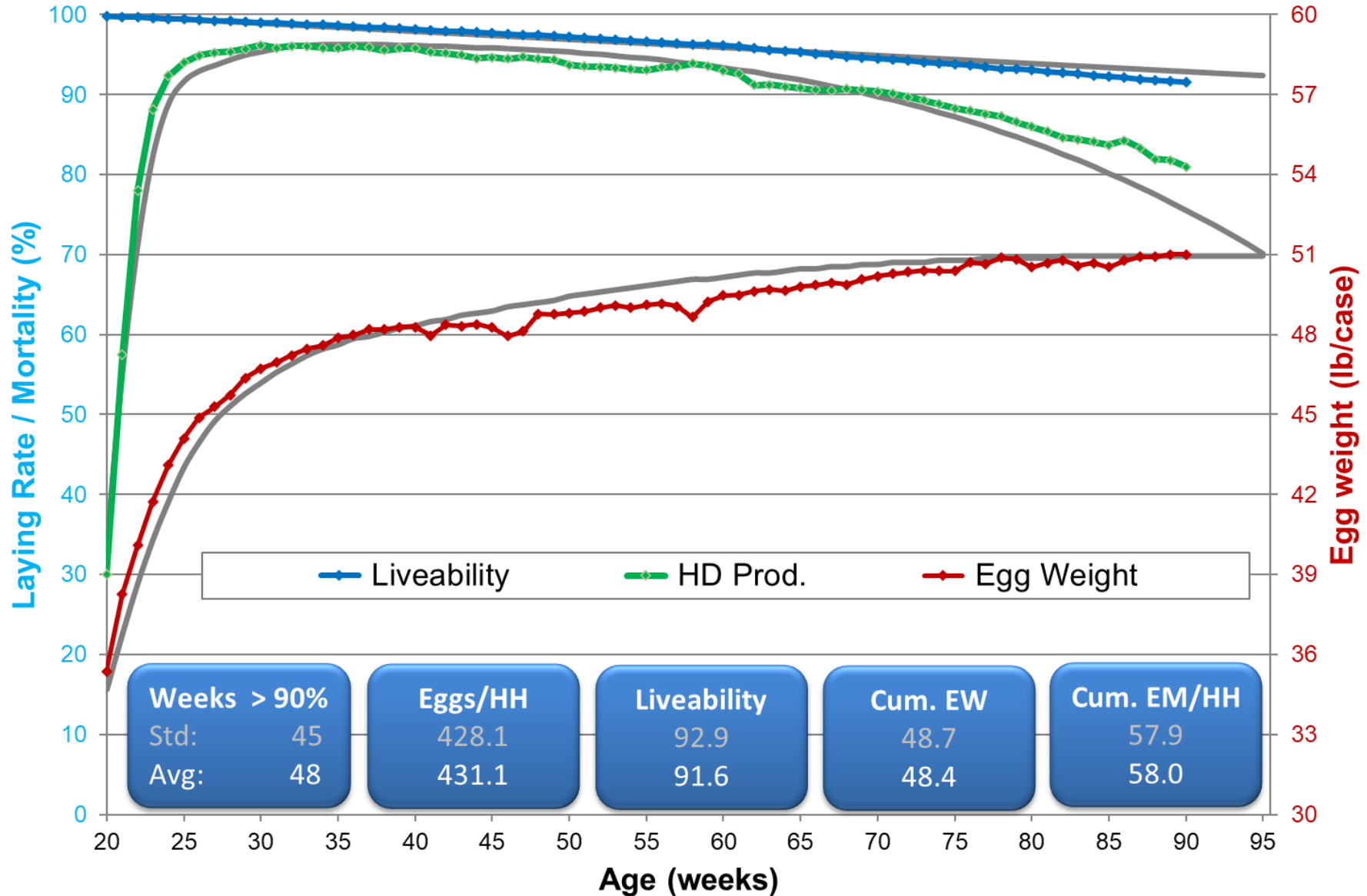- Biggest Markets: USA, Turkey, Brazil, Netherlands, Iran & Canada

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Nick Chick – Standard Production Data

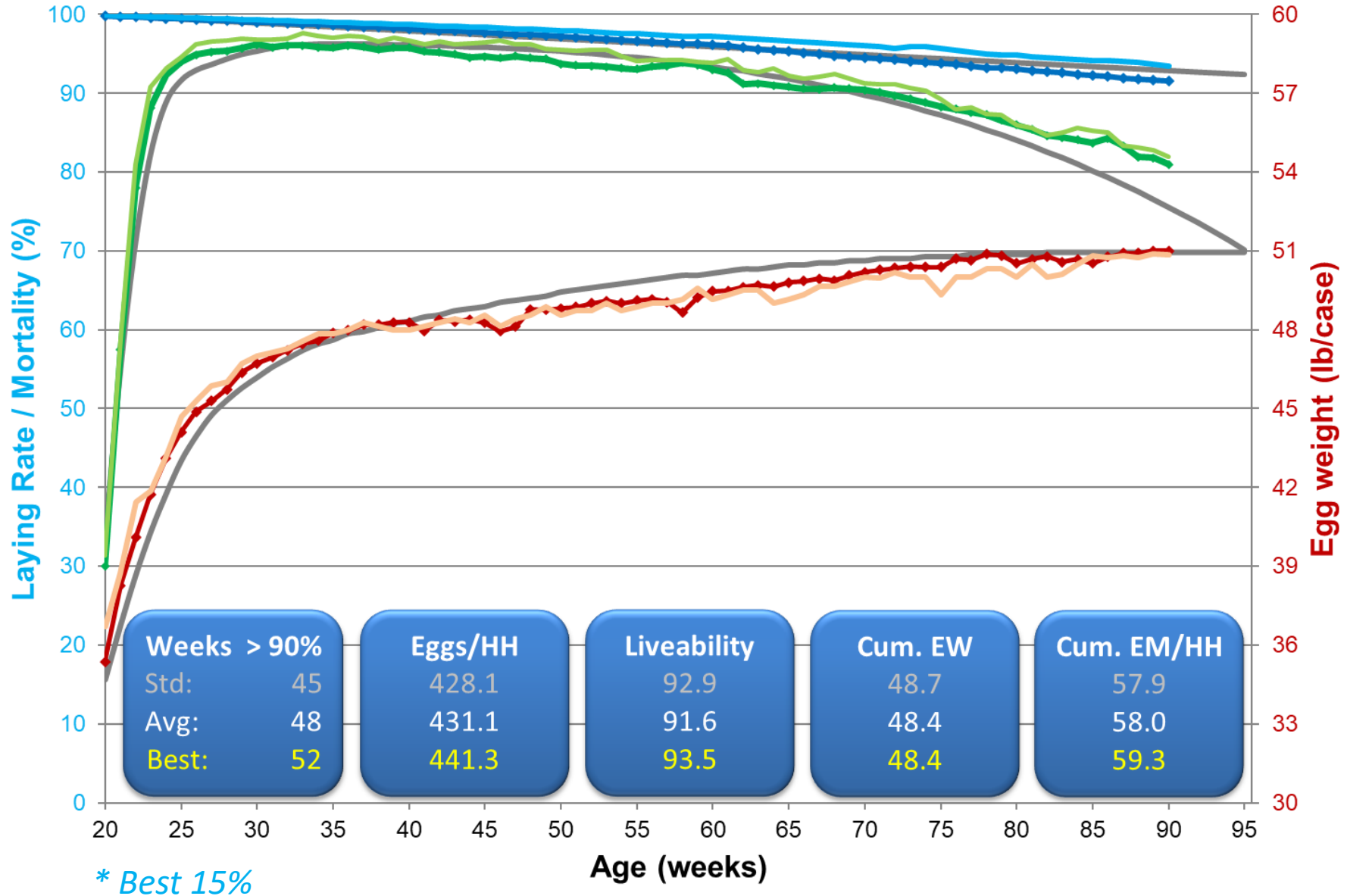Per hen housed until 100w:
- ✓ EN: 473 eggs
- ✓ EM: 64.2 lb
- ✓ EW: 48.9 lb/case

www.hn-int.com

Nick Chick in USA – 152 flocks (2016-2020) ~ 15.5 Mill.

Nick Chick in USA – 152 flocks (2016-2020) ~ 15.5 Mill.

Weeks > 90%		Eggs/HH	Liveability	Cum. EW	Cum. EM/HH
Std:	45	428.1	92.9	48.7	57.9
Avg:	48	431.1	91.6	48.4	58.0
Best:	52	441.3	93.5	48.4	59.3

Best 15%

Thank you for your attention!
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