


 Agriculture and Agri-Food Canada / Agriculture et Agroalimentaire Canada

Farm animal welfare assurance- science and its application.

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Map of Canada www.trailcanada.com

Monday Tuesday Wednesday Thursday




We use science



News release

Government of Canada Helps Farmers Improve Animal Care Practices GUELPH, Ontario, April 30, 2010

"I'm proud to be part of a Government that helps farmers ... utilize the latest research ... in farm animal care." Govt representative

"NFACC appreciates the Federal Government's support to address farm animal care issues ... utilizing science-based and collaborative processes." Industry representative

And we use science



The CFHS advocates for science-based changes to farm animal practices



"The HSUS protects all animals through legislation, litigation, investigation, education, science, advocacy and field work"

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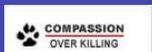
But they ignore science



US National
Pork Board

Animal Welfare Activists Too Often Ignore Sound Science in Their Efforts to Change Animal Agriculture.

and they ignore science



Labeling these eggs (United Egg Producers) Animal Care Certified ignores science, deceives consumers...



Ignores science 29,800 web pages

UK government ignores science on GM crops

Arkansas legislature ignores science, mandates toxic fluoridation

Don't Force the EPA to Ignore the Science on Global Warming.

New USDA Dietary Guidelines Ignore Science on Carbohydrate Restriction

Spotted owl plan repeats mistakes, ignores science

Bush Snowmobile Policy Ignores Science

NY Times ignores science

Russia oil, gas company ignores science

Canada ignores science...

Take home message: be cautious when you hear claims about what science says or does not say about animal welfare

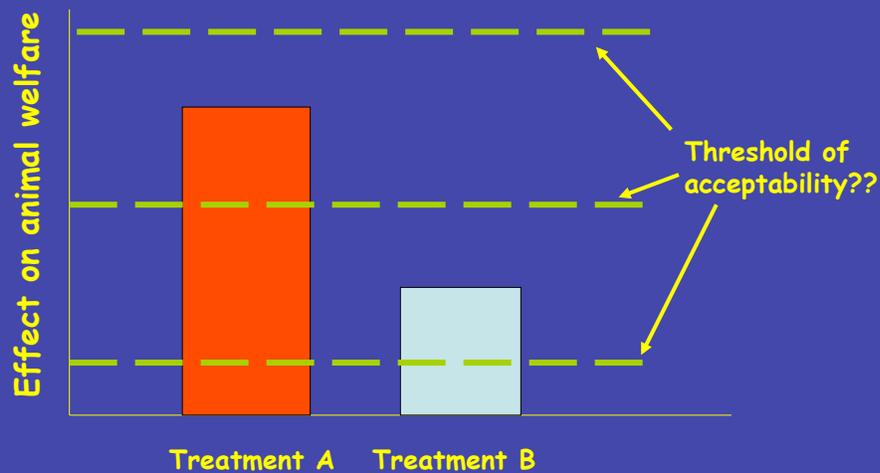


To successfully apply science to resolve issues in farm animal welfare, we need to:

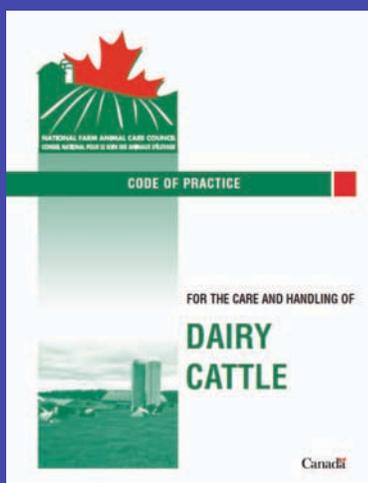
1. Be realistic in our expectations - recognize scientific limitations and uncertainty
2. Identify where research is most effectively applied
3. Recognize the challenges to the application of science



Science can measure the impact on animal welfare but cannot decide what is acceptable



Need a clear statement of community standards to determine what is acceptable



Developed by dairy farmers, animal welfare groups, government, scientists, food retailers, food processors

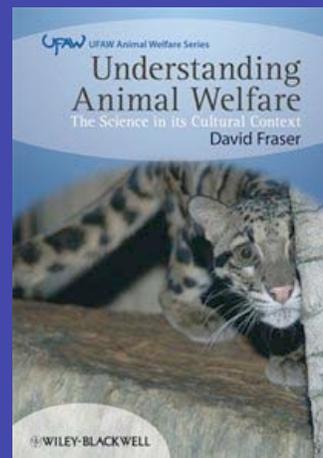
Welfare assurance in Canada needs to be based on these Codes of Practice

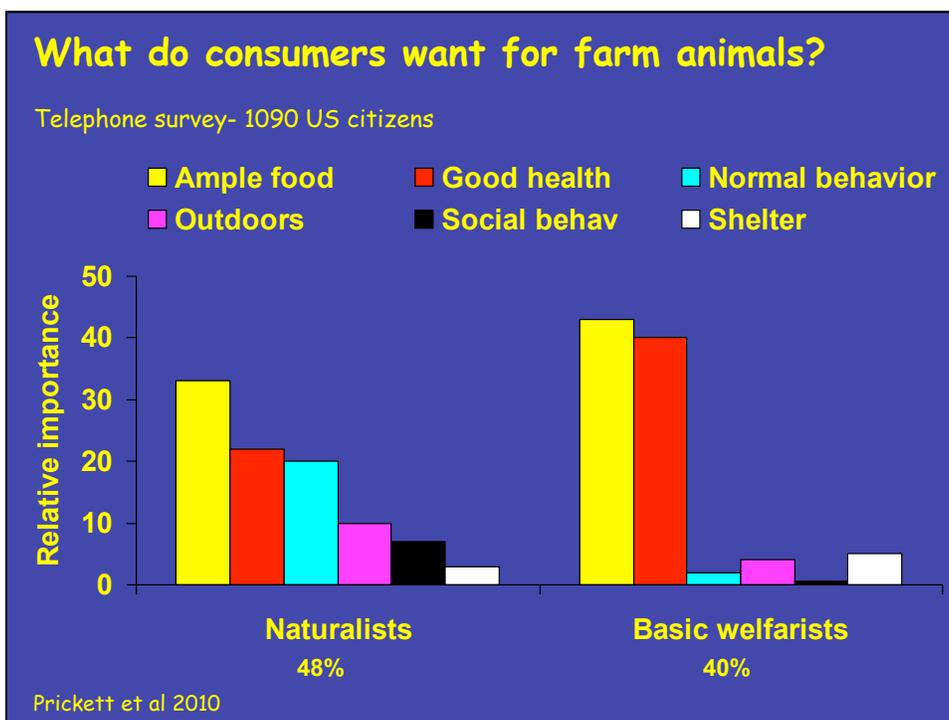
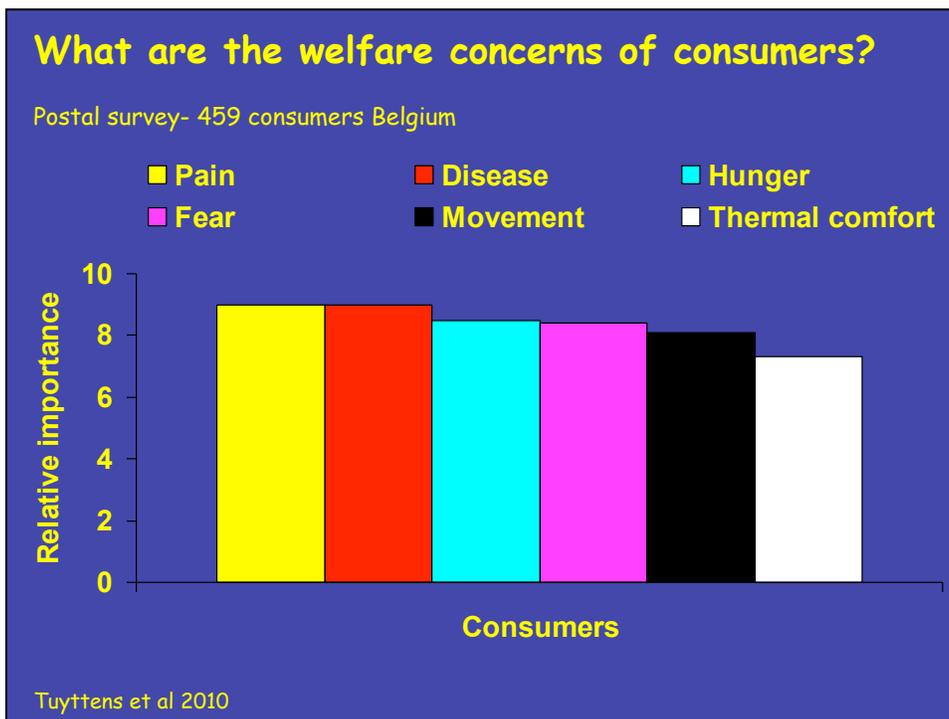
The assurance of good animal welfare needs to be based on....

a definition of animal welfare that has broad consensus and which is amenable to scientific investigation and input

A consensus definition of animal welfare needs to address the full range of concerns of all stakeholders

1. Concerns about health, disease, productivity (biological functioning)
2. Concerns about mental or emotional suffering
3. Concerns about “unnatural” practices or inability of animals to fulfill their nature





Take home message: the public has diverse views on animal welfare and is most concerned about pain, disease, hunger and behavioural problems

Why we disagree about laying hen welfare



Battery cage

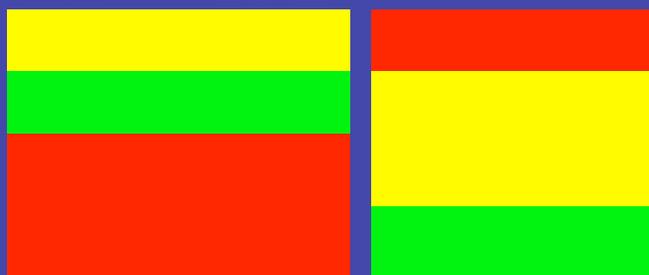


Non-cage



- Acceptable
- Moderate risk to animal welfare
- High risk

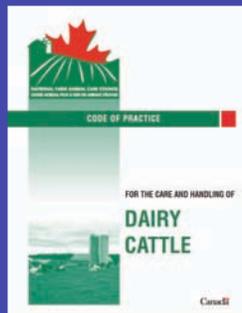
- Mortality
- Infectious disease
- Frustration of dustbathing
- Frustration of nest building



Groups of scientists of diverse disciplines can reach a consensus about animal welfare

Essential: Scientific input into animal welfare standards needs to be balanced and diverse:

Ethologists, veterinarians, nutritionists, physiologists



World organization for animal health

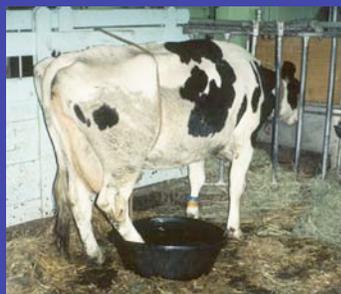
An animal is in a good state of welfare.... if it is

- healthy, comfortable, well nourished, safe,
- able to express innate behaviour,
- not suffering from unpleasant states such as pain, fear, and distress

The OIE definition provides the best definition of animal welfare that we have that has broad, global consensus



An animal is in a good state of welfare if (as indicated by scientific evidence) it is healthy.....



Lameness is a painful, costly condition affecting dairy cows

Each case of lameness costs \$400 - \$700



Is the OIE definition of welfare amenable to scientific research?



An animal is in a good state of welfare if (as indicated by scientific evidence) it is not suffering from unpleasant states such as pain, fear, and distress.

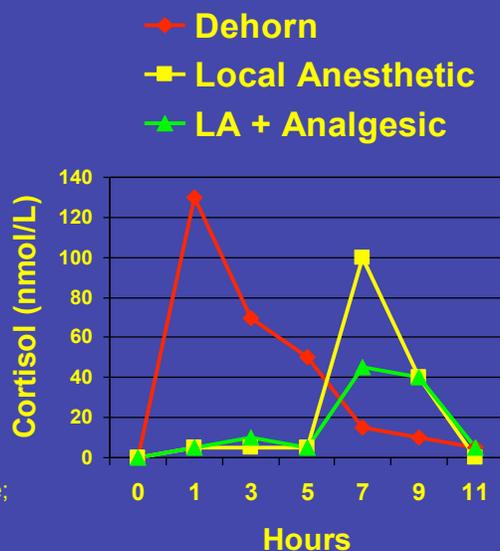
Use of painful procedures is a major concern of the public / consumers

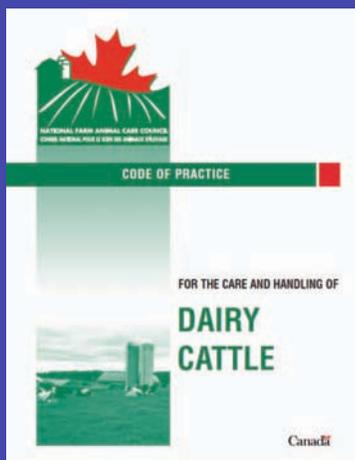
Measuring pain in farm animals: Increases in cortisol show the pain of dehorning and the value of pain control



Local anaesthetic (LA) = lignocaine;
Analgesic (NSAID) = ketoprofen

Stafford et al., 2002 Res Vet Sci 73:115-123





Requirement: Pain control must be used when dehorning or disbudding

Recommended BP: Use a combination of sedatives, local anesthetics and analgesics

Myth: We cannot scientifically assess the amount of pain animals feel.

Reality: There are many scientifically respectable techniques to measure the degree of pain caused to animals



Is the OIE definition of welfare amenable to scientific research?



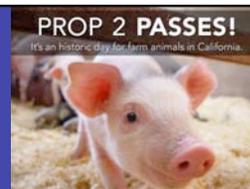
An *animal* is in a good state of *welfare* if (as indicated by scientific evidence) it is ... able to express innate behaviour,

The issue of behavioral deprivation is central to the animal welfare issue:

California Proposition 2:

Requires that calves raised for veal, egg-laying hens and pregnant pigs be confined only in ways that allow these animals to lie down, stand up, fully extend their limbs and turn around freely.

Supported by 63% of Californians in 2008



How important is it to animals to be able to perform their natural behaviour?



Using natural behaviour to improve housing



Improving animal welfare within housing systems



	Conventional cage	Enriched cage	Non-cage
<div style="margin-bottom: 5px;"> ■ Acceptable </div> <div style="margin-bottom: 5px;"> ■ Moderate risk to animal welfare </div> <div style="margin-bottom: 5px;"> ■ High risk </div>			
Mortality			
Infectious disease			
Frustration of dustbathing			
Frustration of nest building			




Different housing systems have different advantages and disadvantages for animal welfare and it is very challenging to determine which is best overall

Research can be very helpful in improving each type of housing system

Practical issues associated with auditing farms:

Limits on use of scientific knowledge

1. Limited time available on farm during audit
2. Audits done by people with limited scientific training
3. Technical limitations e.g. non-invasive measures
4. Assurance on the inputs or the outcomes?

Input-based standards describe the housing and management

e.g. free stall housing



Size of stall

Type and quality of flooring

Housing in cages



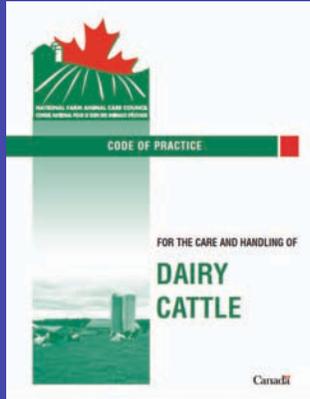
perches



Painful practices e.g. branding, tooth clipping



Examples of input-based standards



Stocking density must not exceed 1.2 cows per stall in a free stall system.

Resting areas must provide 120ft² (11m²) per mature cow in bedded-pack pens.

Dairy cattle must not be tail docked unless medically necessary.

Input-based standards

Pros:

- Easier to verify compliance
- Identify presence of risks- Can prevent welfare problems occurring

Cons:

- May not achieve what we want (i.e animal welfare may still be poor)
- Often are based on "average" animal
- Can be inflexible (inhibits innovation)

Outcome-based standards describe the actual welfare state of the animals



Abnormal behaviours



Opportunities for normal behaviour

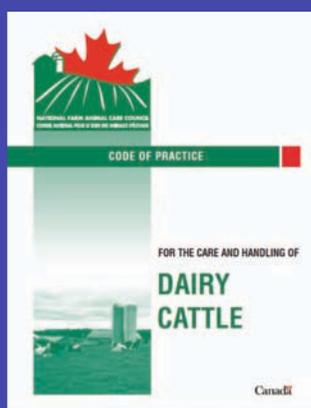


Sole ulcer

Incidence of illness or injury



Examples of outcome-based standards



Routinely observe cows for lameness and aim for prevalence of less than 10% for obvious or severe lameness

Build stalls to minimize hock and knee injuries and to allow cows to rise and lie down with ease.

Outcome-based standards

Pros:

- Based on actual state of welfare
- Can deal with individuality of animals
- Flexible (unique solutions on different farms)

Cons:

- Assesses state of animal welfare only at one time point
- Difficult to measure and verify compliance
- Difficult to define standards

Essential to have both

Resource and management based measures - to identify presence of risks: hazards or safeguards

Animal-based measures - to determine actual presence of good or poor welfare at a particular time

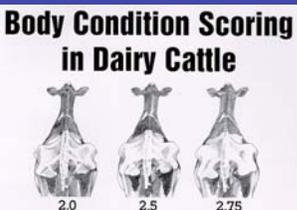
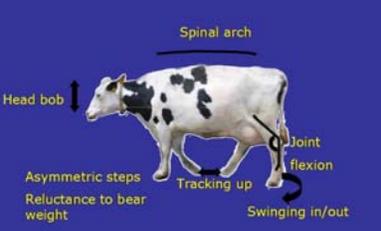
Auditor training to assess animal welfare on farm







Body Condition Scoring in Dairy Cattle

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