



Animal welfare research in Europe

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How to present this in 25 minutes?

- 'Only' farm animals
- 1. Welfare Quality[®]
- 2. Other farm animal welfare research
- 3. What is needed?



Welfare Quality ®

Official title:

**Integration of animal welfare in the food quality chain:
from public concern to improved welfare and transparent quality**

- **Funding:** European Union | FP6 Priority 5 “Food Quality and Safety”
- **Total cost:** €17 million - EU contribution: €14.6 million
- **Project coordinator:** Prof. Harry J. Blokhuis
- **Participants:**

20 countries of which 15 European

44 institutes and universities

- **Website:** www.welfarequality.net
- **Period:** May 2004 - December 2009

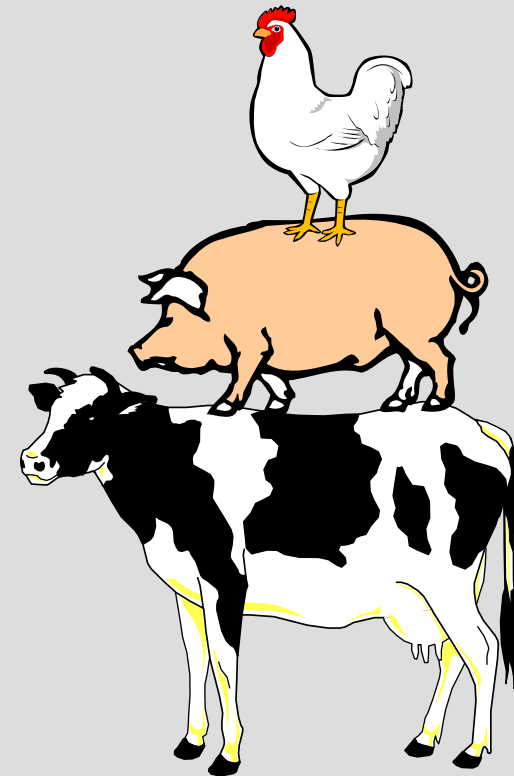
Welfare Quality ®

1. Consumer, retailers and producers **concerns**
2. Develop **on-farm monitoring** and information systems
3. Define practical **species-specific strategies** to improve welfare
4. **Implement** monitoring system and improvement strategies
5. **Integration** of animal welfare developments in Europe and Latin America

Welfare Quality ®

Sub-project 3. Define practical **species-specific strategies** to improve welfare

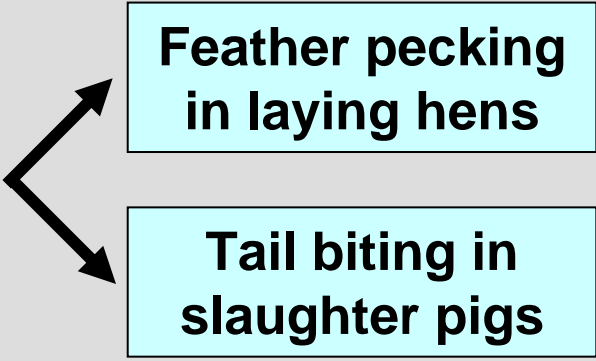
- 1. Handling stress**
- 2. Genetic solutions**
- 3. Injurious behaviour**
- 4. Lameness**
- 5. Neonatal mortality**
- 6. Social stress**



Welfare Quality ®

Sub-project 3. Define practical **species-specific strategies** to improve welfare

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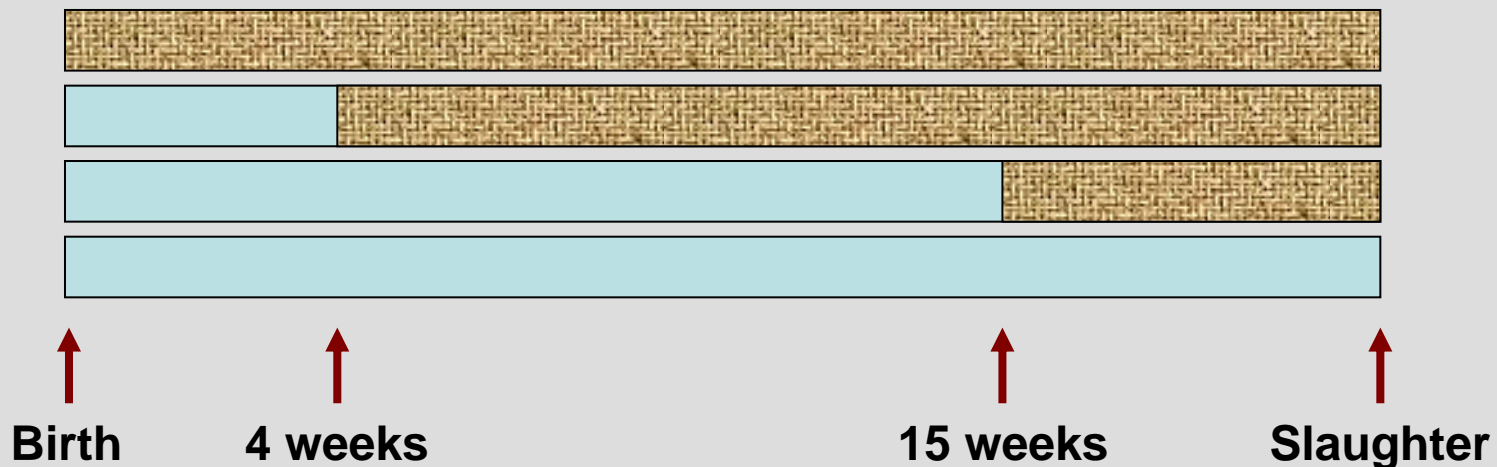
Feather pecking
in laying hens

Tail biting in
slaughter pigs

Welfare Quality[®] Tailbiting in slaughter pigs



1. Test to identify potential 'problem pigs'
2. Examine the effect of age at straw provision



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Tail biting and tail docking

Tail biting is a problem in some groups of growing pigs
Tail docking is an attempt to prevent tail biting

- Does it work ?
- How much tail should be left/removed?
- Pain perception
- The signal value of the tail



Litter-size and new-born survivability

Mortality at birth is too high in litter-bearing production animals

- **Selection for increased litter-size → long-term effects on young**
- **How does stress around parturition affect survivability ?**



Enrichment of mink cages

Solitary animals kept in a small and barren environment

- Abnormal and injurious behaviour (stereotypies, fur-gnawing)

↑ Complexity

Tail-chew ↓

Stereotypies ↓

Basal cortisol ↓

↑ Area (double-cages)

No effect





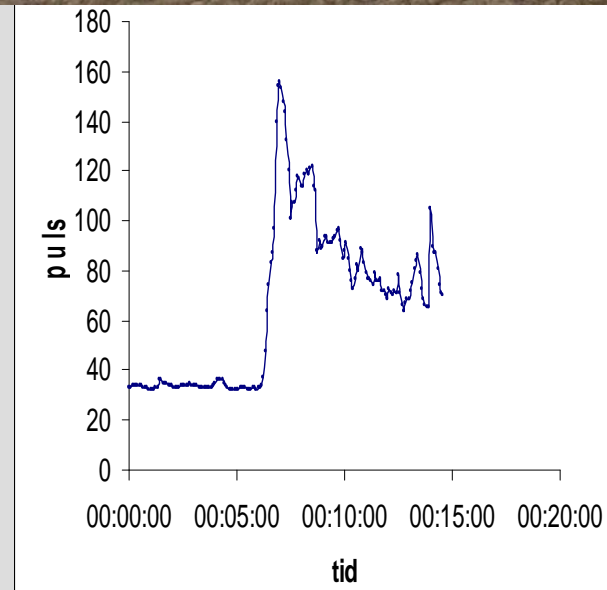
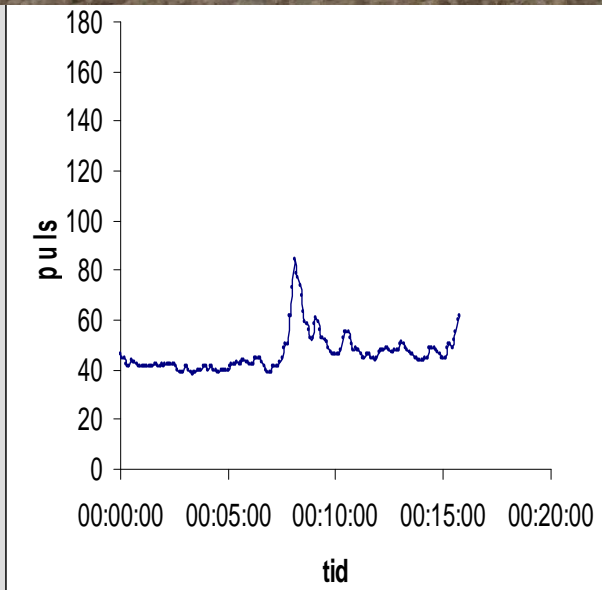
Milk feeding of calves in groups



Teat feeding →
↓ Abnormal sucking

Barriers →
↓ Competition for milk

Handling and reactivity of horses



Quantification of biological needs

Operant conditioning

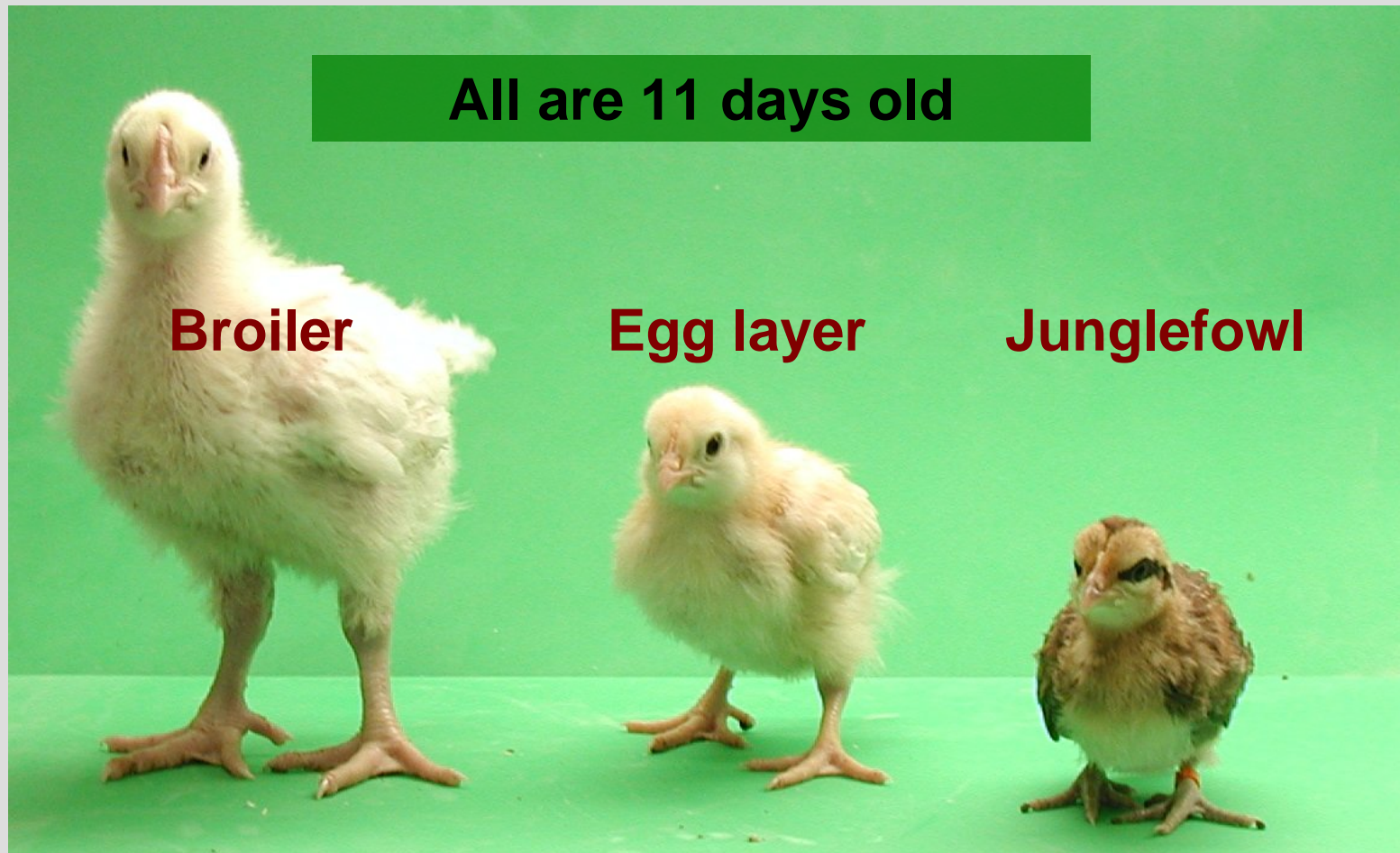
- how hard will the animal work for a given resource?



Selection for production

Selection for ↑ growth and ↑ egg-production in poultry

- What are the behavioural, health, and welfare consequences?

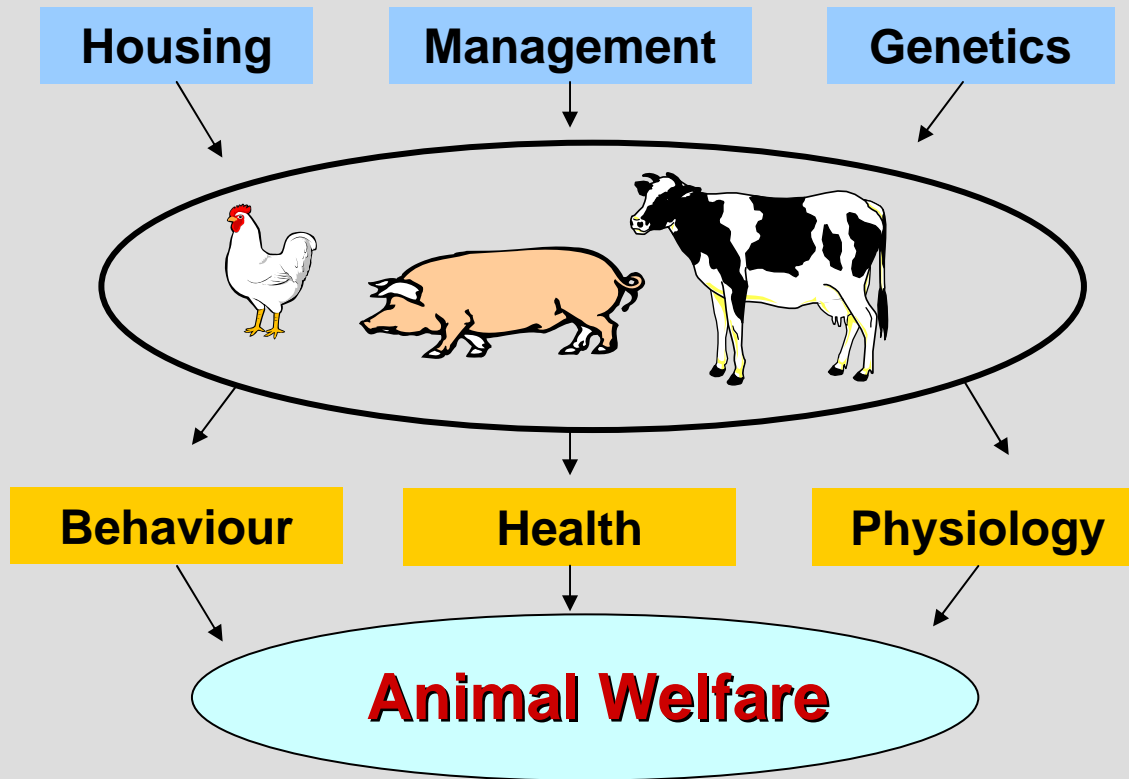


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What is needed? (1)



What is needed? (2)

Pain perception

- lameness, visceral pain
- tail docking, de-horning, castration

Transport

- when is an animal not suitable for transport?
- stops (duration, frequency, off-loading)

Feeding systems

- can we stimulate farm animals through feeding?
- utilise changes in feeding behaviour in diagnostics

Animal welfare economics

- Is improved welfare always costly?

We still do not know the optimal time for separation of calf and cow...!

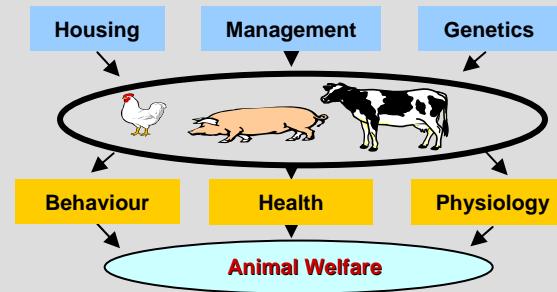


What is needed? (3)

Awareness that...

Animal Welfare Research

- basic and applied ethology
- veterinary science
- physiological science
- animal welfare assessment



Welfare Quality ®

- contributes to our knowledge of animal welfare
- but does not answer all the questions



What is needed? (4)

Awareness that...

Industry driven funding have pros and cons

- important for relevance and involvement
- but some areas receive too little attention

Networks exist

- grounds for collaboration
(eg. ISAE - International Society for Applied Ethology)
- more interdisciplinary work across and outwith EU

Technology needs biologists!

- Information and Communication Technology
- 'Let behaviour work for you'
- Interpret automatic registrations correctly



Thank you for your attention!

