

Animal welfare concepts - an overview

Zagreb, 29 June

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Our areas of interest in animal welfare?

Transport of animals?

www.awtraining.com

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Our areas of interest in animal welfare?

Industrial scale processing of animals?

www.awtraining.com

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Our areas of interest in animal welfare?

Religious use of animals?

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Our areas of interest in animal welfare?

A young goat with large, curved, reddish-brown horns is lying down in a dirt enclosure. The goat has thick, light brown woolly fur and is looking towards the left. It is positioned in front of a metal fence. The ground is dry and dusty.

Treatment of the individual within large groups of animals

www.awtraining.com

Our areas of interest in animal welfare?

Treatment of the individual animal in all types of farming?

A photograph showing a very dirty and muddy floor in what appears to be a farm or slaughterhouse. The floor is covered in a thick layer of brown, sludgy material, likely manure and dirt. In the background, several black and white cows are standing behind a concrete wall. The overall environment looks unsanitary and poorly maintained.

Sometimes animal
welfare is about
the environment of
care

8

Our areas of interest in animal welfare?



Where animals are bought and sold?

Our areas of interest in animal welfare?



Animals are being 'managed'
and people can be responsive to learning





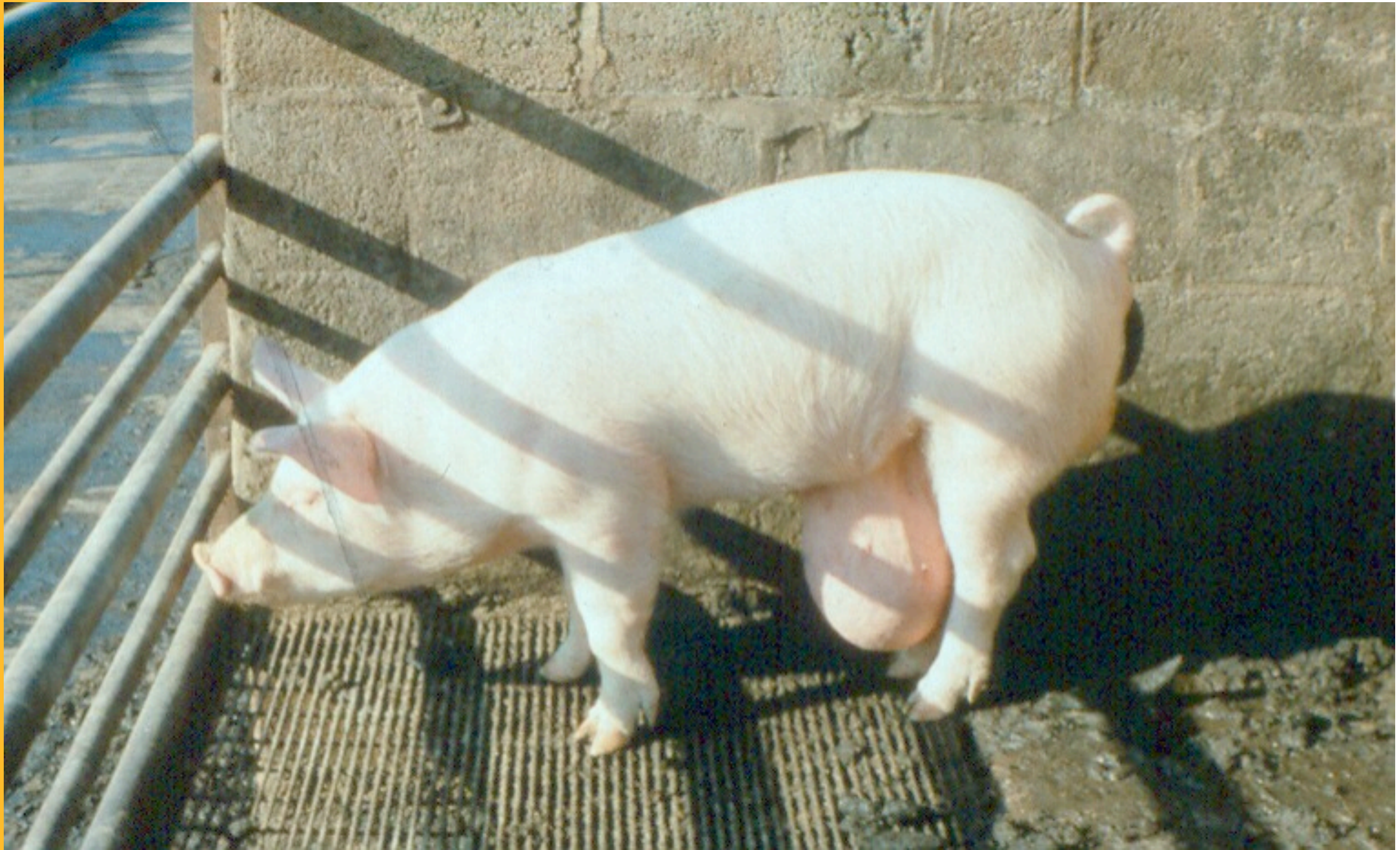


To transport or not



Welfare
Quality









Knowledge relating to a required 'product' that severely compromises welfare.





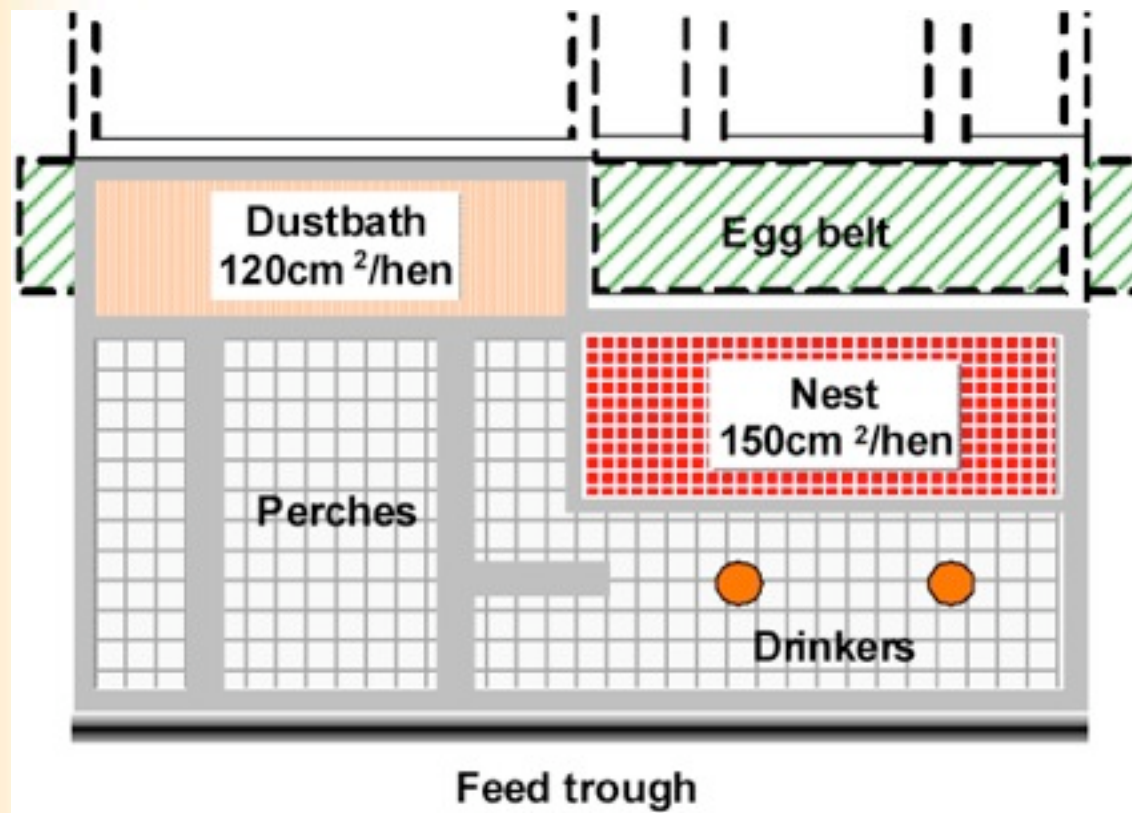




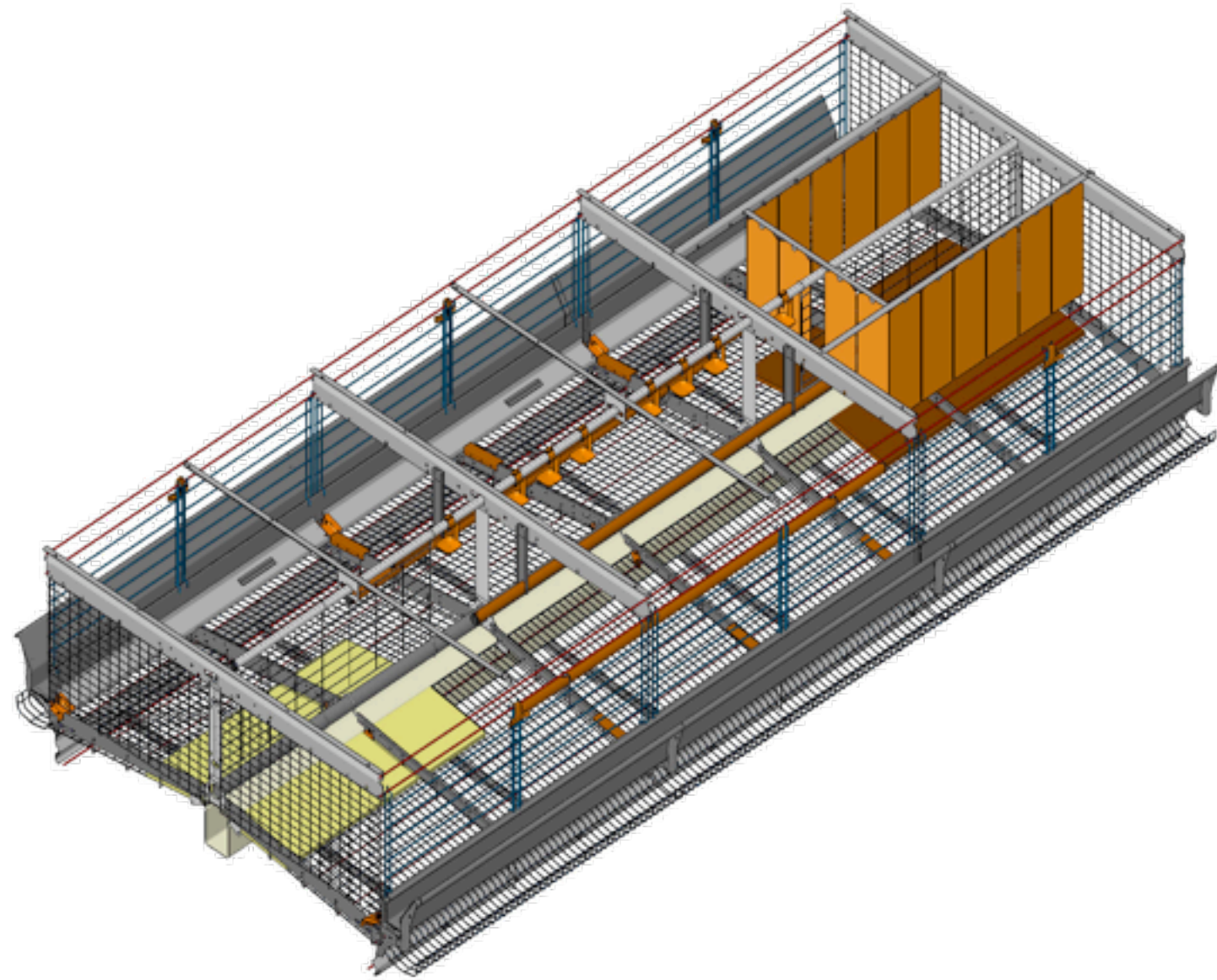
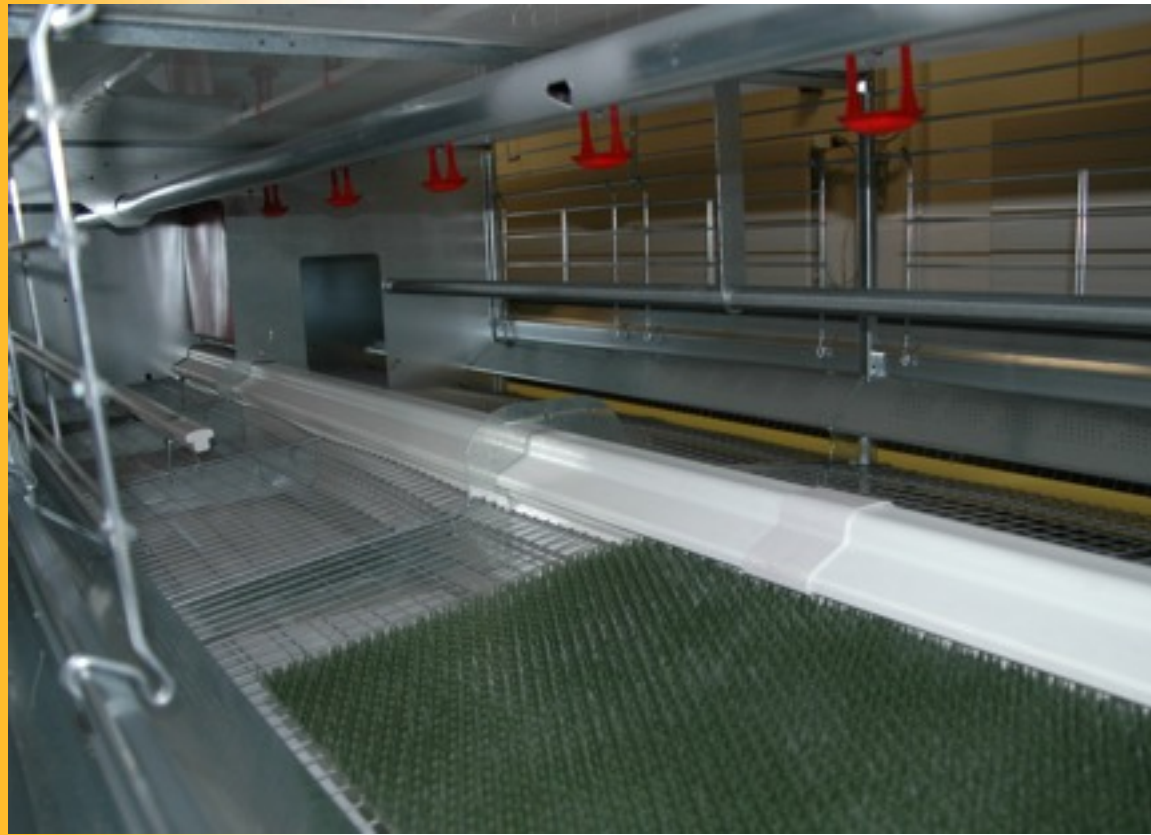


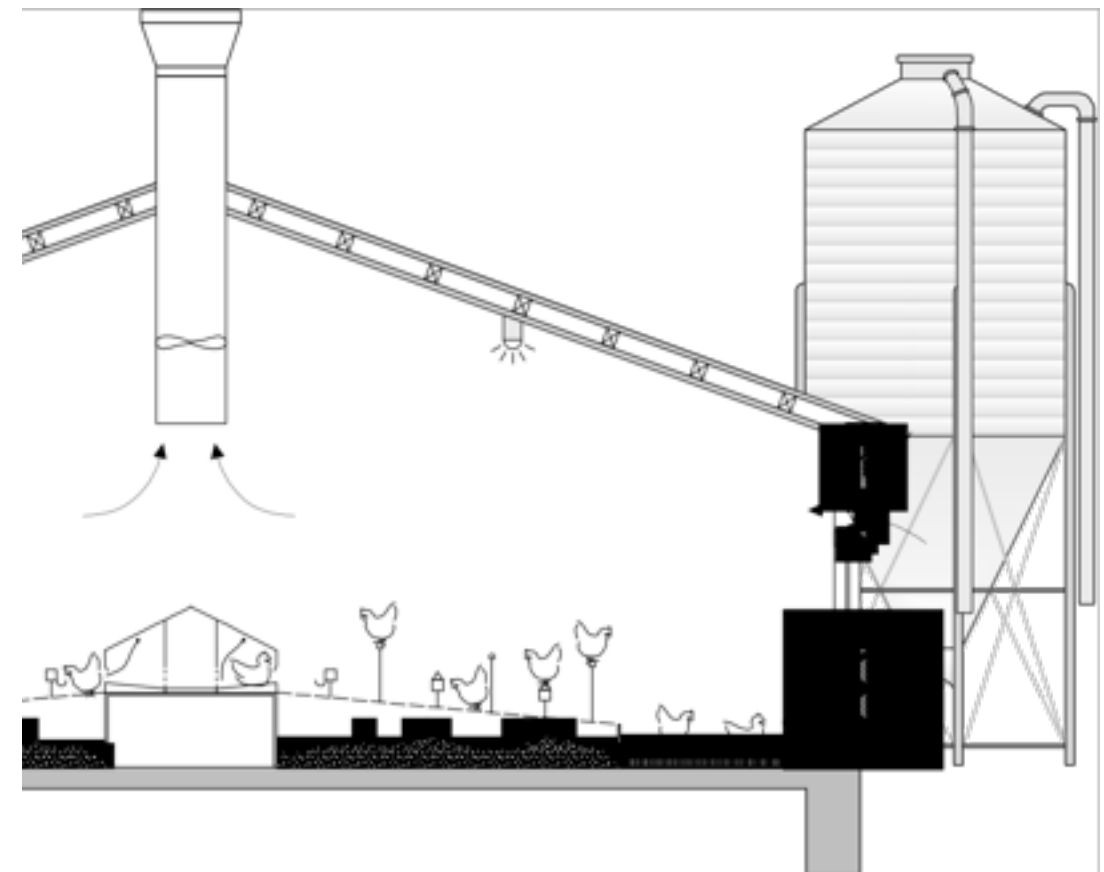
Enriched cage design

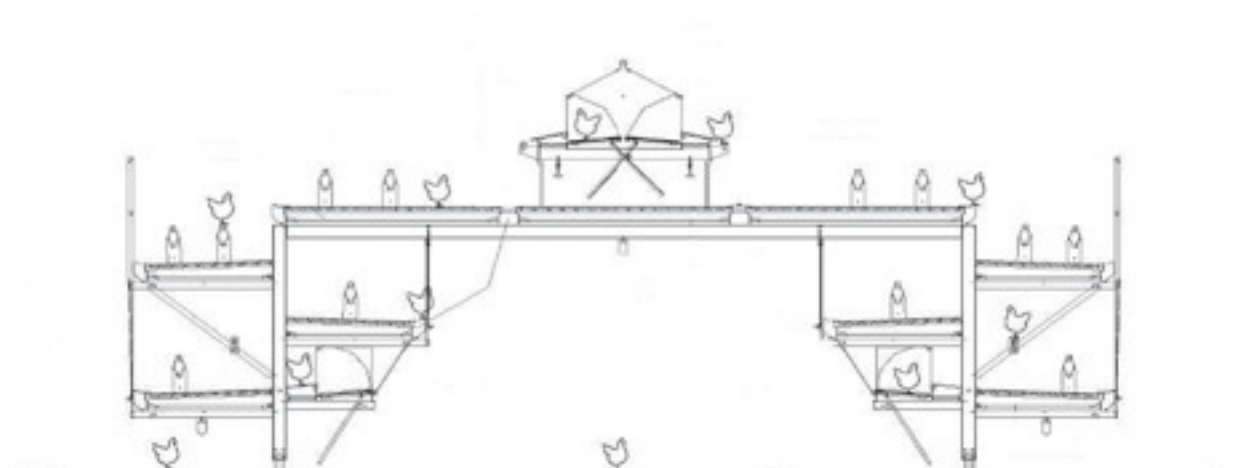
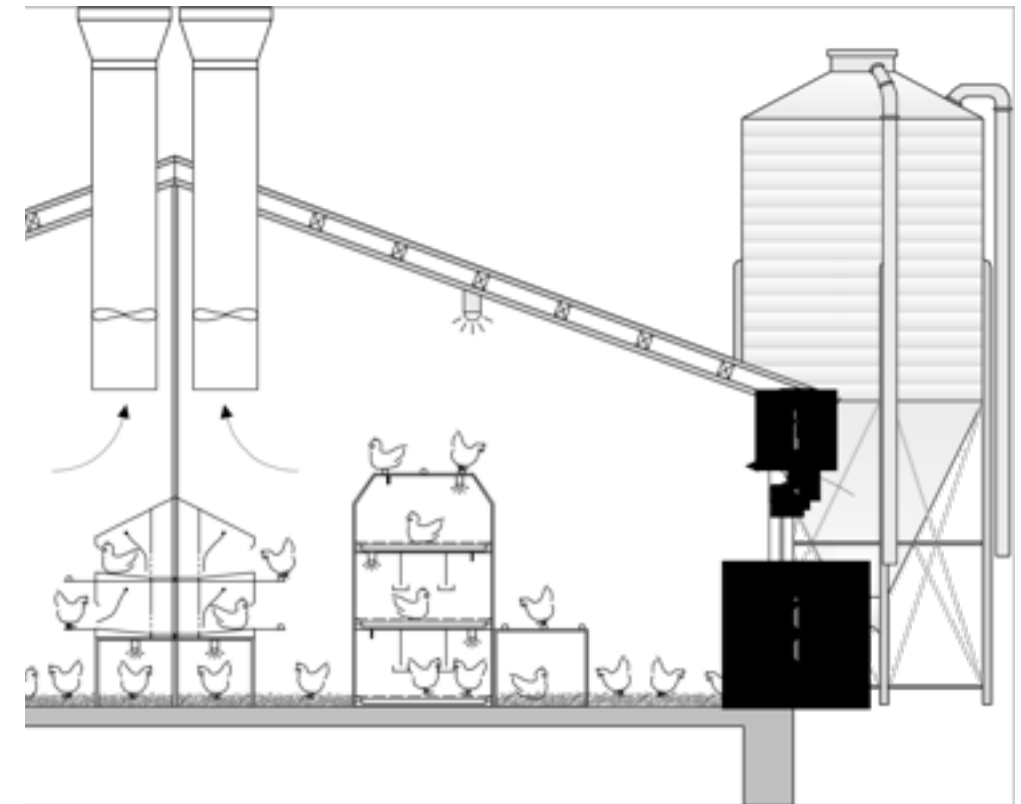
Welfare[®]
Quality



Enriched cage design









Feather and vent pecking



Animal Welfare has everything to do with **humans**, the empathy, relationship and commitment individuals bring to bear when we have a **duty of care**.

Substantial **knowledge**, **skill** and **experience** is required to ensure humane treatment of animals at any level of production.

Moral / Ethical concerns

Productivity / Profit

Carcass / Meat quality

Legal framework

What retail markets expect

Moral / Ethical concerns

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What retail markets expect

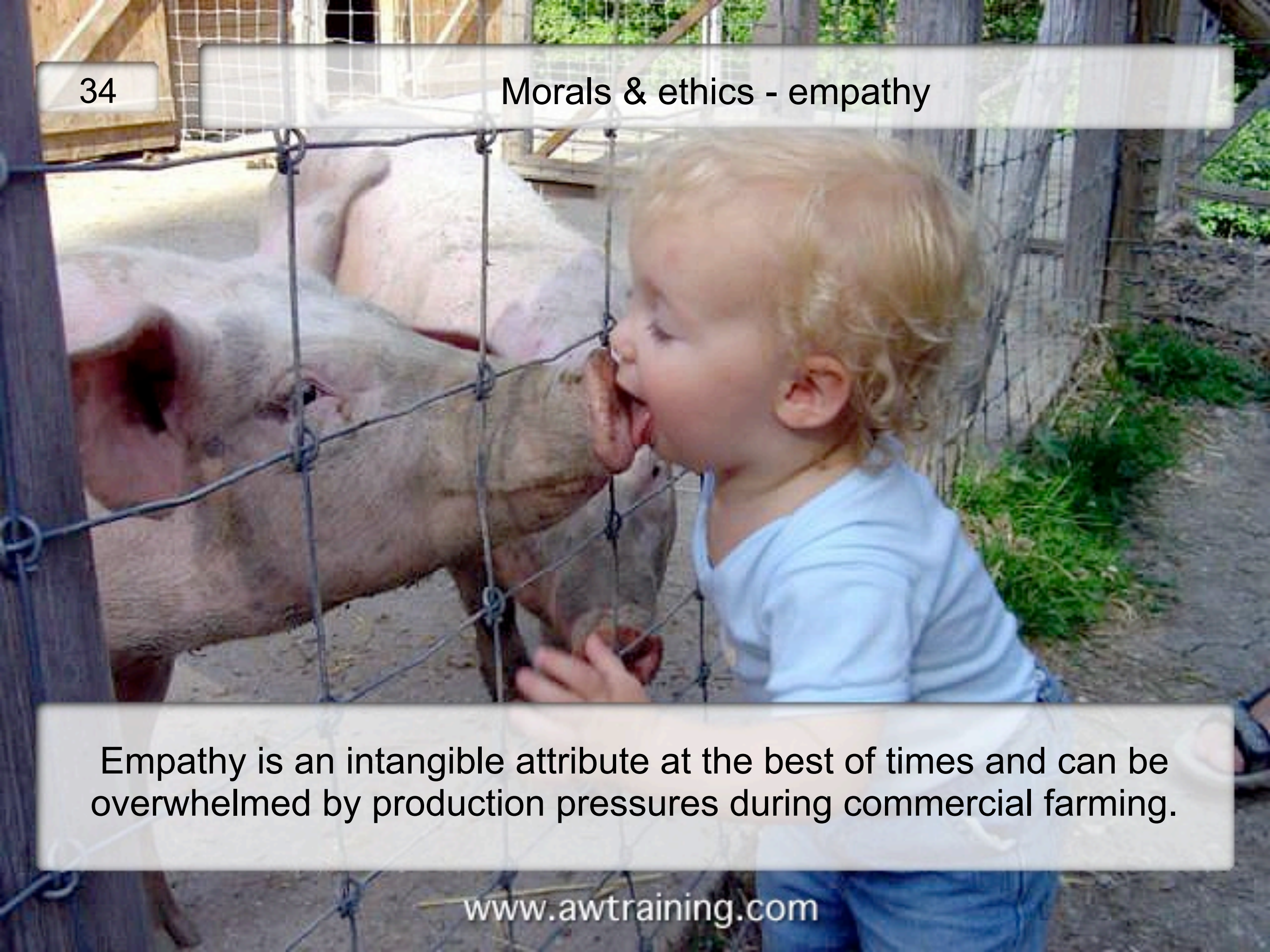
Moral / Ethical concerns

Productivity / Profit

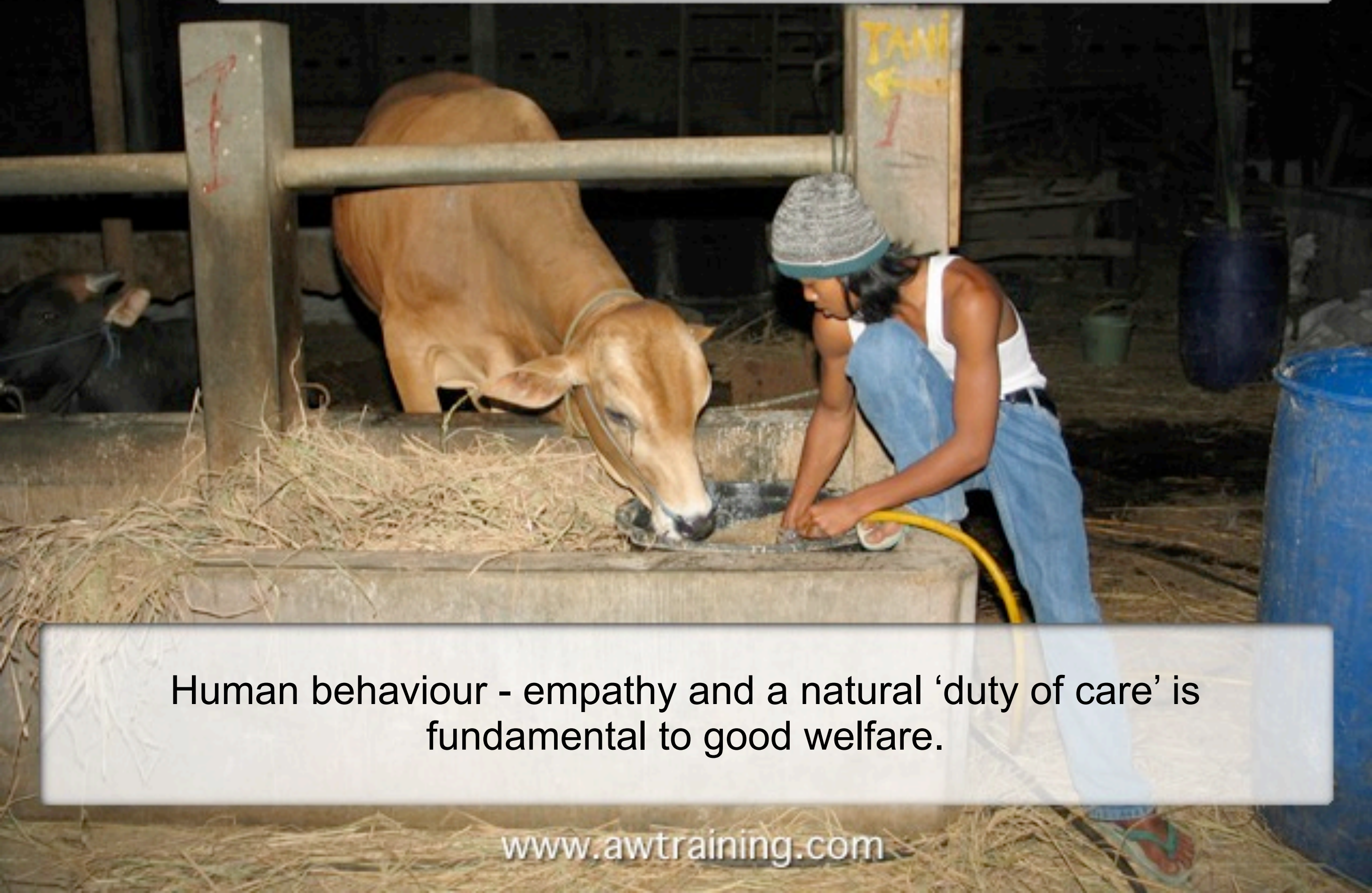
Carcass / Meat quality

Legal framework

What retail markets expect



Empathy is an intangible attribute at the best of times and can be overwhelmed by production pressures during commercial farming.

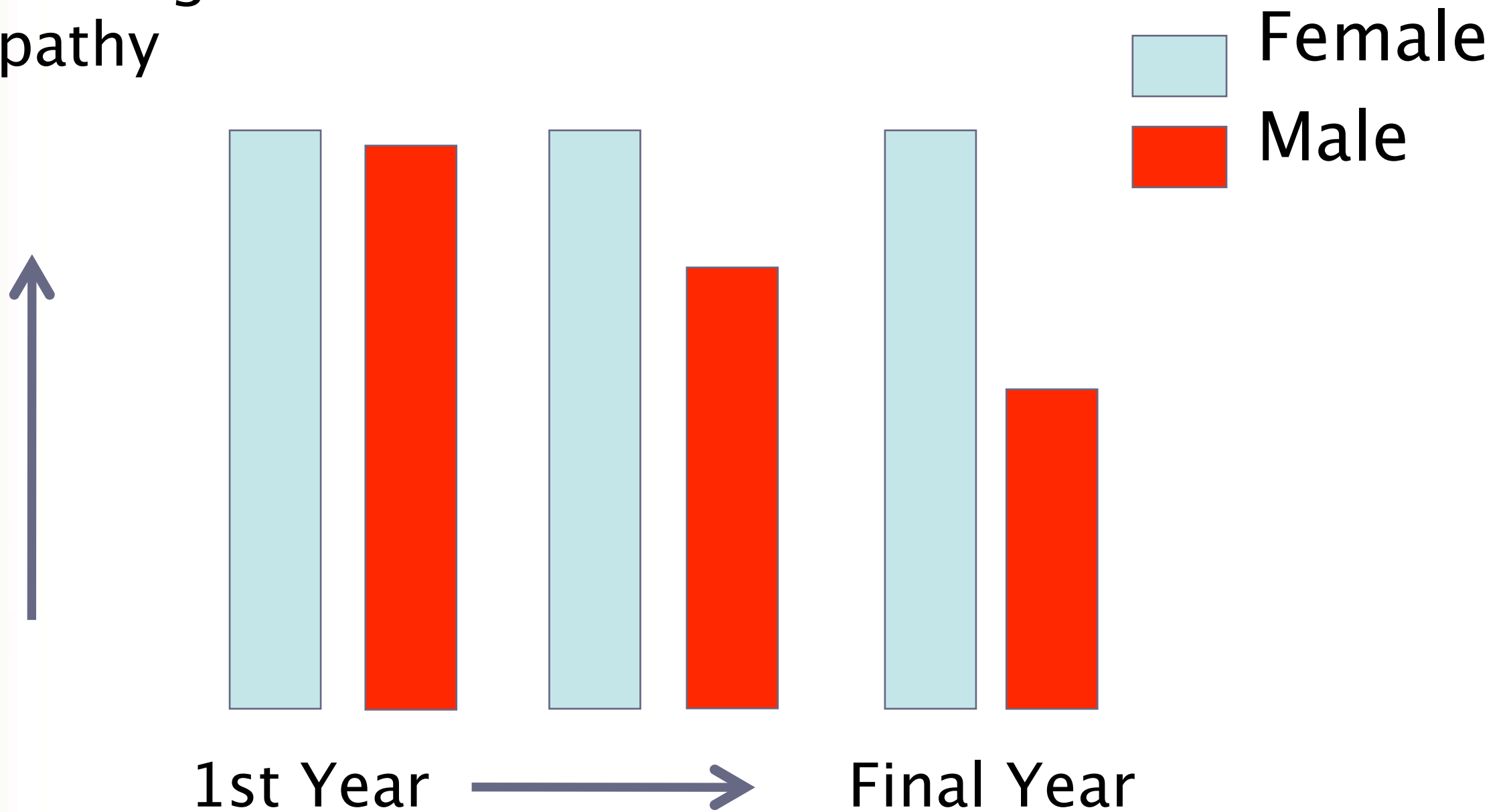


Human behaviour - empathy and a natural 'duty of care' is fundamental to good welfare.

Attitudes in vet students

Welfare[®]
Quality

Increasing
empathy



(Paul & Podberscek 2000)

Book of Genesis:

Man has dominion over every living thing

Aristotle:

Natural hierarchy, with man at pinnacle,
above the rest of creation

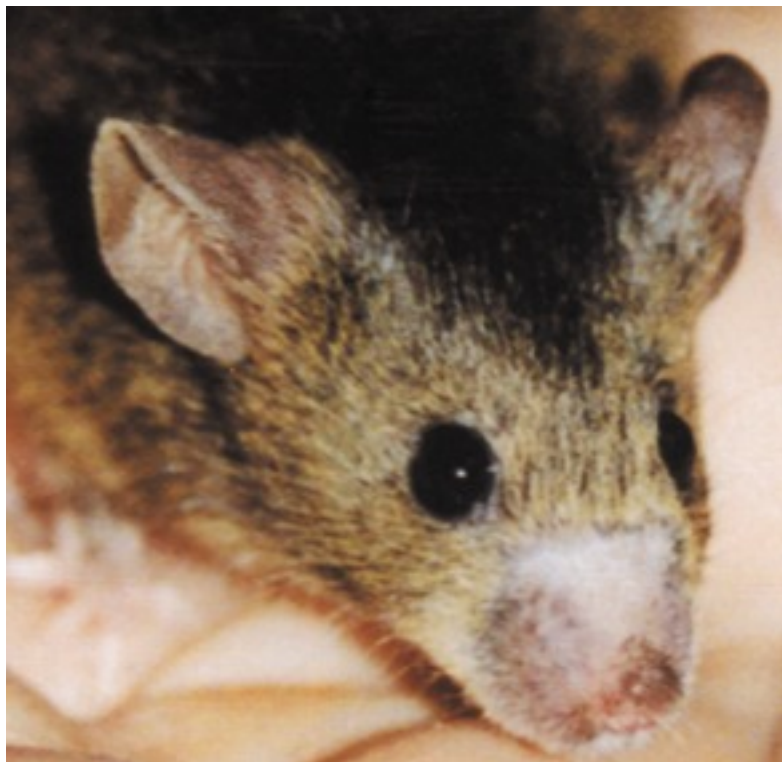
Thomas Aquinas:

Only humans possess rational souls; all
animals were created in order to serve
humanity

Animals have no moral status

We have no duties towards them

For example, it is OK to beat the dog for fun



...do 'pests' have any
moral status?

Animals have 'instrumental' value

We have indirect duties to them

For example, don't beat the dog as you might
upset its owner



...do experimental animals have
only instrumental value to
humans?

Animals have 'intrinsic' value

We have direct duties to them

For example, don't beat the dog as it would hurt it
and this matters!



...do pets, like other family
members, have
intrinsic value?

Behavioural studies in lab and field



...painful behaviour?

Some of the interested parties

Welfare[®]
Quality



Surgery

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- Some points to consider:

Will the animal be in an unacceptable amount of pain?

What is the long-term prospect following the surgery?

Does the vet have sufficient expertise for the procedure?

What are the interests of the parties concerned?





Who decides
what is
necessary /
unnecessary ?

- An owner may decide, sometimes with advise from a vet, that that his animal has a poor life quality, or that he cannot provide for the animals needs

Milestones: the EC Treaty's Protocol on Protection and Welfare of Animals



- It recognises animals as sentient beings and requires that full regard is paid to this in formulating and implementing the Community's policies, while respecting the legislative or administrative provisions and customs of the Member States relating in particular to religious rites, cultural traditions and regional heritage.



Milestones: the OIE guiding principles



- There is a critical relationship between animal health and animal welfare
- That the use of animals carries with it an ethical responsibility to ensure the welfare of such animals to the greatest extent practicable.
- That improvements in farm AW can often improve productivity and food safety, and hence lead to economic benefits.

Mixed feelings in the 'audience'





What do people want to know about the products they use?

Market choices for consumers

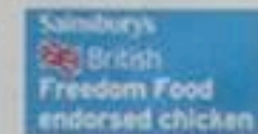


Improving your choice in chicken

Once, the only choice when buying chicken was size and cut. Now, with new and improved welfare, there's so much on offer

Sainsbury's Freedom Food endorsed chicken

New to Sainsbury's, these are slower-growing, traditional breeds, barn-reared on British farms. They're inspected by Freedom Food, in accordance with strict welfare standards devised and monitored by the RSPCA. Also available in corn-fed varieties.



Taste the difference free-range chicken

These chickens are reared on British farms in a healthy environment and are free to roam in grassy, shaded paddocks during the day. The farms are inspected by Freedom Food, in accordance with strict welfare standards devised and monitored by the RSPCA.

Sainsbury's SO organic chicken

Reared on British organic farms in the UK that adhere to strict Soil Association standards, these chickens roam freely by day in organic pastures, feeding naturally, after each crop has been harvested. This results in a highly textured bird with a fantastic flavour.



Sainsbury's
fresh British chicken

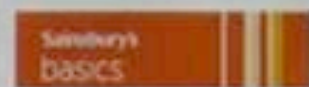


Sainsbury's fresh British chicken

Our standard range of chicken is only sourced from quality-assured farms in the UK and packed to British Assured Production Standards under the Red Tractor scheme. Each chicken can be traced to its farm of source.

Sainsbury's basics chicken

Our great-value basics range of chicken has been sourced from British farms that meet the standards set by the Red Tractor scheme. This range offers fantastic value with no compromise on quality - sizes and shapes may vary, though.



Retailer decision making

Welfare
Quality[®]

YOUR M&STRAK

Views

Data I/O

Reporting

Tools

Admin

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Select a node to display details

[-] Marks and Spencer

[-] Protein

[-] Beef

[-] Dairy

[-] Cheese 0.0 Miles

[-] Milk 0.0 Miles

[-] Church Farm 0.0 Miles

[-] Harland Farm 0.0 Miles

[-] West Dale Dairies 0.0 Miles

[-] West Moor Farm 0.0 Miles

[-] Fish

[-] Game

[-] Lamb

[-] Sharps Meat (Processing)

[-] Sharps Meat Slaughter) 0.0 Miles

[-] High Moor Farm 3.3 Miles

[-] Hillside Farm 0.9 Miles

[-] Low End Farm 2.4 Miles

[-] Low Fell 10.4 Miles

[-] Meadow Farm 1.6 Miles

[-] Poplar Farm 4.9 Miles

[-] Riverside Farm 14.2 Miles

[-] Stockland Farm 5.7 Miles

[-] West Farm 4.1 Miles

[-] Windy Ridge 6.5 Miles

Company:

Davis Brothers

Type:

Grower

H/O Location:

Blackpool

Phone:

Fax:

Website:

Emergency:

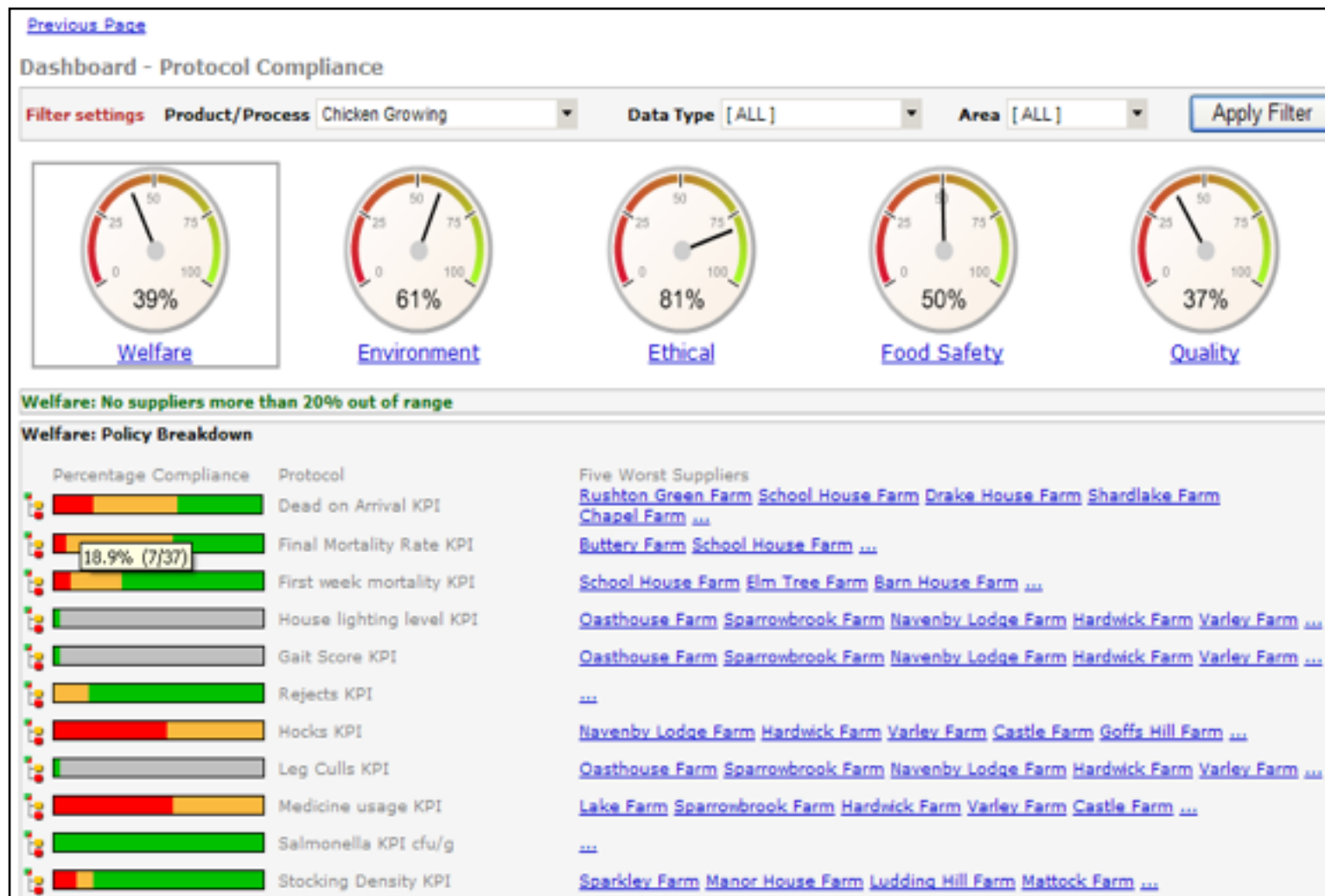
Audit Filter

☒ Current ☐ Most recent 4

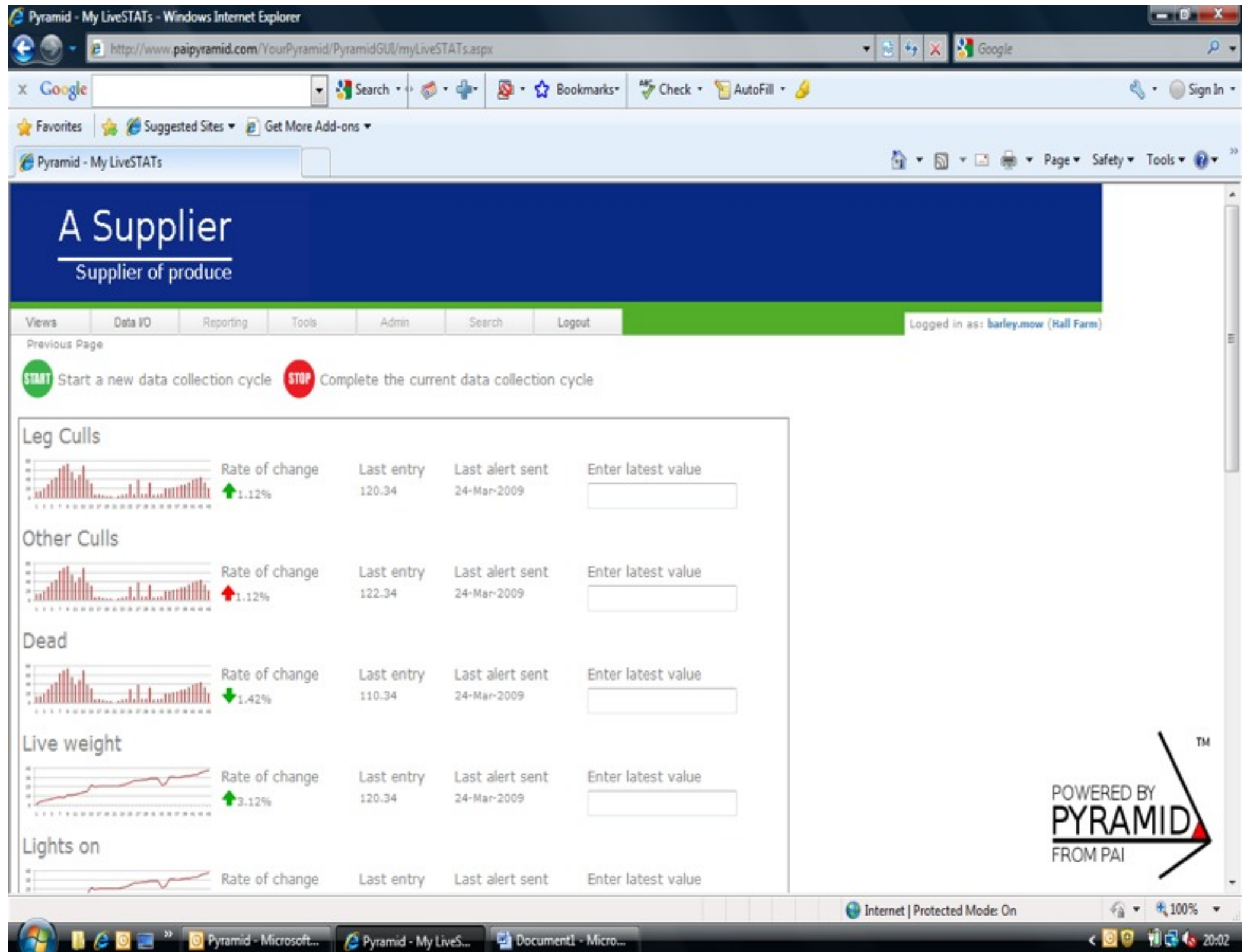
IMAGE UNAVAILABLE

Davis Brothers Blackpool

Site Name	Location	Site Type			
[-] Railside Farm	Blackpool	Production			
[-] Sheep		Finishing			
<div>Date</div>	<div>Protocol Group</div>	<div>Protocol</div>	<div>Value</div>	<div>Repeats</div>	<div>Ex</div>
01/08/2007	Self-reported KPI	Age at castration (wks)	10.2	2	1
01/08/2007	Self-reported KPI	Age at slaughter (mnts)	7.9	0	1
01/08/2007	Self-reported KPI	Age at tail docking (wks)	11.1	0	1
01/08/2007	Self-reported KPI	Age at weaning (wks)	10.2	0	1
01/08/2007	Self-reported KPI	Condition of ewe at service	4	0	1
01/08/2007	Self-reported KPI	Housed stocking density post-lambing m2/ewe	2.9	0	1
01/08/2007	Self-reported KPI	Housed stocking density pre-lambing m2/ewe	0.9	2	1
01/08/2007	Self-reported KPI	No of lambs born per 100 ewes	129	2	1
01/08/2007	Self-reported KPI	No of lambs slaughtered per 100 ewes	129	0	1



Producer View - for retailer



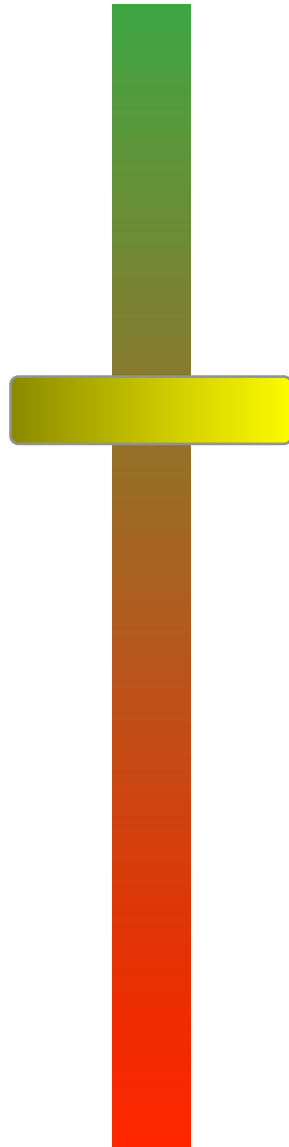
How do you think the actual welfare of farmed animal is in Europe?



How are you feeling now?

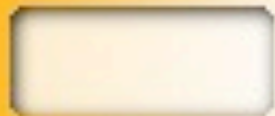
Welfare[®]
Quality

Good



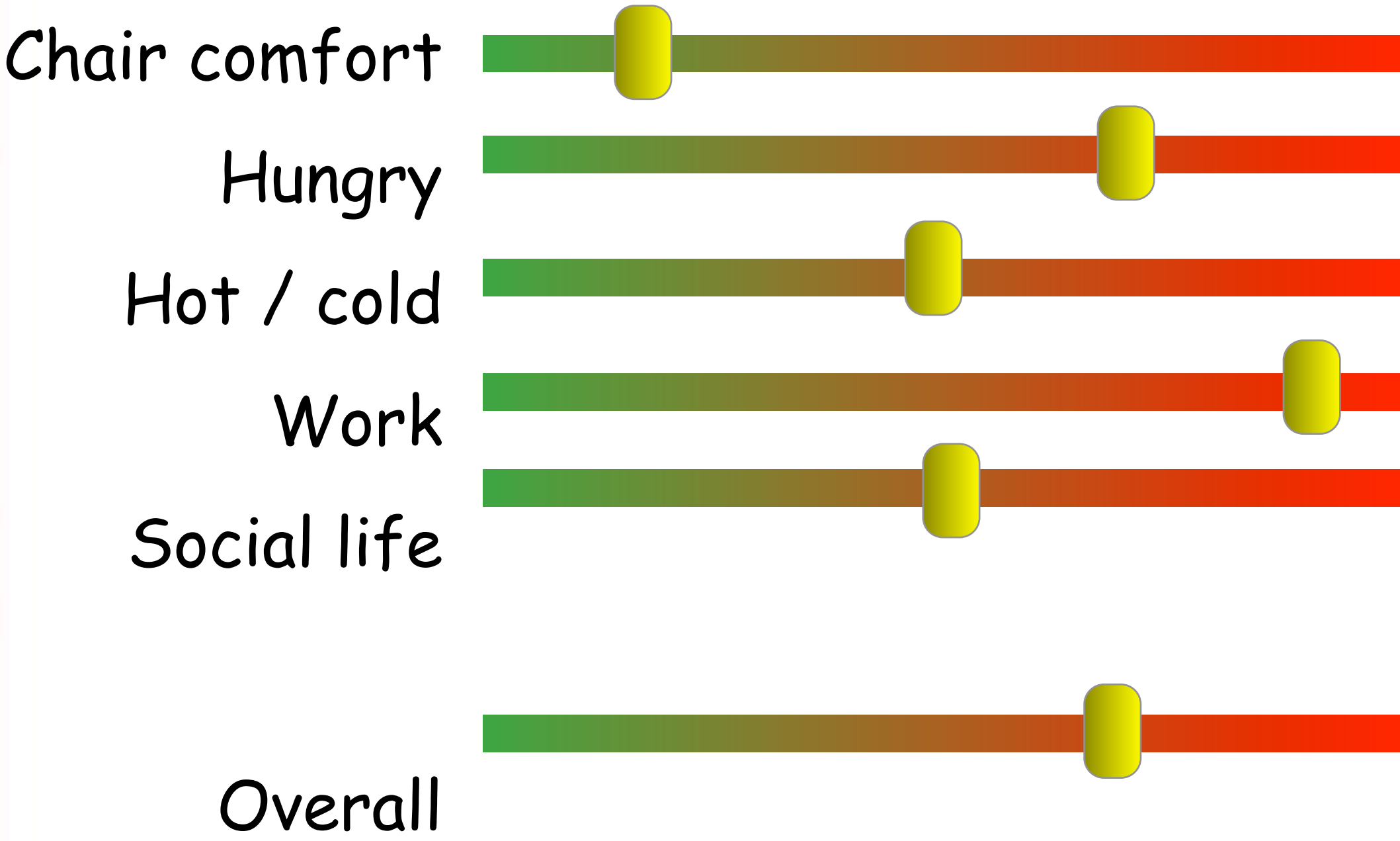
Poor

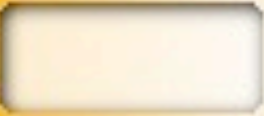
- Fantastic
- Pretty good
- Reasonable
- OK
- Not good
- Miserable
- Terrible



Why?

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Quality





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Animal Welfare Criteria

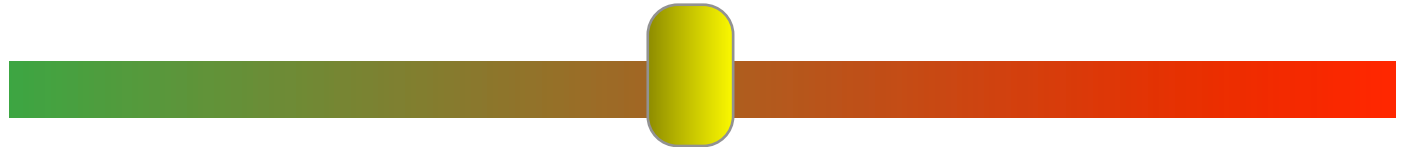
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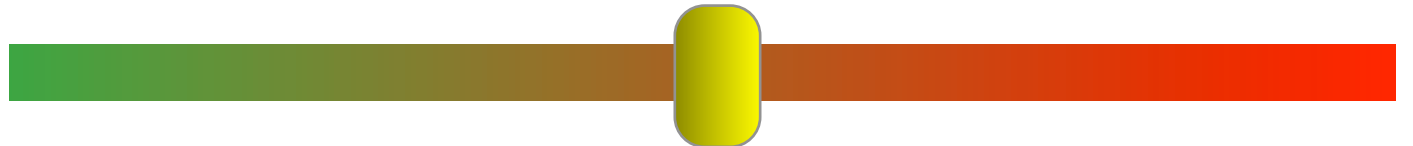
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The five freedoms

Welfare[®]
Quality

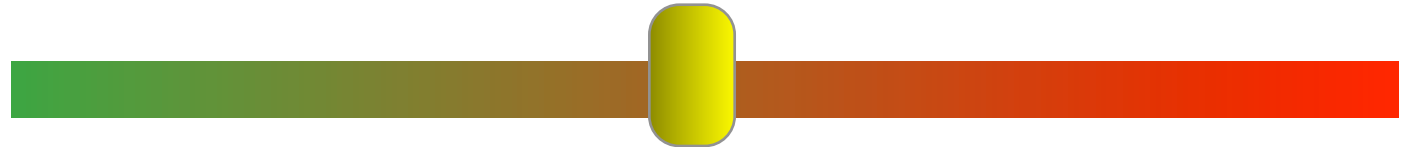
Hunger / Thirst



Pain / Injury / Disease



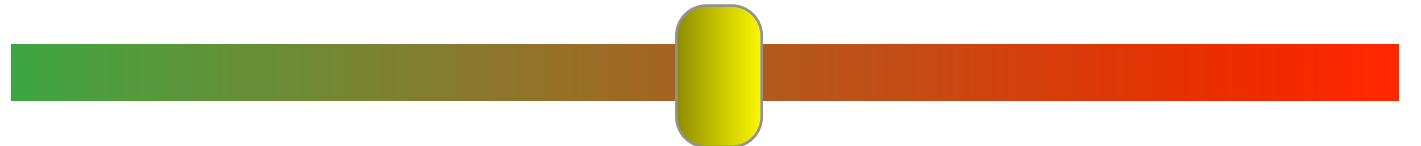
Discomfort



Fear / Distress

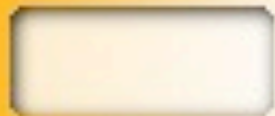


Normal behaviour



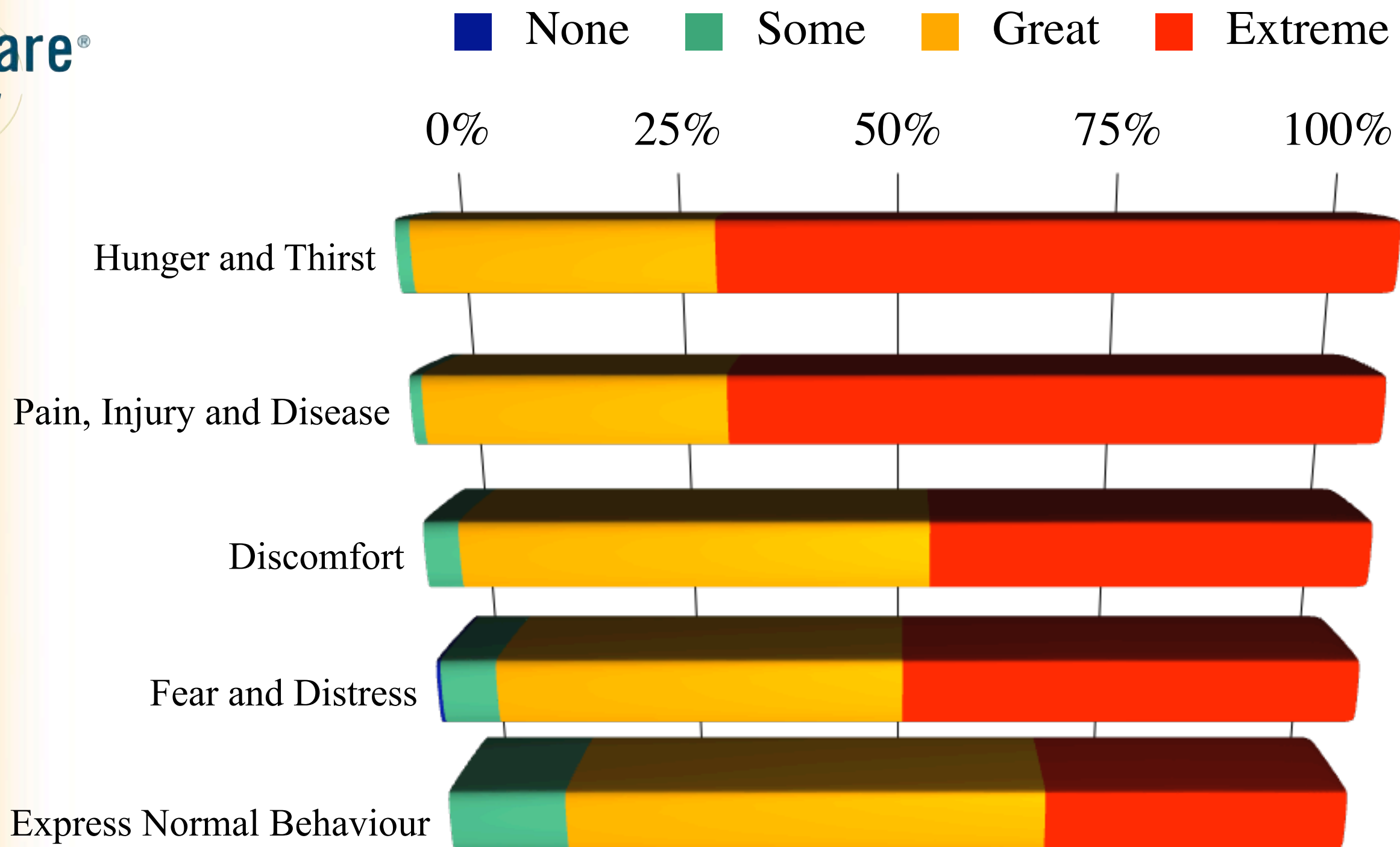
Overall





How important are 5 freedoms? - 344 farmers

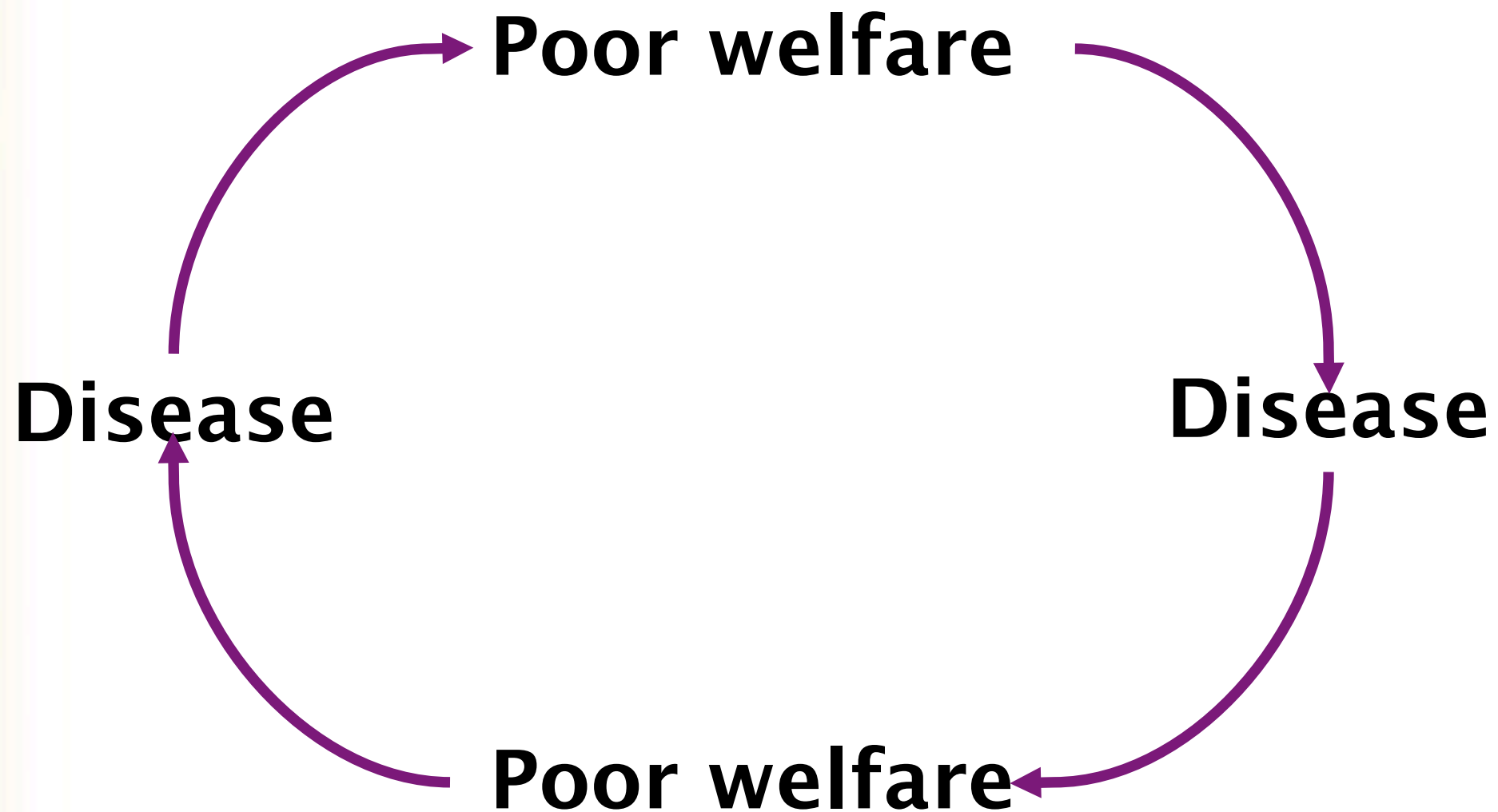
Welfare[®]
Quality



- What to measure? - welfare, science, and society

Disease and Welfare

Welfare[®]
Quality





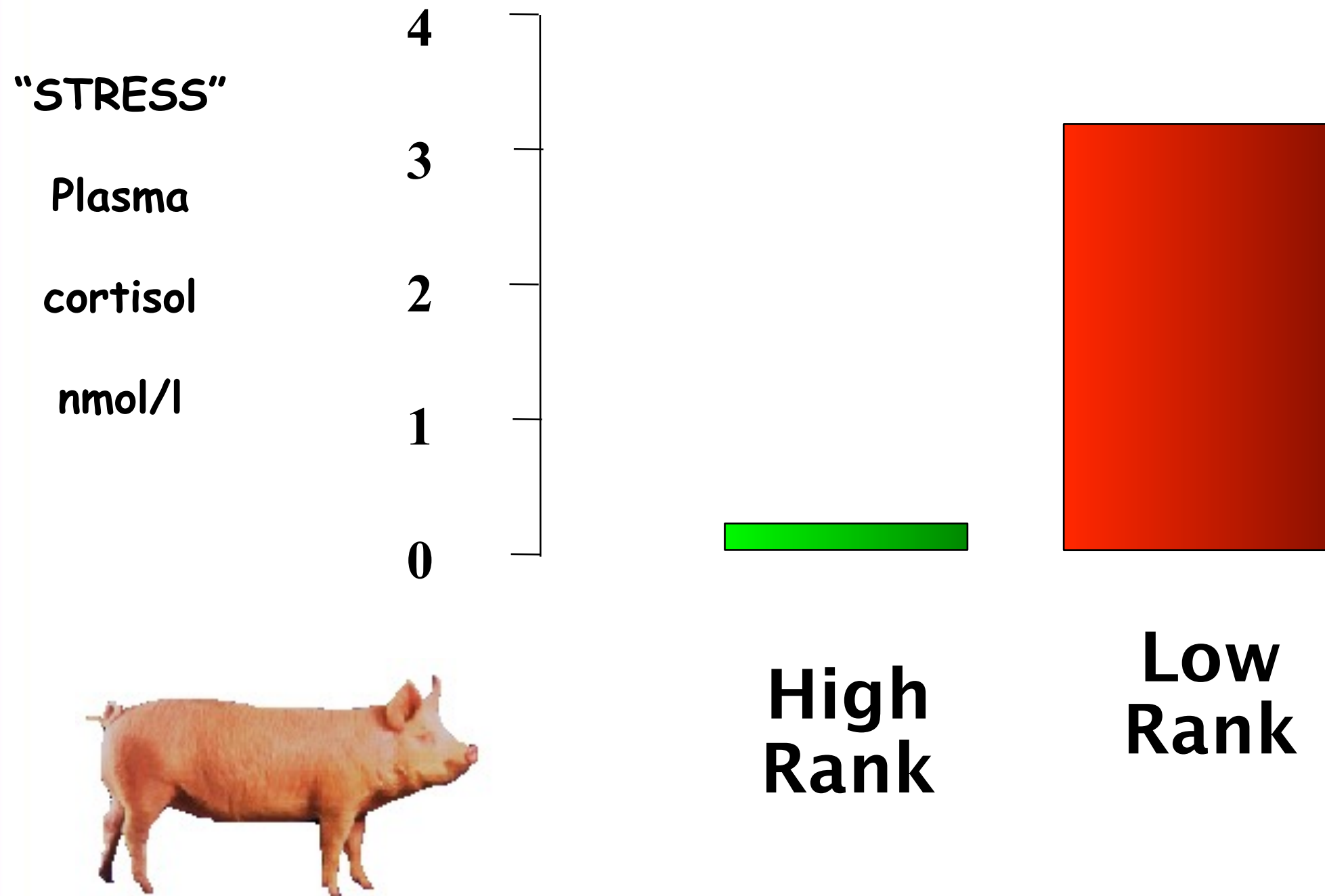
Comfort and discomfort



- Depriving access to a comfortable lying area may have more significant welfare implications than simply limiting an animal's choices
- Long term discomfort may cause limb lesions (e.g. pig bursitis) or lameness (e.g. dairy cattle)

Persistent fear and anxiety: stress

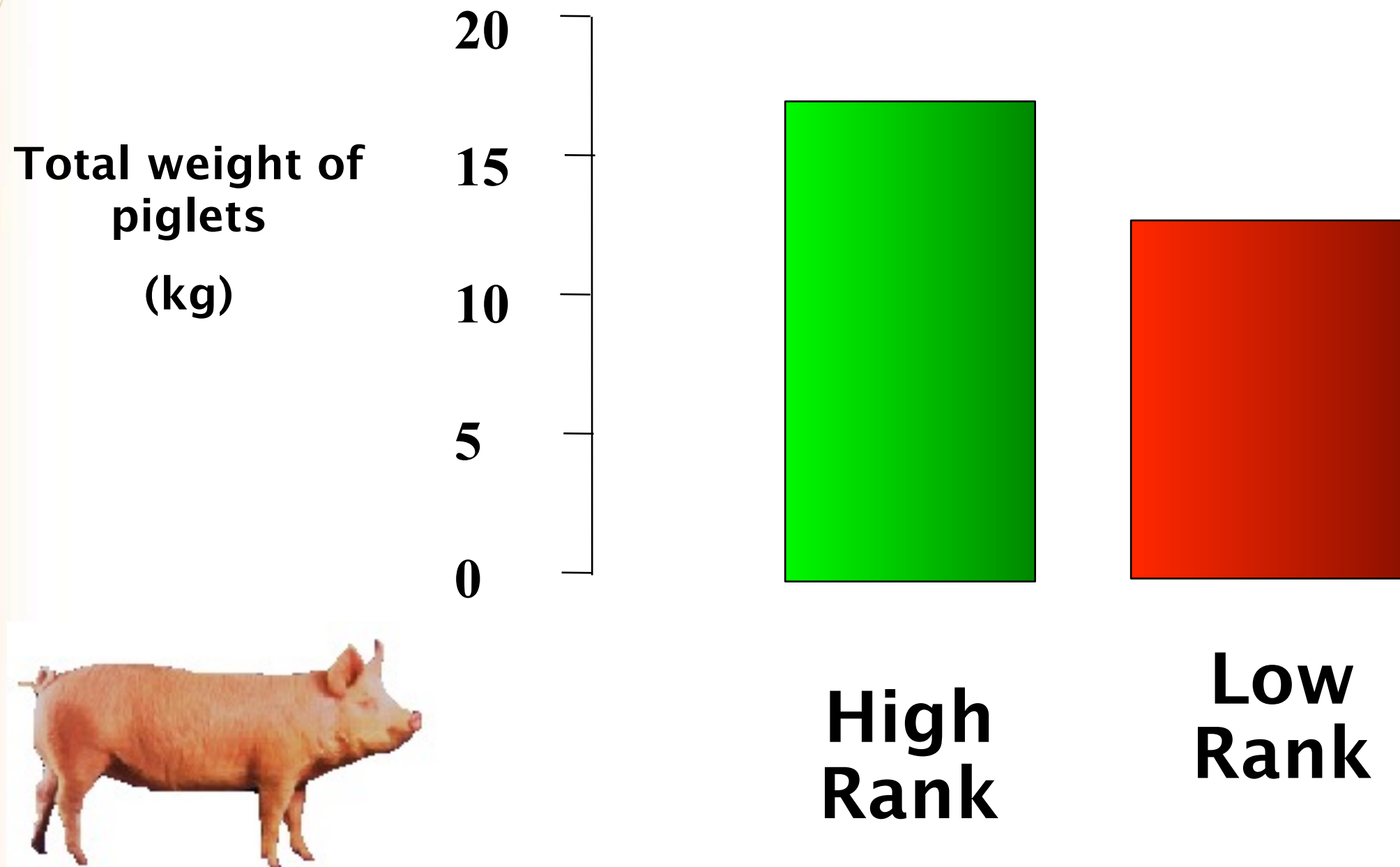
Welfare[®]
Quality



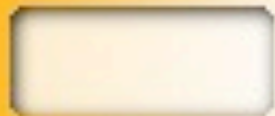
Mendl et al, 1992

Persistent fear and anxiety: production

**Welfare[®]
Quality**



Mendl et al, 1992



Pig interaction with stockman

Welfare[®]
Quality

Time to
interact (s)

0 50 100 150

-ve



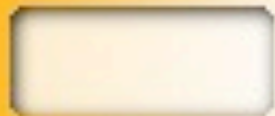
none



+ve



(Gonyou et al., 1986)



Pig growth rate

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Quality**

**Growth rate (g/
day)**

800

850

900

-ve



none

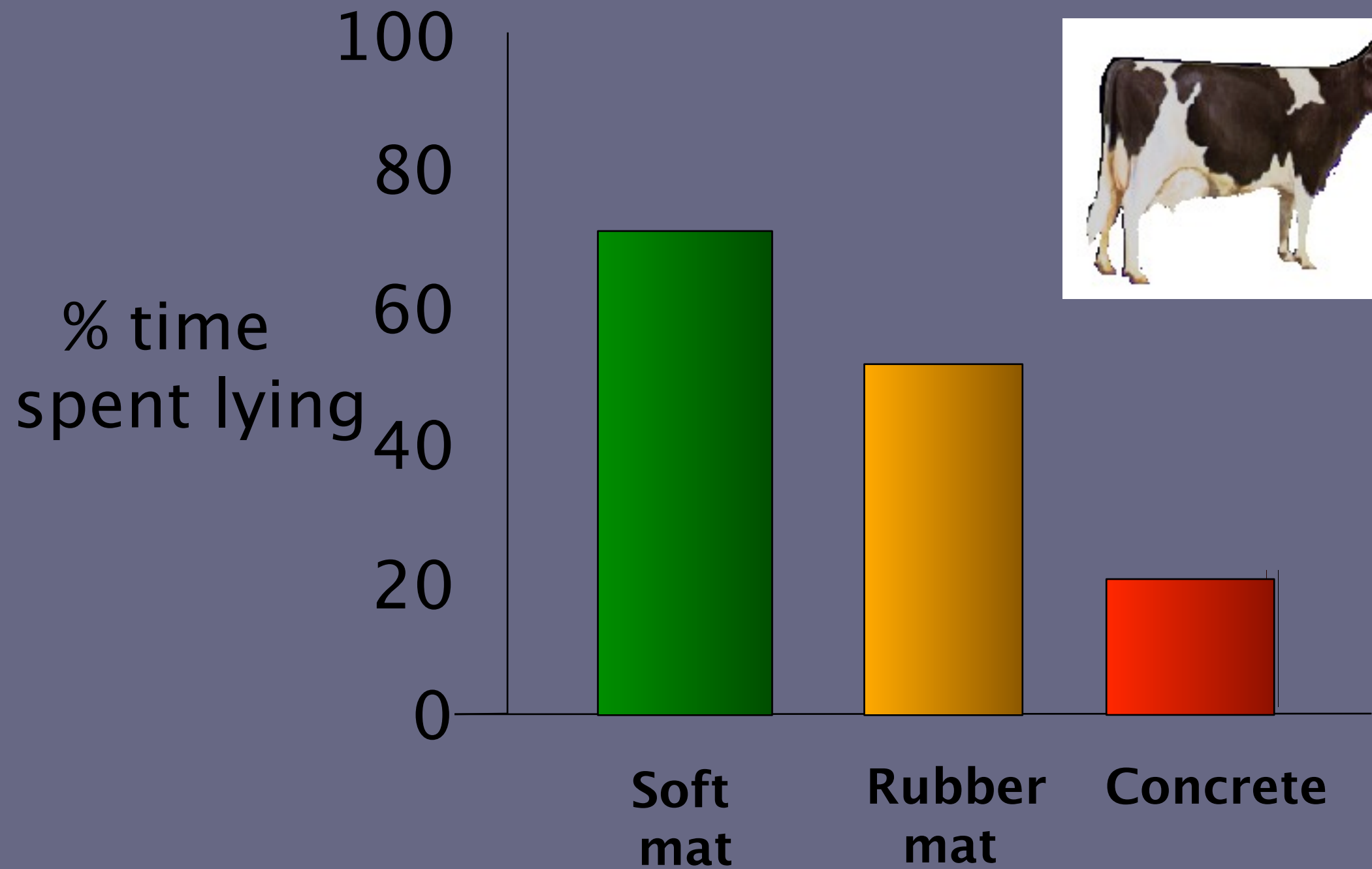


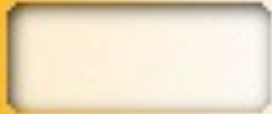
+ve



(Gonyou et al., 1986)

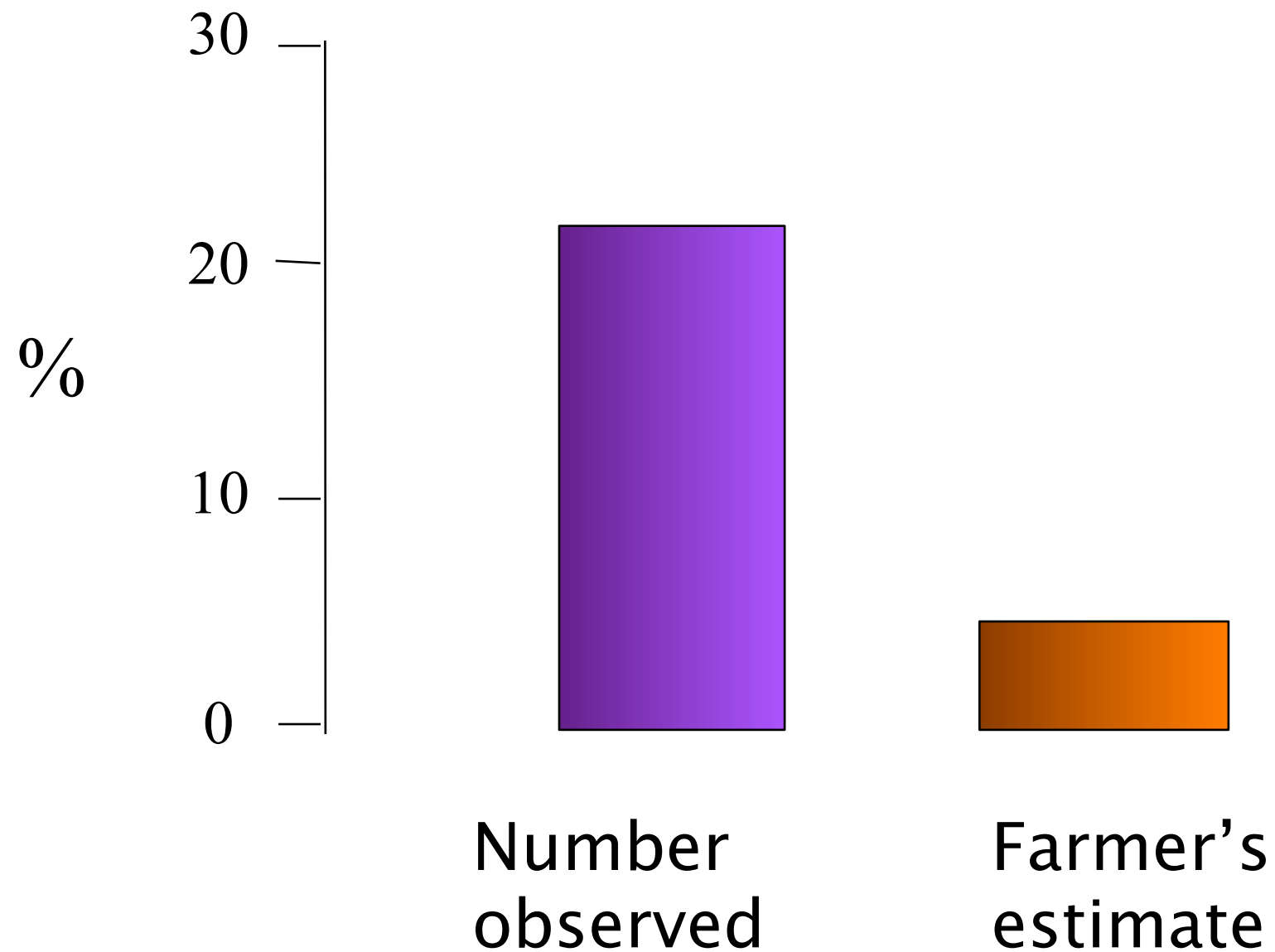
'Surface' and time spent lying down





Perception of dairy cattle lameness

Welfare[®]
Quality

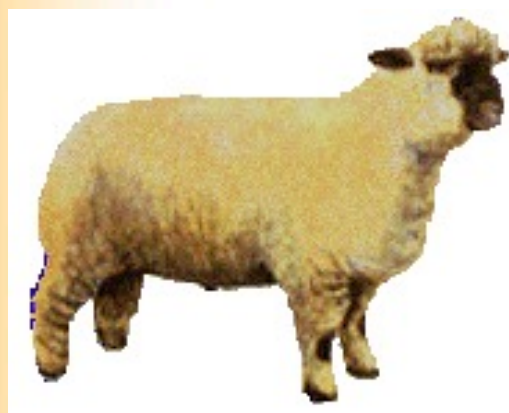


Whay et al, (2001)

Number affected

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At any one time, how many animals are lame ?



15% *



22% *



26% *

* UK figures

Lameness management



- Perceived
Does the farmer know how many lame cows he has?
- Evaluated
Does the farmer know his main cause of lameness?
- Acted
How quickly does he treat individuals?

Behavioural indicators - the 'normal' animal



- Alertness
- Curiosity
- Range of activities
- Interaction with other members of the herd/flock
- Interaction with humans/Aversion to humans
- Play

The experienced stockman

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What is 'normal'?

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'Normal' depends upon species, breed and previous contact with humans. Dairy cows who are frequently handled should not be 'afraid' of people.



Stereotypies and other behavioural abnormalities

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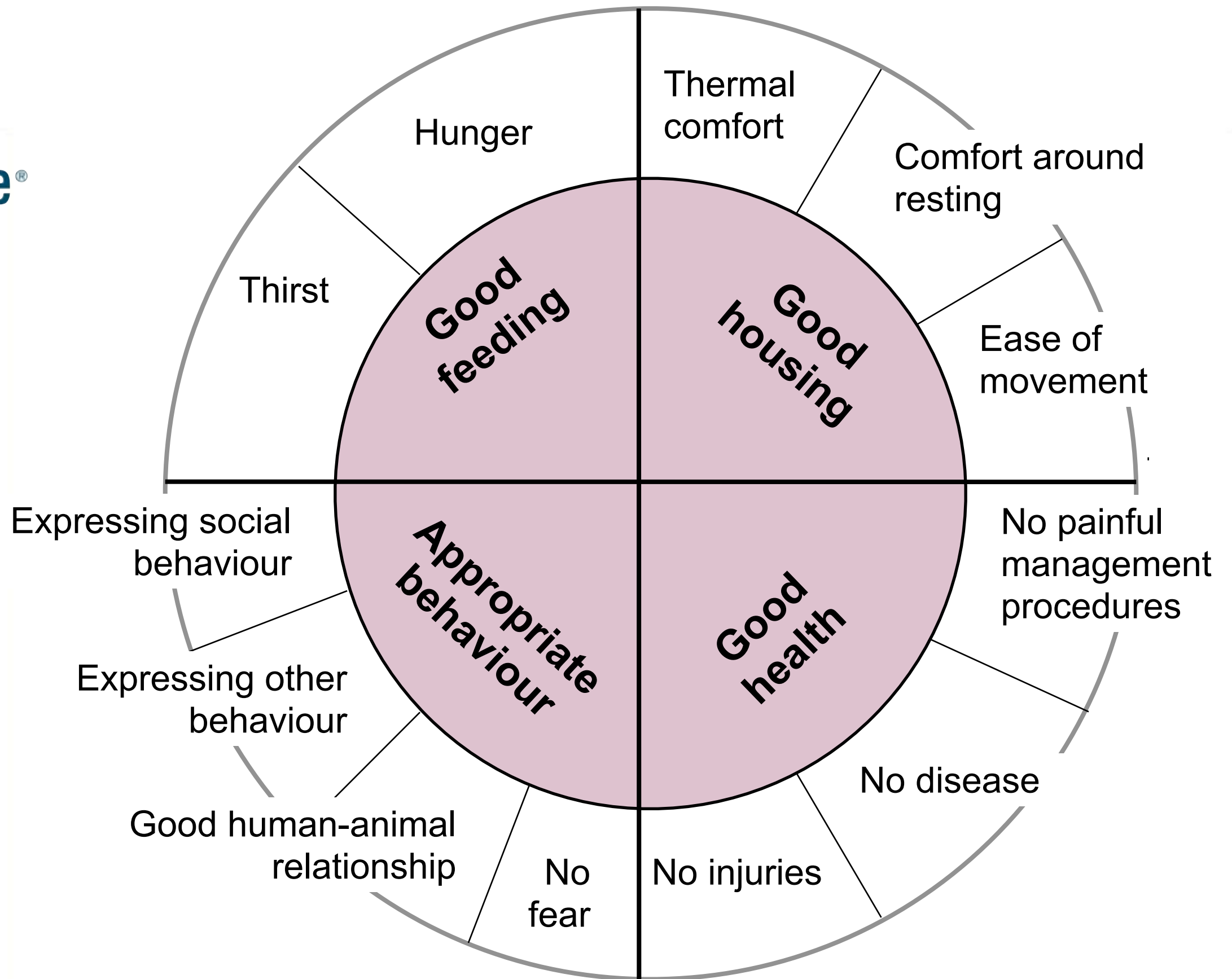


- The Five Freedoms as a starting point?

Five Freedoms & welfare inputs / factors



- Freedom from **hunger & thirst** by ready access to fresh water and a diet to maintain full health and vigour
- Freedom from **discomfort** by providing an appropriate environment including shelter and a comfortable resting area
- Freedom from **pain, injury and disease** by prevention or rapid diagnosis and treatment
- Freedom to express **normal behaviour** by providing sufficient space, proper facilities and company of the animal's own kind
- Freedom from **fear and distress** by ensuring conditions and treatment which avoid mental suffering



Four principles and 12 criteria

Principles

Criteria

Good feeding

- 1 Absence of prolonged hunger
- 2 Absence of prolonged thirst

Good housing

- 3 Comfort around resting
- 4 Thermal comfort
- 5 Ease of movement

Good health

- 6 Absence of injuries
- 7 Absence of diseases
- 8 Absence of pain due to management procedures

Appropriate behaviour

- 9 Expression of social behaviours
- 10 Expression of other behaviours
- 11 Good Human-Animal relationship
- 12 Absence of general fear

Aims of a welfare assessment

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Producers

Animals
on farms
during transport
at slaughter

Assessors

Animal based measures:
assessment
of animal welfare

Environment based measures:
identification
of causes of poor welfare

Advisors

Remedial solutions proposed

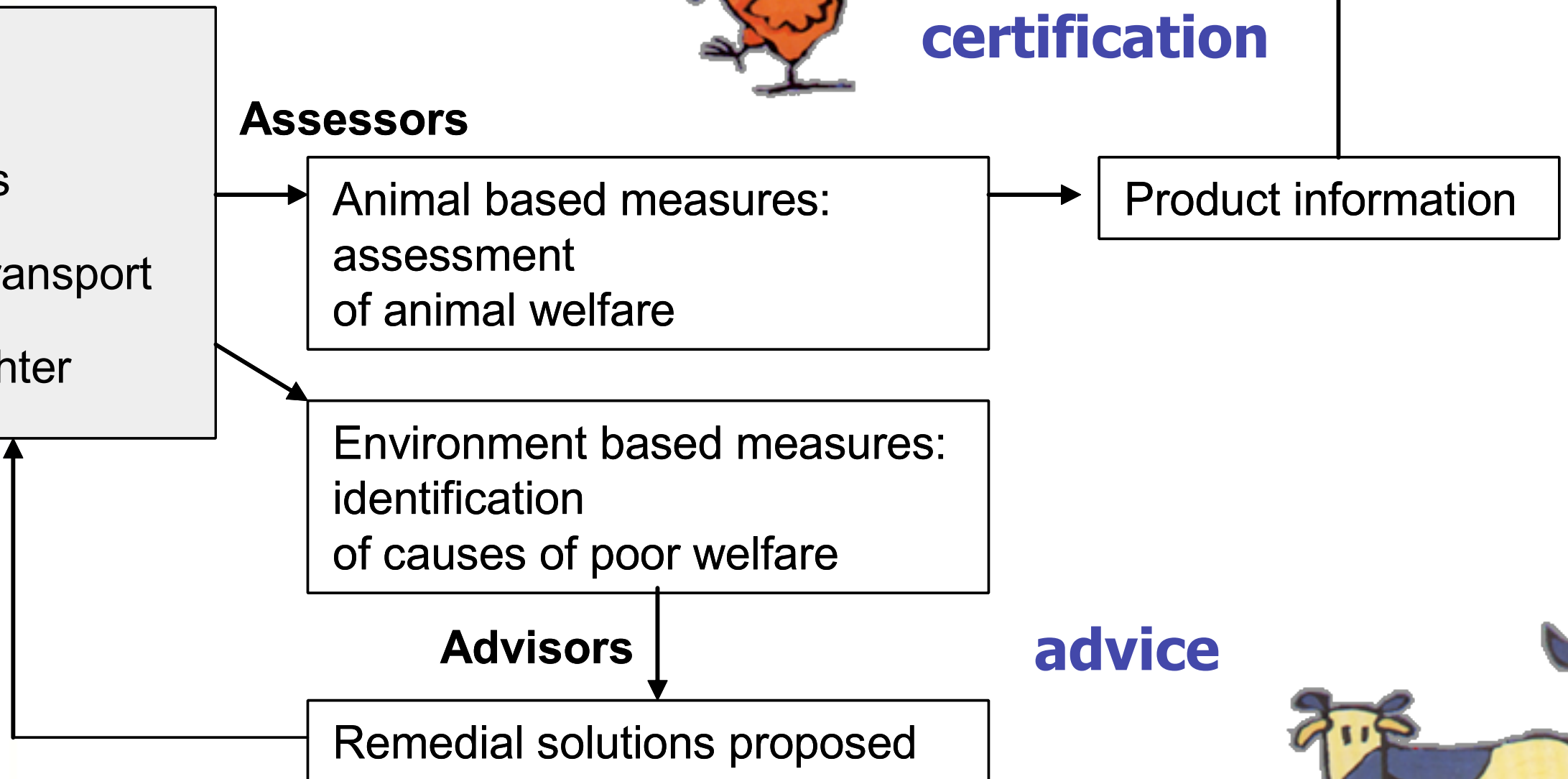
certification

Consumers

Retailers

Product information

advice



Comfort around resting

Lying behaviour

Welfare[®] Lying down sequence Quality

Normal when: <6.3 s, no collisions against bars

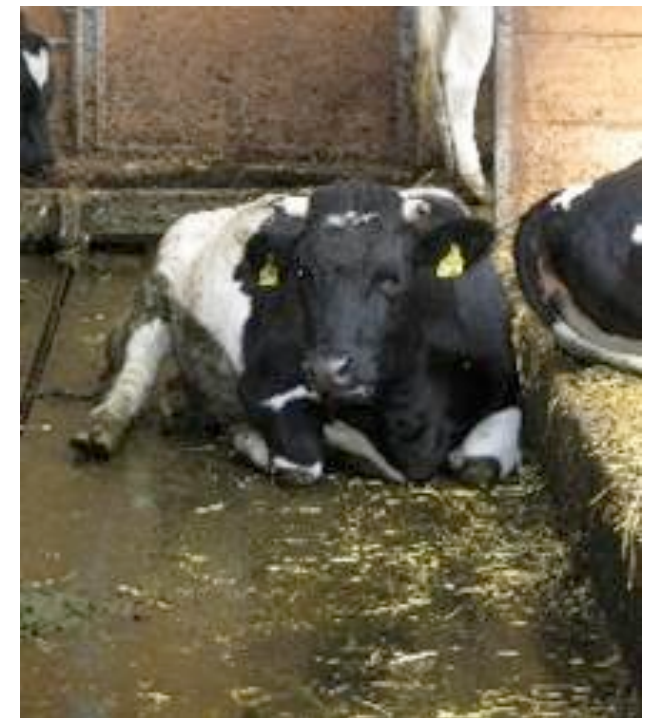


Lying place




Cows should lie on the lying area

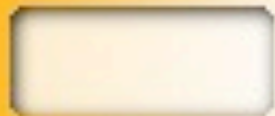


Hind quarter outside



Whole body outside

Score		Description
0		Not lame Timing of steps and weight-bearing equal on all four feet.
2		Lame Irregular foot fall – uneven temporal rhythm between hoof-beats, weight not borne for equal time on each of the four feet. This creates a definite limp and the affected limb is immediately obvious. A favoured limb will move more quickly than the lame limb.
3		Severely lame Strong reluctance to bear weight on one limb, or more than one limb affected.



Injuries *Skin alterations*

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Mild lesions



hairpatches



wound

Severe lesions

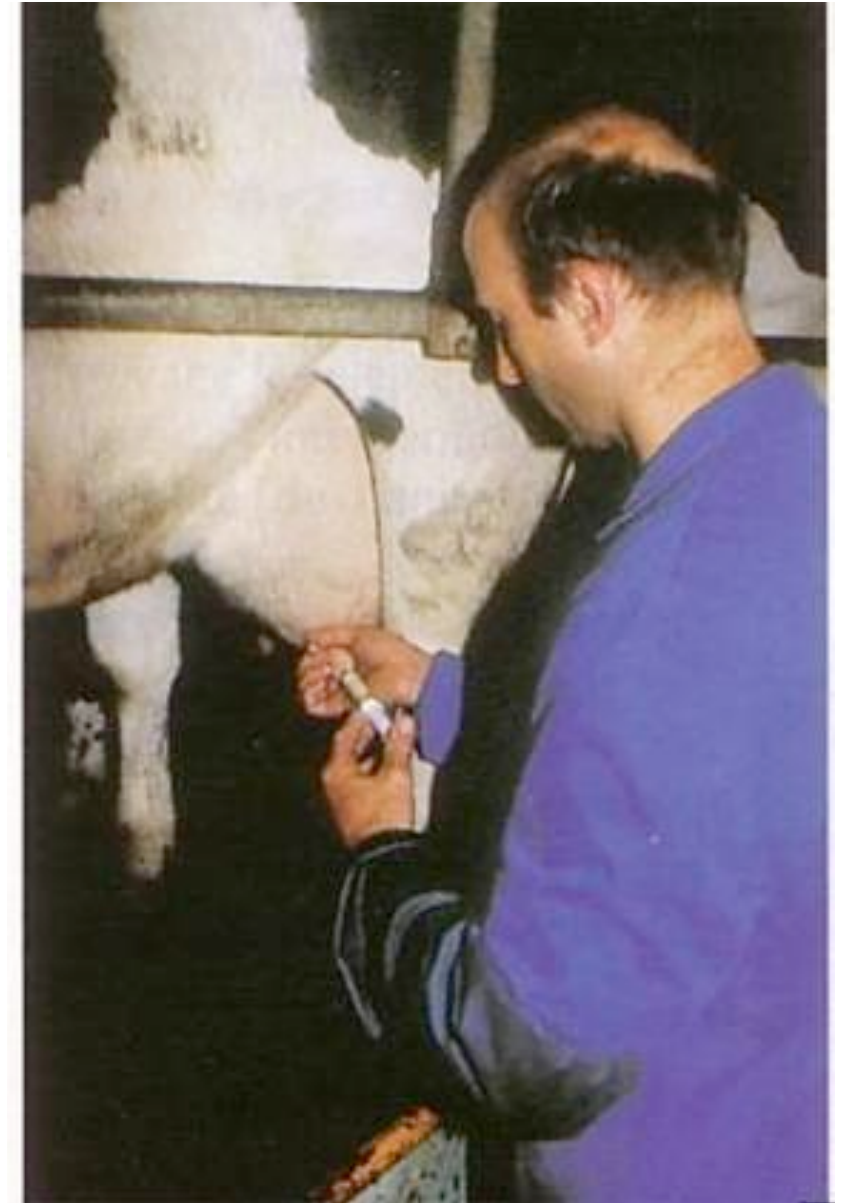


swelling

Diseases



- Symptoms of main diseases checked during the visit
 - nasal discharge, Ocular discharge, sneezing
 - coughing, increased respiratory rate
 - diarrhoea
 - vulvar discharge (metritis)
- Occurrence of diseases from farm records
 - mastitis
 - dystocia
 - downer cows
 - mortality



Social behaviour *Aggressive encounters*

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Quality

horning



fighting





Young animals born into a 'hard' environment



Animals can experience significant restriction for periods of their lives



Loading densities and transport conditions



Pig transport conditions, exhaustion and stress can cause welfare and quality issues.

In separate parts

1= No skin damage

2= Slight skin damage

3= Skin damage affecting quality

4= Extreme skin damage with possible rejection of tissue

(Barton-Gade et al., 1995)



- Source by type of damage and location



Fighting



Poor handling or poor design of facilities



fear during unloading



Indicators:

- Reluctance to move
- Backward movement
- Turning back
- Vocalization

Inter-observer variability of fear during unloading

- Video tape records:
 - To give the reference score
 - To train and select observers
 - To assess inter-observer variability
- Direct observation
 - To assess inter-observer variability on real conditions
 - In 4 commercial abattoirs (2 high capacity and 2 low capacity)
 - 6 observers



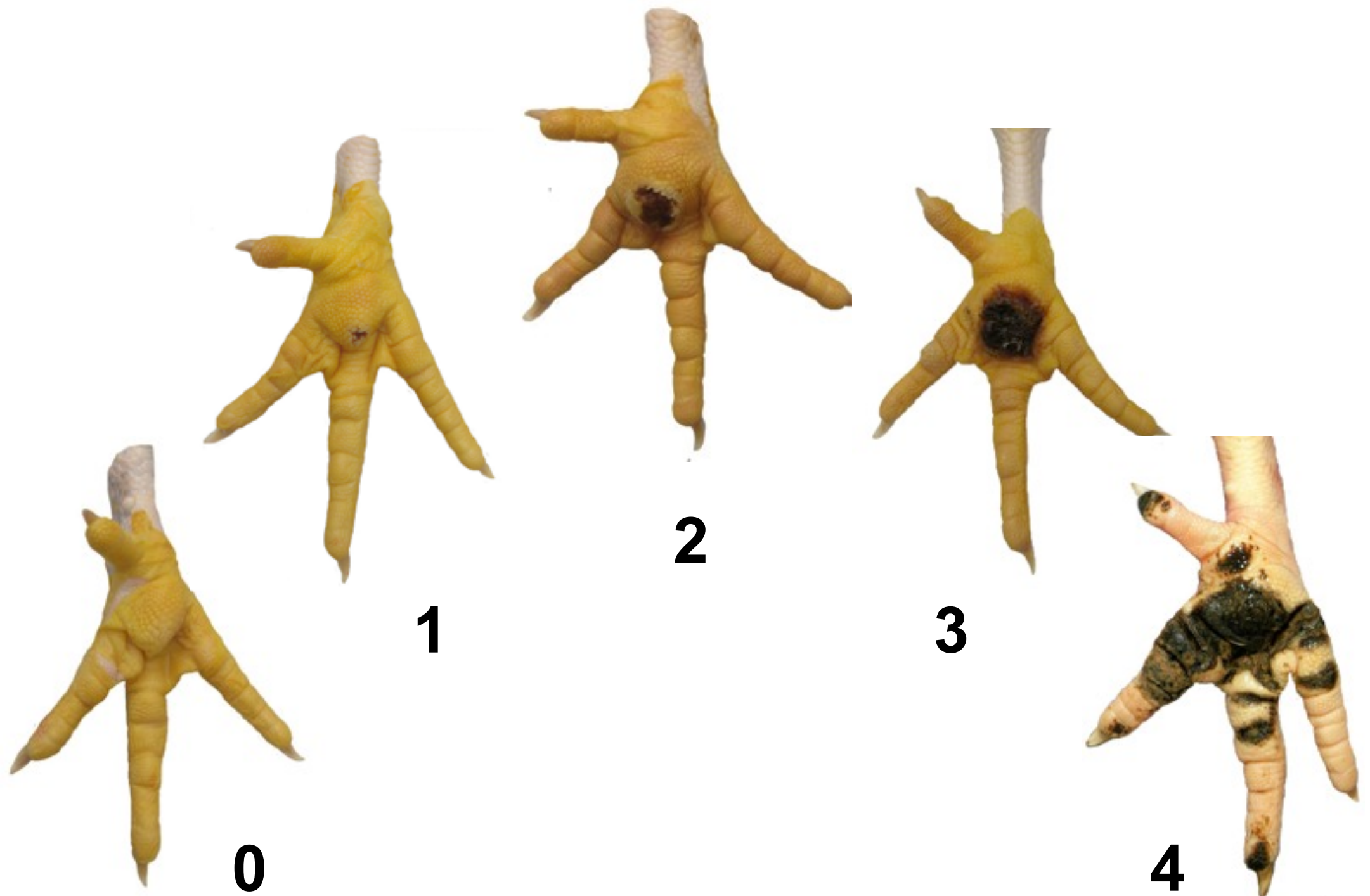
Score 1: at least one featherless area > 5 cm in diameter at the largest extent.

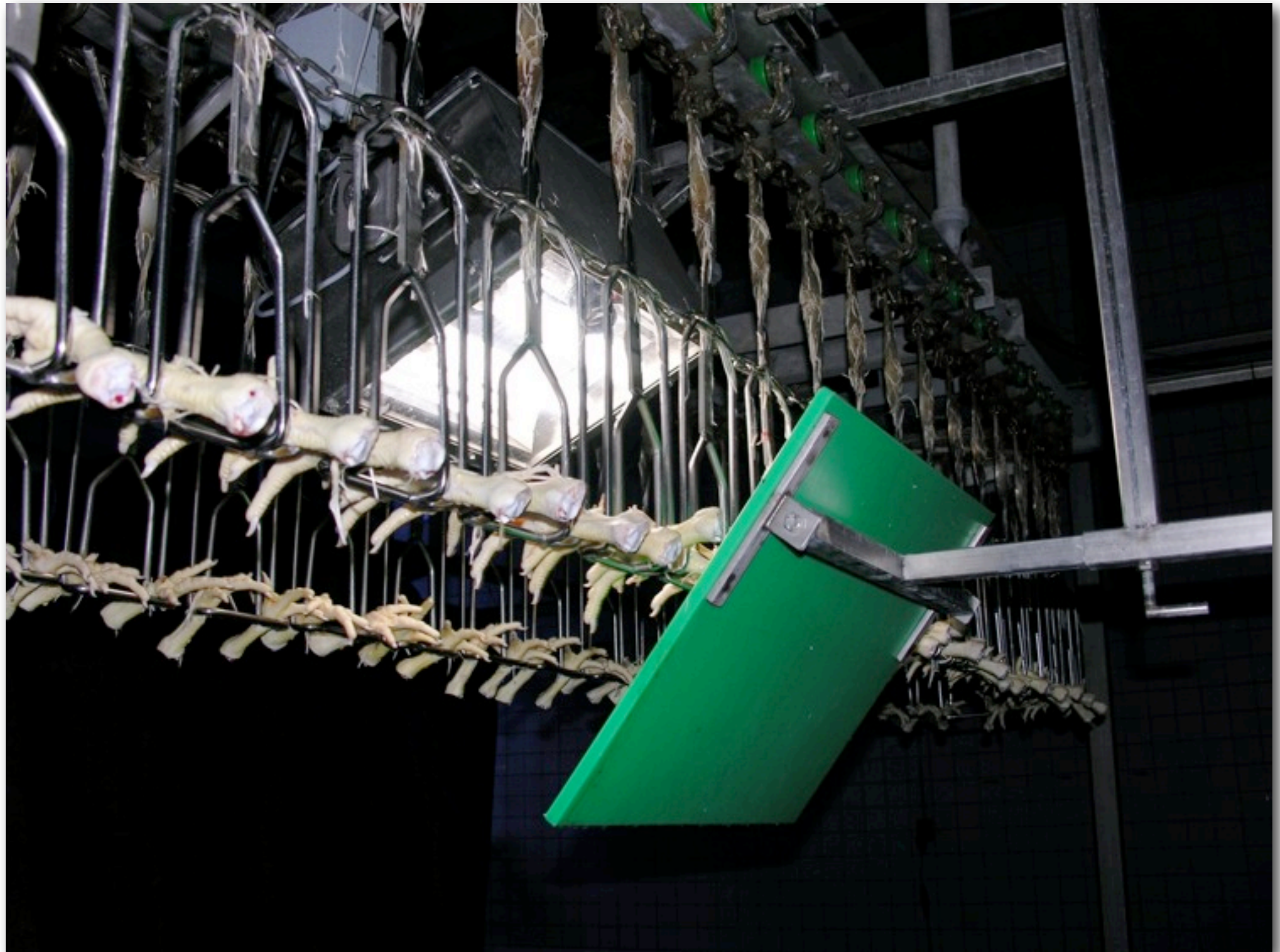


Future moves in EU
policy – animal based
assessment

Welfare Quality[®]










Automation of some measures is possible

**Welfare[®]
Quality**

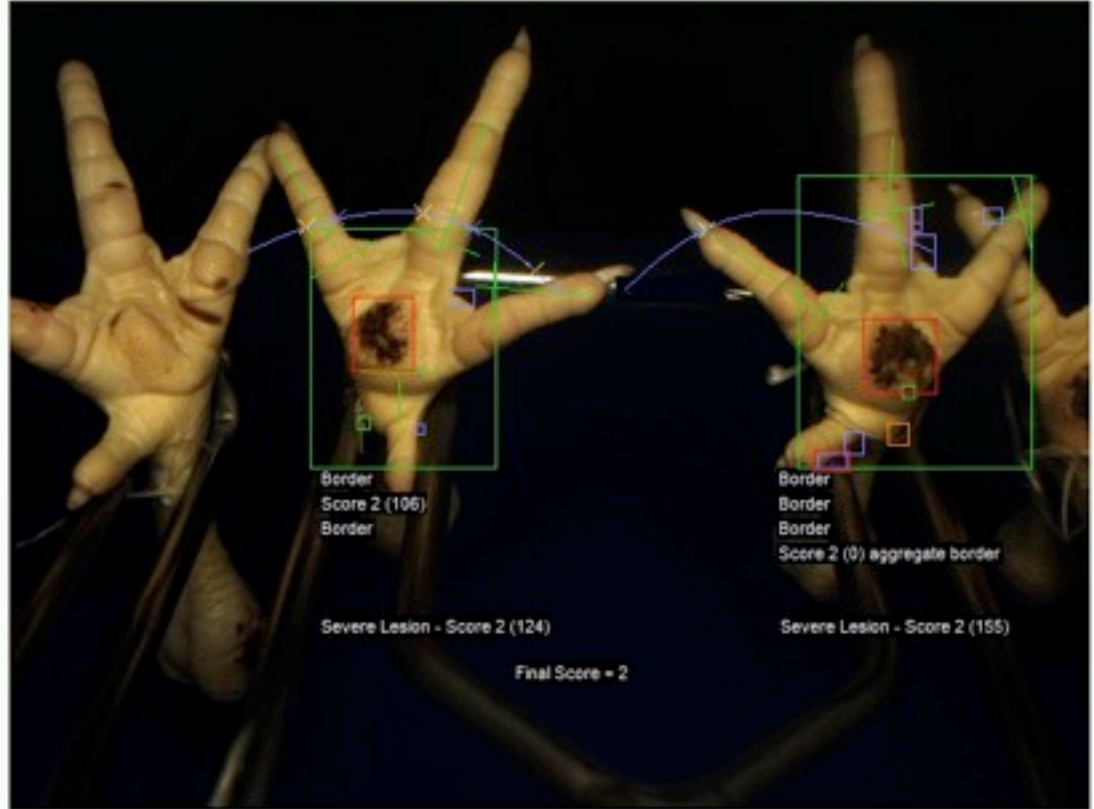
Footpads

Start Main Camera Grading Setup Recipes Logout Close

Total	15
Not Scored	0
Total Scored	15

Score 0	3		20.00
Score 1	3		20.00
Score 2	9		60.00

Flock Score (1.0 - 2.0) **140**



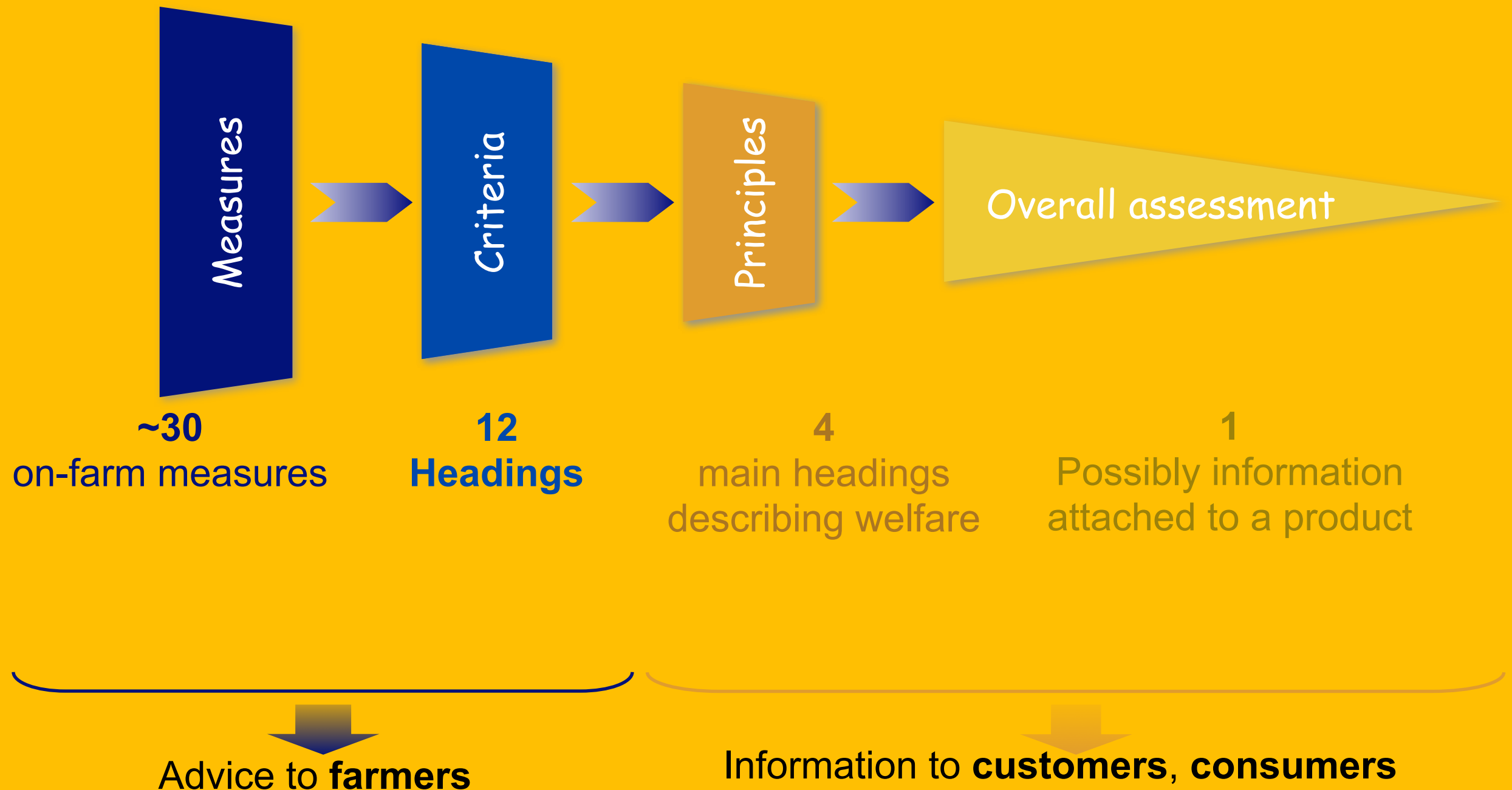
me4n
Poultry Processing Solutions

Flandrex Moyn 11:48:20





Progressive evaluation structure



Welfare[®] Quality

Criteria: absence of prolonged hunger

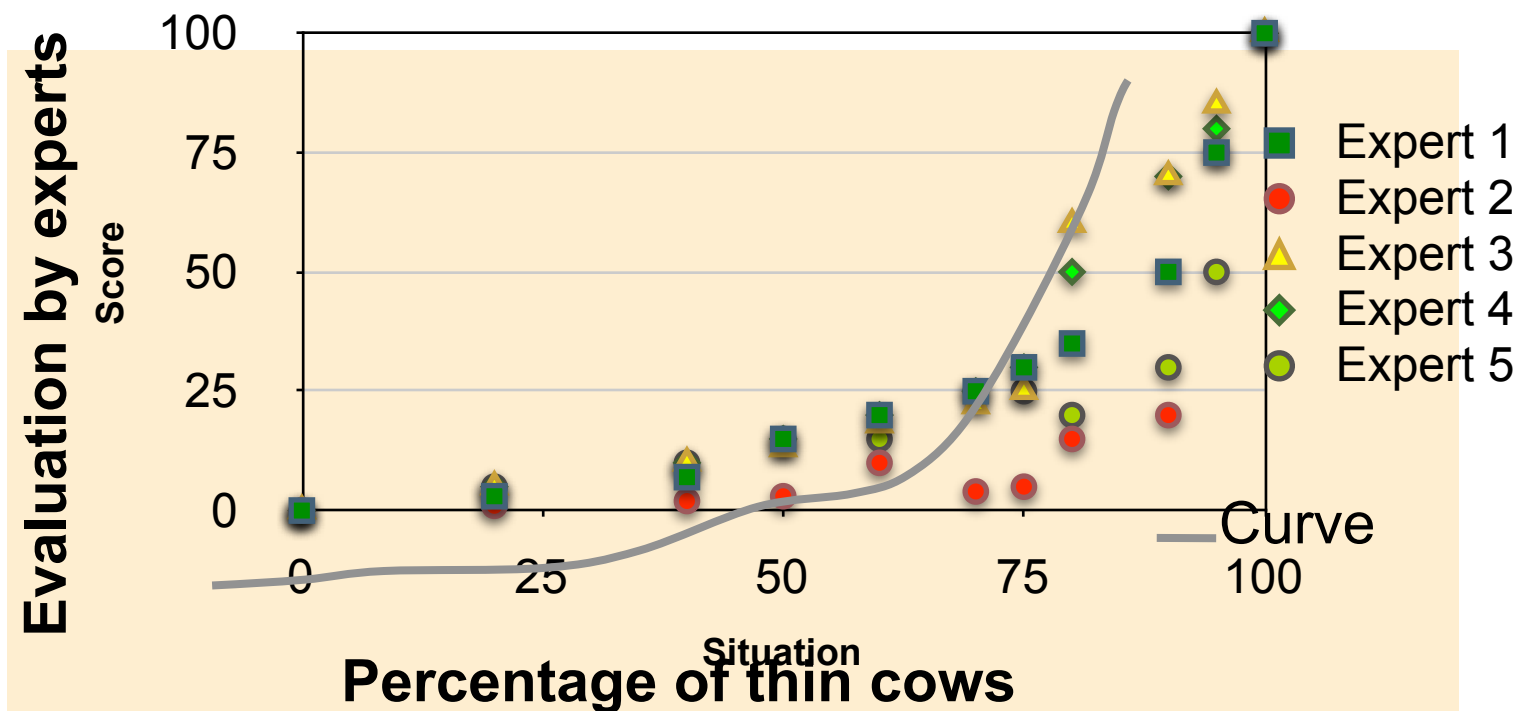
Measure: % thin cows

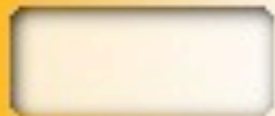


Acceptable

Too thin

Expert opinion is used to transform raw data into scores that express compliance with welfare criteria





Welfare[®] Quality

Experts consulted: animal and social scientists

More importance attributed to some criteria

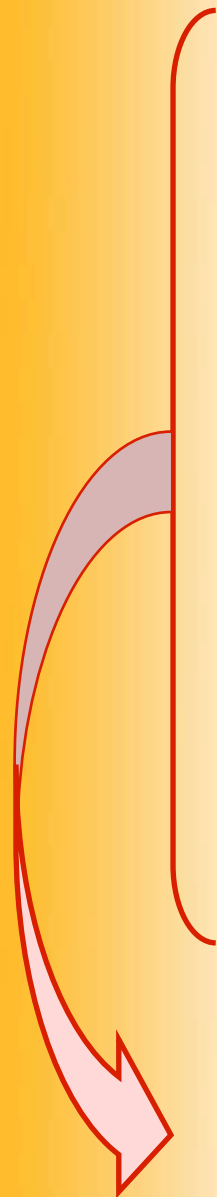
Example: principle 'Good feeding', composed of 2 criteria:



+

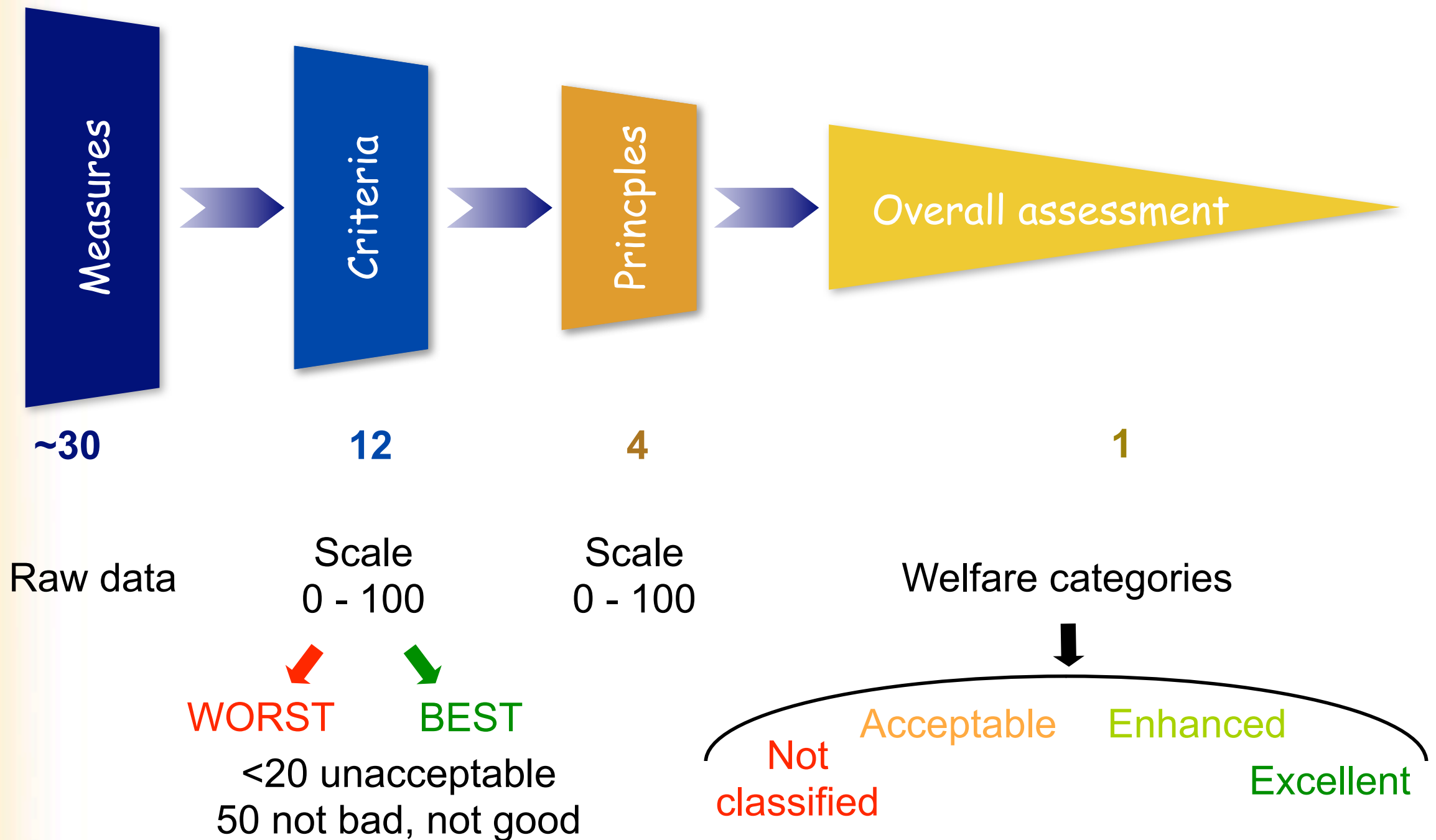


More importance attributed to bad scores

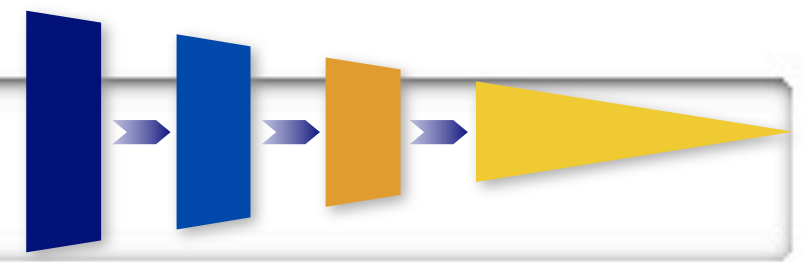


Sequential evaluation structure

Welfare[®]
Quality



From principles to overall assessment

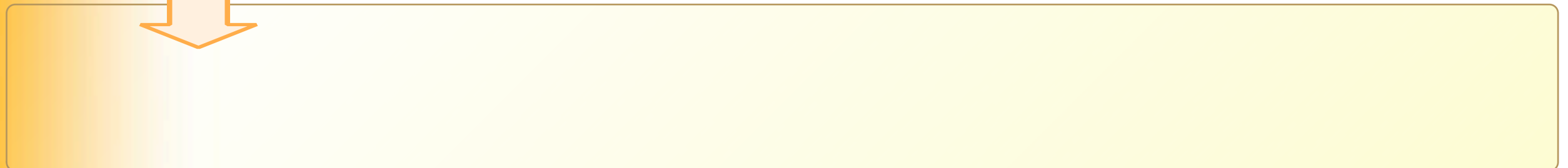


Welfare®
Quality

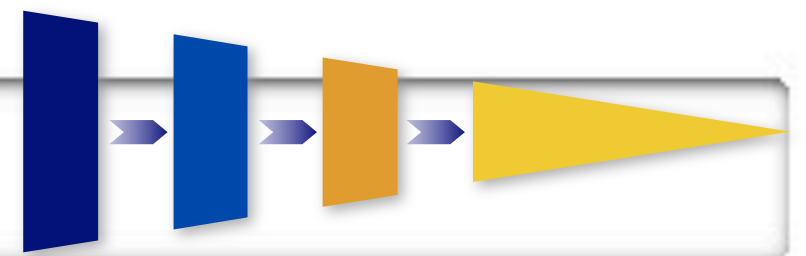
Objective = To assign farms to welfare categories

- Excellent
- Enhanced
-
- Acceptable
voluntary label
- Not classified

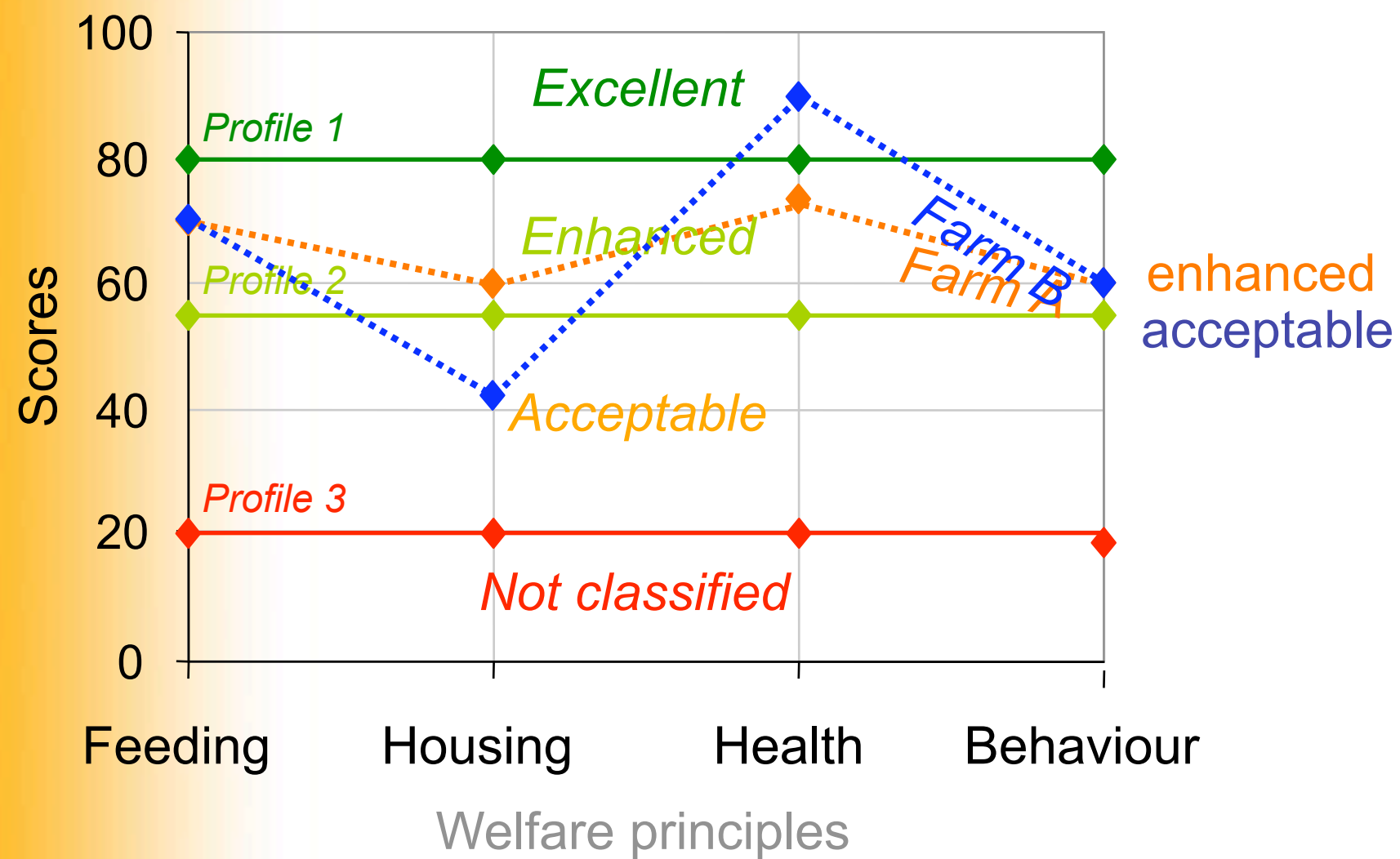
- very high welfare ⇒ may correspond to a niche market, within a very high quality voluntary label
 - farms with good farming practices but not excellent ⇒ may serve to guarantee good level of welfare within a more general quality voluntary label
 - acceptable welfare level, but insufficient to be used within a
- very poor welfare considered as unacceptable



Aggregation of criteria
into the overall assessment



Welfare®
Quality



Creating scores: Possible concerns

- Farmers

Afraid to be evaluated → easier to criticize the tool
but consider that science should tell how to evaluate

Don't want to be part of the process
to avoid criticisms from others...

- Consumers:

Don't trust calculations. "This is only to help produce more"

Have all important criteria be taken into account?

What is the importance attributed to each criteria?

What exact meaning of the welfare categories...

- Retailers - How does this fit with their own strategies?

- EU - Can the tool be used to check compliance?
- Isn't it a bit too complicated / expensive?

Critical windows might include

- Season
- Time of day
- Do you observe feeding / milking / handling
- Age of animals in relation to challenges (dehorning, castration, calving etc)

- Can you really apply scheme across a wide range of systems?











Brazil - lower technology, but does this mean lower levels of care?

















CH01

CH02

CH03

CH04

CH05

CH06

CH07

CH08

CH09

CH10

CH11

CH12

CH13

CH14

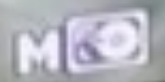
CH15

CH16

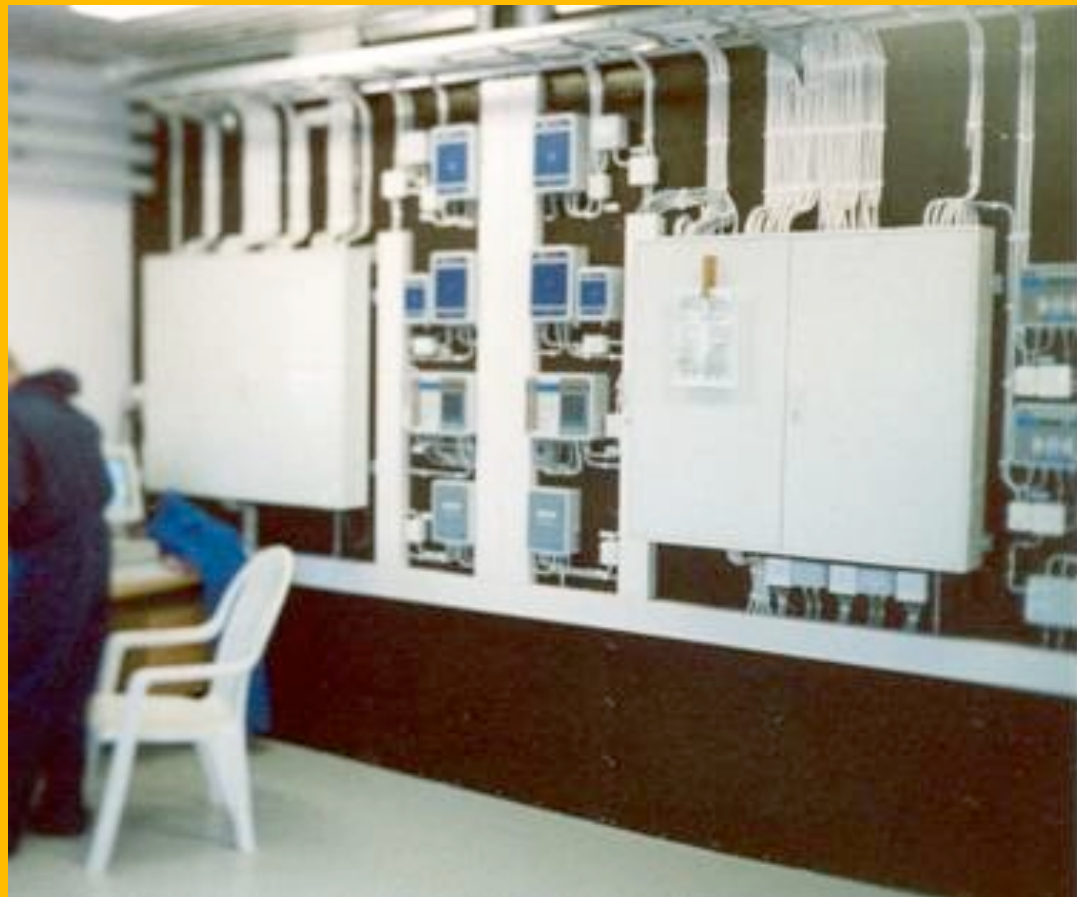
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Q











Free range (including organic) becoming a real part of the market in some countries

















In a competitive market, assessing animal based outputs, may have the potential to reward farmers who make innovations and management changes which improve the health and welfare of their animals.

These improvements could not be initiated if the assessment is only based on the type of resources available - feeder, drinker space, bedding / slats etc.

- Consultation with relevant stakeholders to understand the concerns and practical challenges (and opportunities)
- Create a steering group with appropriate representation
- Try to provide 'useful' information which can increase understanding

Skills training to enable the practical application of the legislative framework

- (inspectors - assessment skills and checklists)
- (producers - practical application of the requirements on their farms)

Opportunities



- It MAY be possible to work toward export opportunities
- It MAY be possible to sell welfare as part of a higher quality 'value added' product
- This MAY create business opportunities for small producers

How

- Identify 'useful' measures of animal welfare to assist regulatory and statutory inspection roles
- To assist existing bodies to give advise and support to producers through technical input into 'welfare' areas

Knowledge - awareness or familiarity gained by experience

Abilities - the capacity to do something

Skills - the ability to do something well

Behaviour - the way in which one acts or conducts oneself

Improve - to make or become better

Procedure - actions taken to achieve a particular outcome

Sustainable - ability to maintain a certain rate or level

Best practice . . .


**‘A procedure sympathetic
to local knowledge and
resources’**

What we may actually
want is **'better
practice'**


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Improvement

Some welfare concerns (e.g. off loading pigs by falling off lorry) would appear to be solved by a simple and practical solution ...



. . . ie. construct (where knowledge and resources permit) an offloading ramp. This ain't rocket science !



An improvement in terms of decreasing the incidence of cattle slipping and falling during transport COULD be achieved by the placing of a metal grid on the bed of the lorry . . .

. . . BUT, poor maintenance produces an injurious environment.

Engage with the industry
and affiliates, they were
here **before you**, and will
remain after **you are gone**.

Obtain government,
professional & academic
support and **involvement.**

Initial training **MUST** be
sympathetic to local
knowledge and resources.

Assessors must
receive training to
ensure
competence in
carrying out the
measures





Don't bite off
more than you
can chew !