INTERNATIONAL

The key to your profit!

Genetic and commercial value of H&N birds

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H&N Layer Academy Asia – May 11, 2021

Data Recording – Breeding Farms

Single Cages

Group Cages

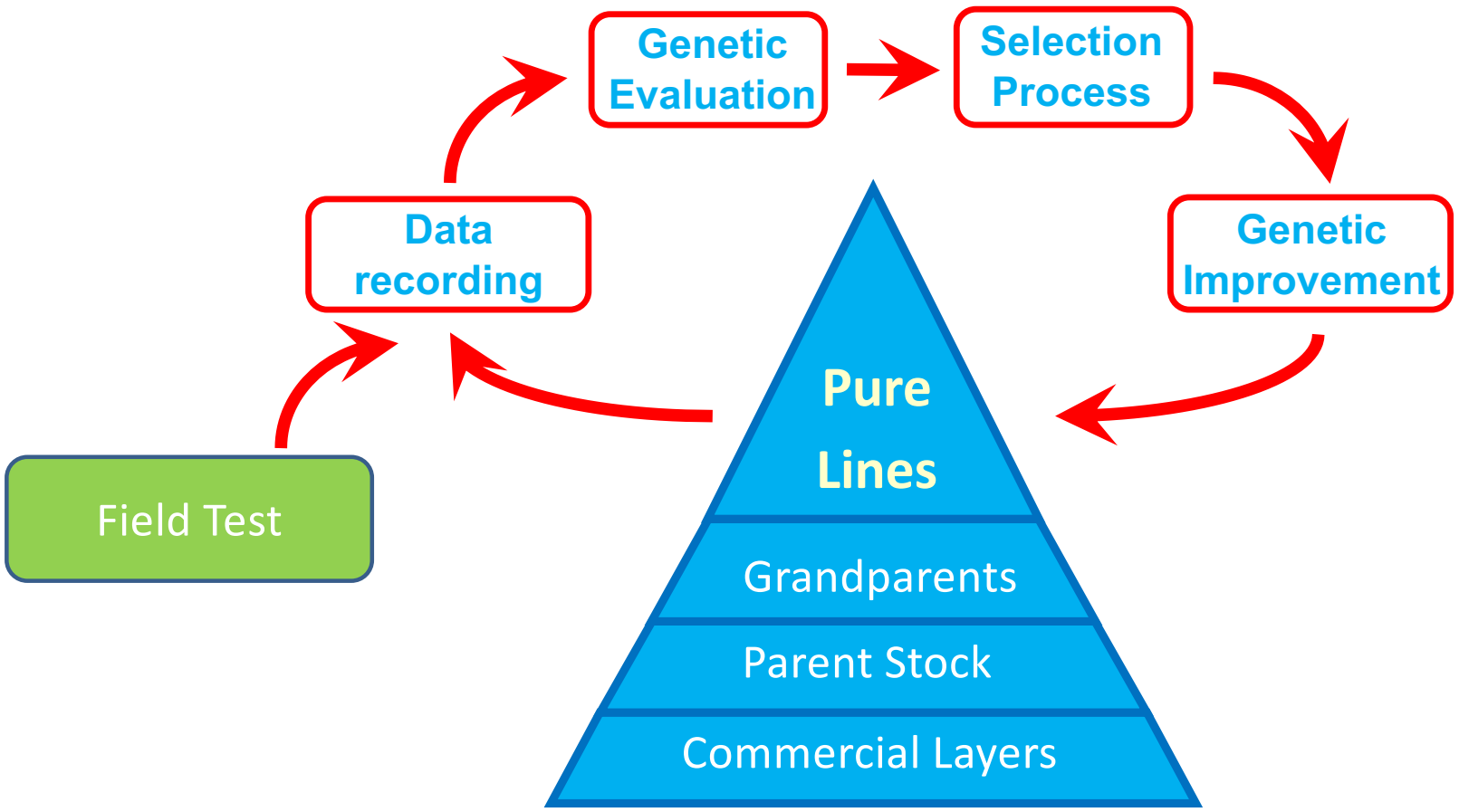
Floor System

Data Recording – Commercial Farms

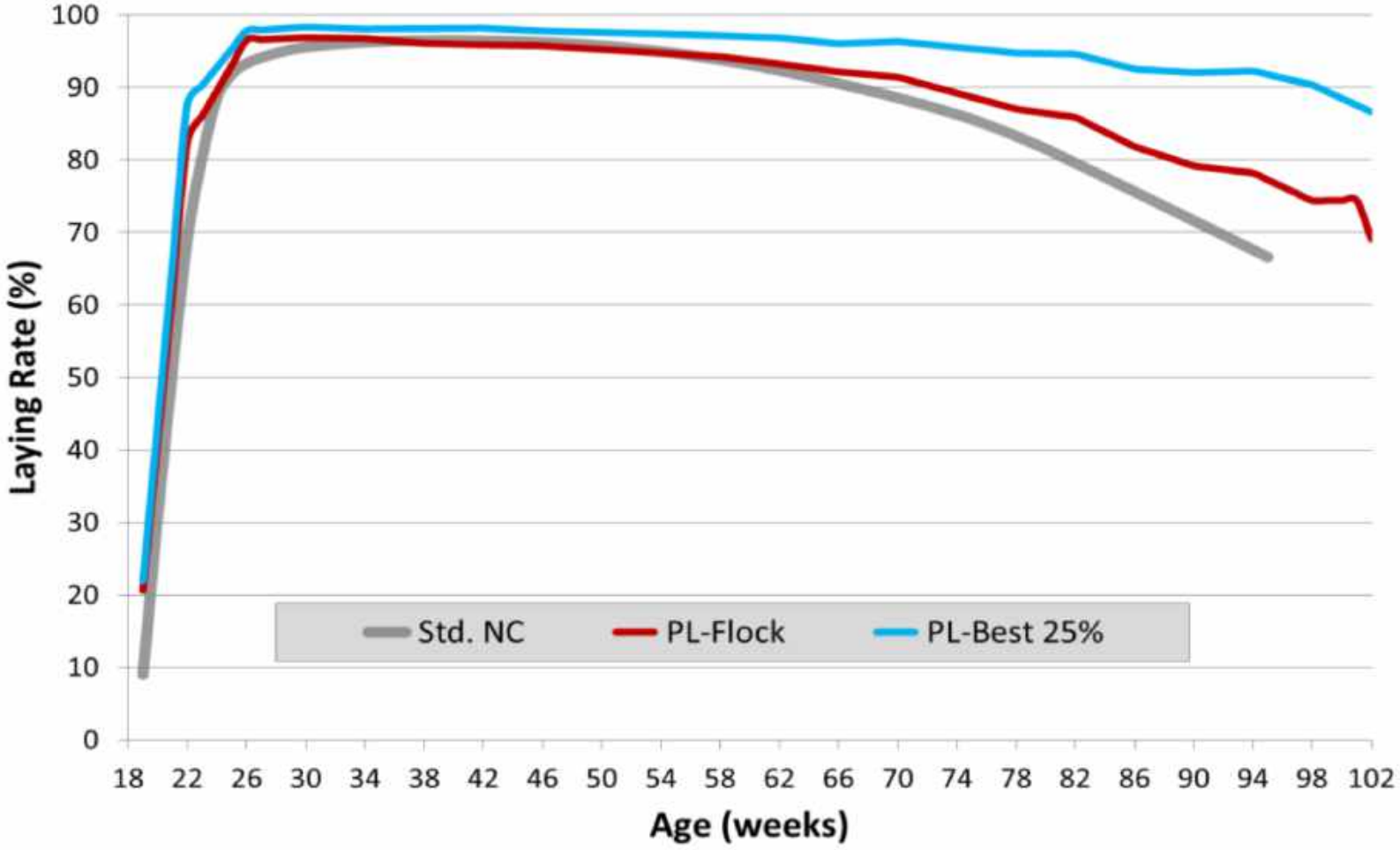
Group Cages

Free Range

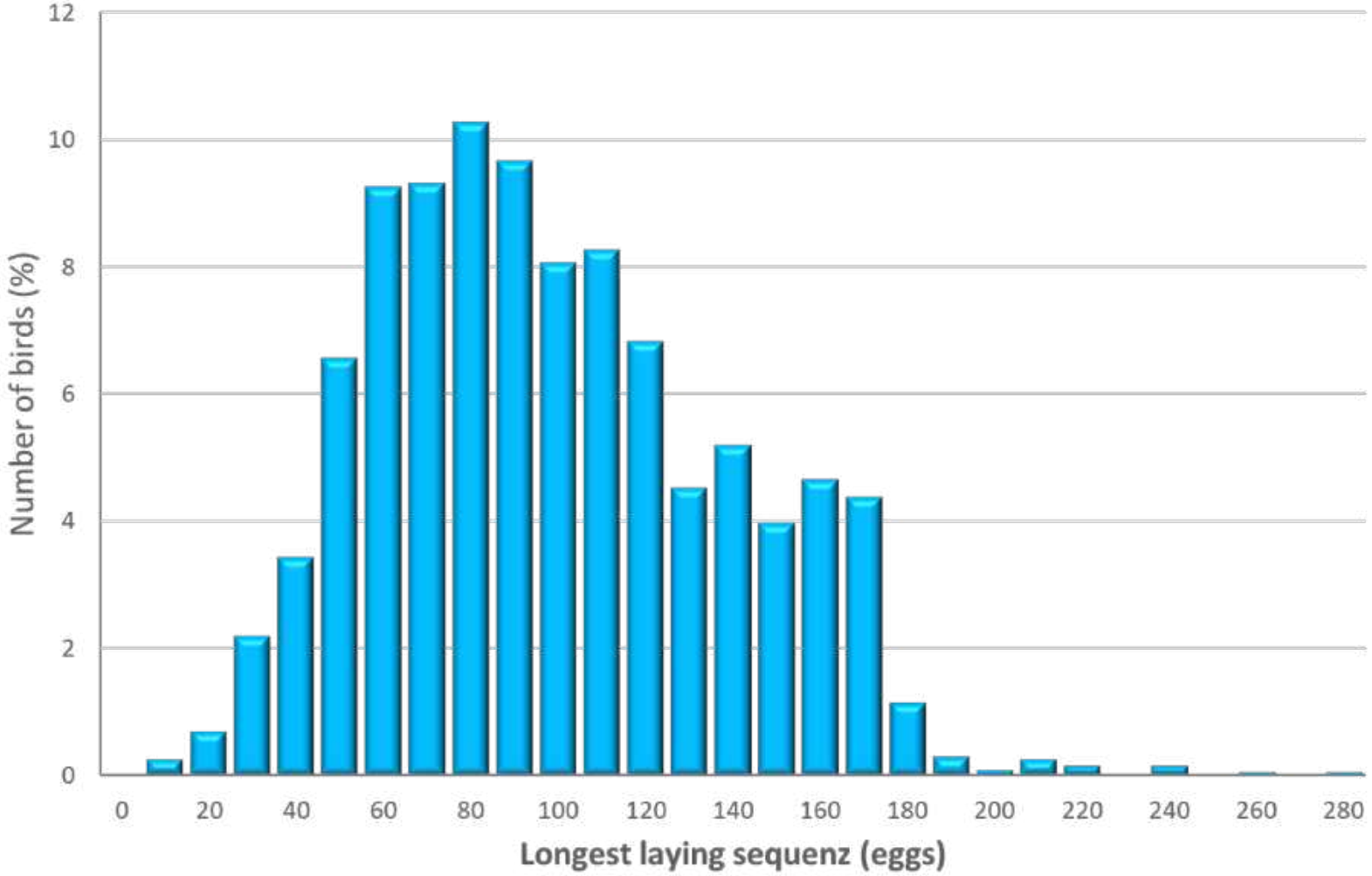
Structure of the Laying Breeding



White Pure Line – 102 weeks



Laying Sequences – Brown Egg Pure Line



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Breaking the egg

H&N eggs only breaks at the right time!

Se l:

- Extend flock production life

Rearing: An investment for the future

Not only Costs! - BW & Uniformity: The key for success!

Good Immune System

Feed Intake Capacity

Good BW & Uniformity = Good Peak + Egg Mass Prod.

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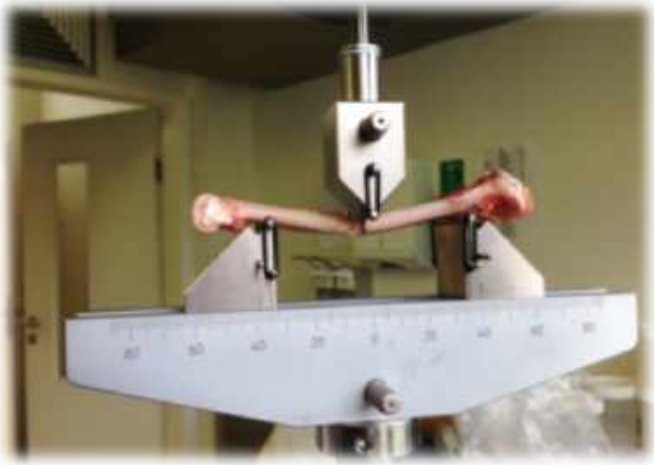
Improve Bone Stability



Source: clker.com

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Egg Weight

Influencing Factors:

- Light stimulation, Body Weight, Feed
- Genetic – h^2 ~ 0.6

Goal:

- Max. N. eggs in desired class
- Fast EW increase at the beginning
- Flat EW curve after 60 weeks

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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

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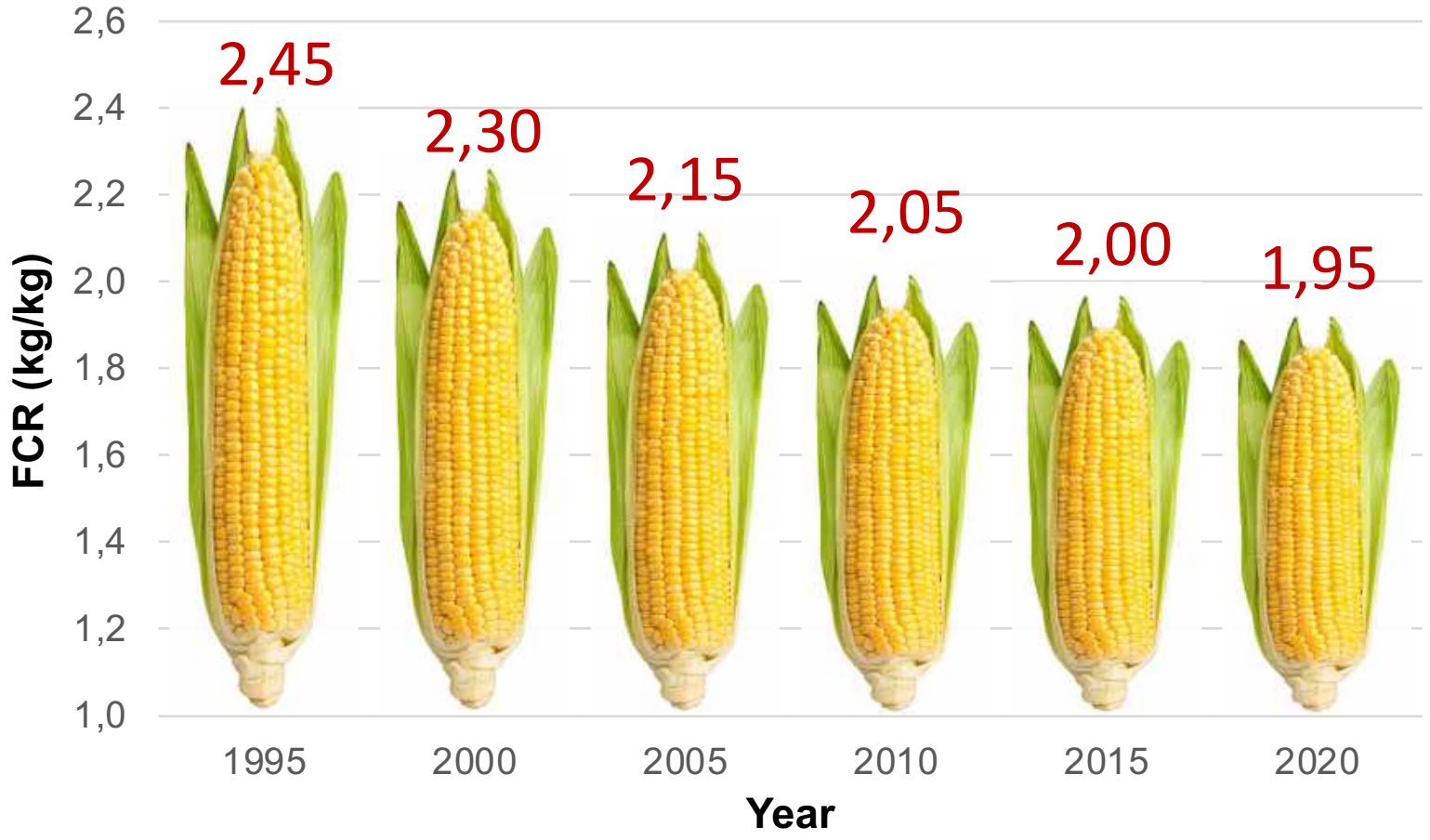
Feed Conversion Ratio – Genetic Trend



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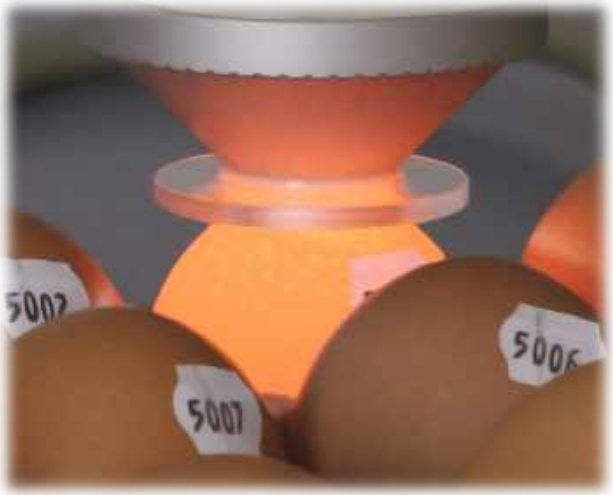
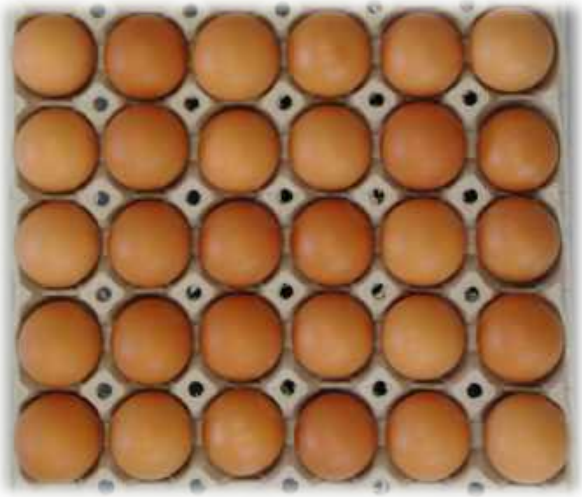
Selection for Eggshell Colour

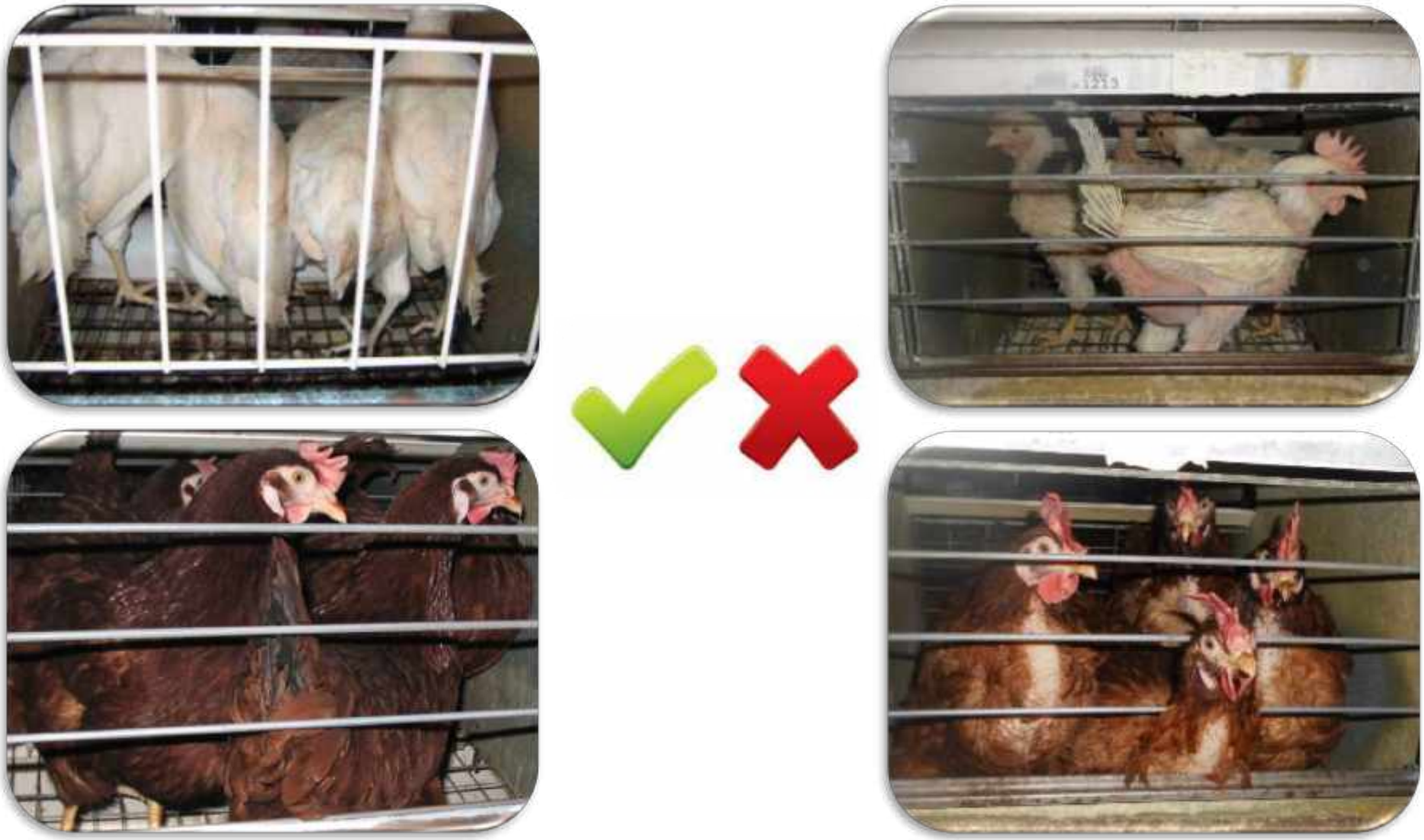
- An attractive and uniform brown shell colour
- Good shell colour until the end of production



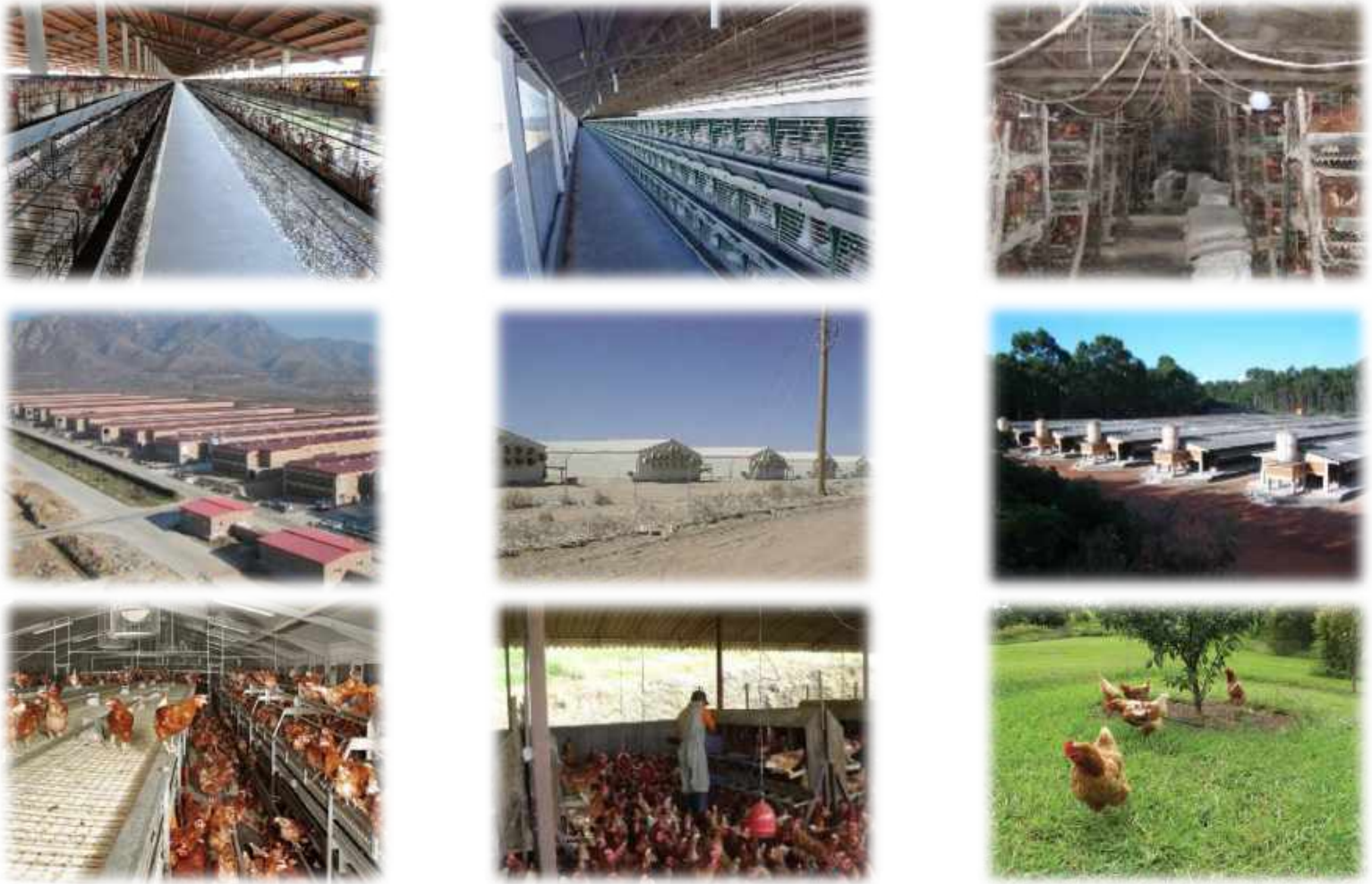


Better feather cover

Selection for low mortality and good feather cover



Adaptability to different environments



Field test under commercial conditions

- Family cages 4-12 half-sibs/cage
- Several cages per family randomly distributed in the house
- No beak treatment at all
- Information is recorded based on cage number

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Field Test - Performance recording

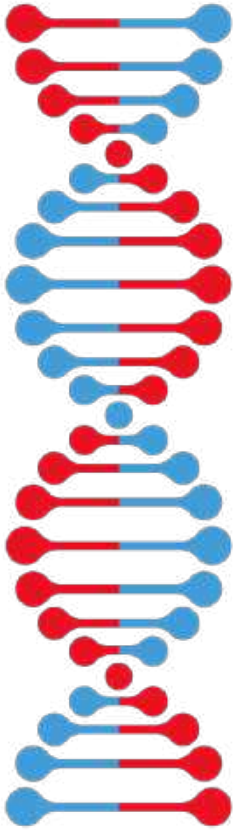
- ✓ Egg Production
- ✓ Egg Quality
- ✓ Livability
- ✓ Plumage Condition
- ✓ Behaviour - Pecking

Breeding for cage-free

Breeding for cage-free

Less floor eggs

Genomic Selection



DNA Analysis

Axiom® 384/96 Format (Affymetrix)

- MD 50k SNP-Array
- More accurate Breeding Values
- **Higher genetic progress in layers**
- Better use of genetic variation
- By-product: Pedigree check

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New Traits - Artificial Intelligence

- Automatic data collection (sensors, cameras,..)
- Transform data to information:
  - ✓ Tracking the animal
  - ✓ Activity
  - ✓ Behaviour
  - ✓ Fitness

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