



Animal Health Matters.  
For Safe Food Solutions.



Schweizerische Eidgenossenschaft  
Confédération suisse  
Confederazione Svizzera  
Confederaziun svizra

Swiss Confederation

Federal Department of Economic Affairs,  
Education and Research EAER  
**State Secretariat for Economic Affairs SECO**

# Establishment of a risk-based food safety control system in the Ukrainian dairy value chain



## Component 3

### Activity 3.1.1.2

Training of Trainers (ToT), focus: small producers  
*Animal welfare and housing conditions*

*Jorge Pinto Ferreira*

Kyiv, 12-16.09.2016

# Animal welfare and housing conditions



## How can «welfare» be defined?

« The welfare of an animal is its state as regards its attempts to cope with its environment».

Broom, D.M. 1996. Animal welfare defined in terms of attempts to cope with the environment. *Acta Agric. Scand. Sect. (A), Anim. Sci.* 27, 22-28



# Animal welfare and housing conditions

## CONSUMERS

Increased  
production

Increased  
efficiency

Abundance  
Low cost



*Animal welfare*

Sustainability

Social  
responsibility

[en.m.wikipedia.org](http://en.m.wikipedia.org)



# Animal welfare and housing conditions



Milk production per cow has more than doubled (!) in the last 40 years; BUT this came at a price...

- declining ability to reproduce
- increasing incidence of health problems
- declining longevity
- increased incidence of problems resulting from inadequacies in diet
- lack of access to pasture in some systems, which prevents cows from exhibiting natural behaviour



# Animal welfare and housing conditions

## European Convention for the Protection of Animals kept for Farming Purposes

Strasbourg, 10.III.1976

The Treaty of Lisbon amending the Treaty on European Union and the Treaty establishing the European Community entered into force on 1 December 2009. As a consequence, as from that date, any reference to the European Economic Community shall be read as the European Union.

Protocol  
Explanatory Report  
Français  
Translations

The member States of the Council of Europe signatory hereto,

Considering that it is desirable to adopt common provisions for the protection of animals kept for farming purposes, particularly in modern intensive stock-farming systems,  
Have agreed as follows:

### Chapter I – General principles

#### Article 1

This Convention shall apply to the keeping, care and housing of animals, and in particular to animals in modern intensive stock-farming systems. For the purposes of this Convention animals shall mean animals bred or kept for the production of food, wool, skin or fur or for other farming purposes, and modern intensive stock-farming systems shall mean systems which predominantly employ technical installations operated principally by means of automatic processes.

#### Article 2

Each Contracting Party shall give effect to the principles of animal welfare laid down in Articles 3 to 7 of this Convention.

#### Article 3

Animals shall be housed and provided with food, water and care in a manner which – having regard to their species and to their degree of development, adaptation and domestication – is appropriate to their physiological and ethological needs in accordance with established experience and scientific knowledge.

#### Article 4

1. The freedom of movement appropriate to an animal, having regard to its species and in accordance with established experience and scientific knowledge, shall not be restricted in such a manner as to cause it unnecessary suffering or injury.

## «Five Freedoms»:

- 1) Freedom from hunger and thirst
- 2) Freedom from discomfort
- 3) Freedom from pain, injury and disease
- 4) Freedom to express normal behaviour
- 5) Freedom from fear and distress



# Animal welfare and housing conditions

## Focus of upcoming legislation:

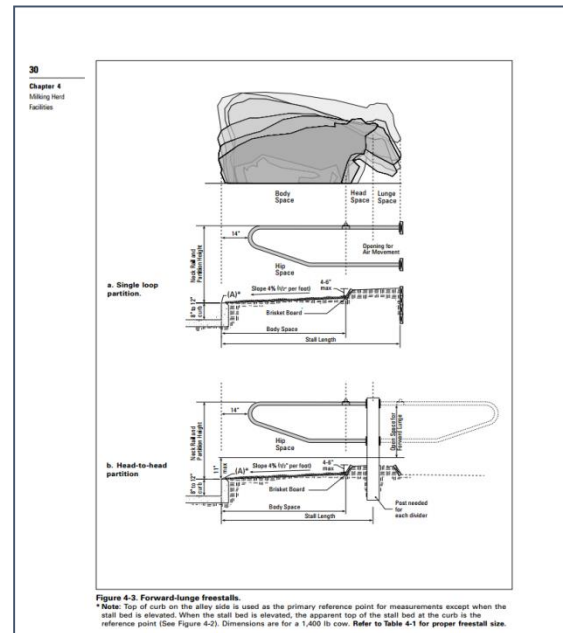
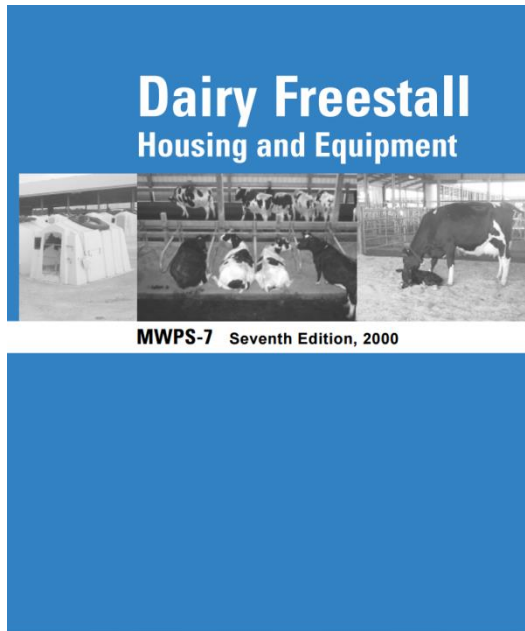
- 1) Good housing
- 2) Good health
- 3) Good feeding
- 4) Appropriate behaviour



# Animal welfare and housing conditions

Focus of upcoming legislation:

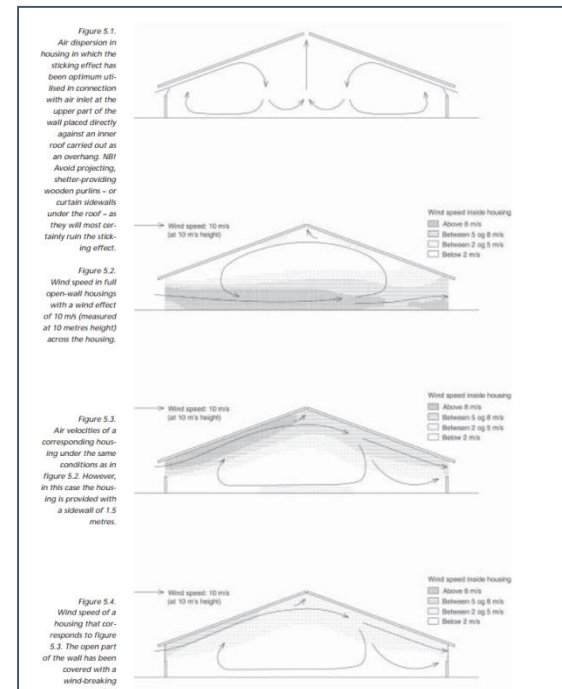
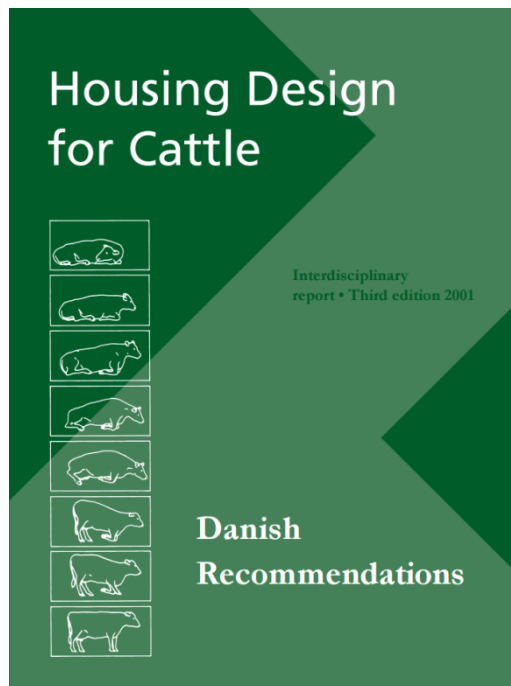
## 1) Good housing



# Animal welfare and housing conditions

Focus of upcoming legislation:

## 1) Good housing





# Animal welfare and housing conditions

## Focus of upcoming legislation:

### 1) Good housing: access to grazing and standards for indoor housing

- Cows and replacement heifers should have daily access to grazing in the grass growing season and shelter against extreme weather
- *There should be at least 5-10% more cubicles or lying boxes than the number of cows in the group*
- Flooring should be non-slip



# Animal welfare and housing conditions


## Focus of upcoming legislation:

- 1) Good housing
- 2) **Good feeding: daily diet meets the cow`s needs**
  - The daily ration should provide sufficient energy, nutrients and dietary fibre to meet metabolic requirements and promote good digestion, with adequate roughage for correct rumen function
  - Feeding systems should allow each cow to *meet her needs* for quantity and quality of feed
  - Fresh and clean drinking water must be provided ad libitum indoor and out



# Animal welfare and housing conditions

## Good feeding: daily diet meets the cow`s needs



European Food Safety Authority

EFSA Journal 2012; 10(1):2554

**SCIENTIFIC OPINION**

**Scientific Opinion on the use of animal-based measures to assess welfare of dairy cows<sup>1</sup>**

**EFSA Panel on Animal Health and Welfare (AHAW)<sup>2,3</sup>**

European Food Safety Authority (EFSA), Parma, Italy

**ABSTRACT**

Animal-based measures, identified on the basis of scientific evidence, can be effectively used in the evaluation of the welfare of dairy cattle on farm in relation to laws, codes of practice, quality assurance schemes and management. Some of these measures are also appropriate for ante-mortem inspection and there are additional post-mortem animal-based measures which can be taken at the slaughterhouse. The validity and reliability of the measures should be known. There do not seem to be any animal welfare issues that can not be addressed using animal-based measures, but there may be practical constraints that make it difficult to use some animal-based measures or which make the use of non-animal-based measures preferable in some situations. Non-animal-based measures can be used when the association between them and the welfare outcome is strong and when they are more efficient than animal-based measures as a means to safeguard welfare. Some animal-based measures are early indicators and can be used to predict those animals at risk of poor welfare. Others can only be used for welfare assessment if collected over a long period, in which case they are best taken from historical records or recording systems. For an overall classification of welfare, a wide range of measures is needed. However, it is unnecessary to use all animal-based measures on every occasion. The choice of animal-based measures will depend upon the specific objectives of the assessment. The full list is comparable to a "toolbox", from which the appropriate range of measures can be selected. The Welfare Quality<sup>®</sup> protocol provides information on the majority of the welfare outcomes of the main hazards identified in the EFSA Scientific Opinions but not those where time limitation prevents it. The extent to which short-term management can prevent the negative effects of hazards arising from genetic selection, and of most housing-related problems, is extremely limited. Herd monitoring and surveillance programmes should be implemented within the dairy industry using a range of appropriate animal-based measures in order to document welfare changes over time. There should be both initial and ongoing training of assessors to ensure valid and reliable welfare measurement.

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Recommendations (EFSA, 2009b)	Animal-based measures	Non-animal-based measures
All dairy cattle should be fed a diet that provides sufficient energy, nutrients and dietary fibre to meet the metabolic requirements in a way that is consistent with digestion (10)	Measure of nutritional status Metabolic profile (e.g. $\beta$ OHB) Rumen status Faeces consistency Milk composition (e.g. fat/protein) Fertility records Laminitis Measures of feed intake Incidence of milk fever Incidence of ketosis	Diet composition Feeding strategy
Feeding systems should allow every cow to meet its needs for quantity and quality of feed. Concentrate feeding facilities should be adequately maintained and diets carefully balanced to maintain optimal rumen fermentation and to minimise negative energy balance (11, 18)	Measure of nutritional status Metabolic profile (e.g. $\beta$ OHB) Rumen status Faeces consistency Milk composition (e.g. fat/protein) Fertility records Laminitis Measures of feed intake Neck lesions Behaviour at feeding time	Inspection of feeders and feed barriers Feeding strategy Number of feeding places per animal
When diet is changed there should be carefully controlled transition feeding. Feeding and management of the dry cow should be designed to prevent metabolic disorders such as ketosis and parturient paresis (milk fever) (10, 19)	Measure of nutritional status Metabolic profile (e.g. $\beta$ OHB) Rumen status Faeces consistency Milk composition (e.g. fat/protein) Fertility records Laminitis Measures of feed intake Incidence of milk fever Incidence of ketosis	Diet composition Feeding strategy Feed space and availability (feeding time and frequency)
Dairy cows should be presented with continuous access to good quality drinking water, whatever their diet (14)	Evidence of dehydration (e.g. reduced milk yield, urine specific gravity, skin tent test) Behavioural evidence that cows are drinking Water intake	Inspection of water points Analysis of water source
Provision of water points (troughs or drinkers) should ensure that cows do not need to wait too long, nor compete for water, and allow them to put their mouths into the water (12, 13)	Evidence of dehydration (e.g. reduced milk yield, urine specific gravity, skin tent test) Waiting and agonistic behaviours at water points Observation that cows do put their mouths into the water	Inspection of water points Location of water points



# Animal welfare and housing conditions

## Focus of upcoming legislation:

- 1) Good housing
- 2) Good feeding
- 3) **Good health: Ensuring cows are healthy, and do not undergo pain and suffering**

Health indicators for welfare assessment for dairy cows	
General appearance	Body condition score
Skin	Parasites, infections, wounds
Legs	Lameness, hoof care
Udder	Teat lesions, clinical mastitis
Systemic diseases	General condition; Diseases
Mortality	Case history of culled animals

adapted from «*Indicators for the assessment of animal welfare in a dairy cattle herd with a cubicle housing system*»; T. Rousing, M. Bonde & J.T. Sorensen



# Animal welfare and housing conditions

## Focus of upcoming legislation:

- 1) Good housing: access to grazing and standards for indoor housing
- 2) Good feeding: daily diet meets the cow`s needs
- 3) Good health: Ensuring cows are healthy, and do not undergo pain and suffering
- 4) **Appropriate Behaviour:**

### **Cows have the opportunity to express their natural behaviour**

- excessive aggression should be prevented by keeping cows in appropriate social groups with appropriate pen design

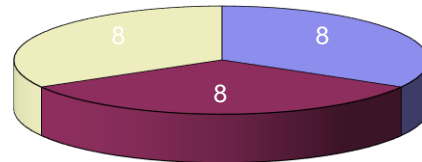
- handling aids should be specified

(electric prods, loud noise and physical force should be prohibited)



# Animal welfare and housing conditions

## When does a cow sleep?



- Ruminação
- Alimentação
- Descanso



# *Animal welfare and housing conditions*

- Brief presentation

- Group work

1) Problems/issues

2) Solutions

3) Key messages

4) Delivery method

- Presentation of results and discussion





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# Thank you for your attention

[jorge.pinto-ferreira@safoso.ch](mailto:jorge.pinto-ferreira@safoso.ch)



Swiss-Ukrainian Project

“Establishment of a risk-based food safety  
control system in the dairy value chain in Ukraine”

Tel.: [+38 044 279 87 12](tel:+380442798712) (13) Fax: [+38 044 279 88 45](tel:+380442798845)

Address: 1, 10, Malopidvalna Str., Kyiv, Ukraine

Web: [www.safoso.ch](http://www.safoso.ch); [safoso.com.ua](http://safoso.com.ua)