



[www.animalwelfare.net.au](http://www.animalwelfare.net.au)

# Welfare assessment of dairy cows

How can it be used to benchmark their welfare?

Ellen Jongman

*AWSC, DPI Victoria*



# Approaches to animal welfare assurance (Fraser 2006)

- ◆ **Non-mandatory welfare codes and guidelines**
- ◆ **Regulations**
- ◆ **Inter-government agreements**
- ◆ **Quality Assurance programs**
- ◆ **Product differentiation and labelling programs**



# What is a 'benchmark'

- ◆ **A benchmark is a point of reference to make comparisons, usually implying that it is a good basic standard to achieve.**
- ◆ **A benchmark should not be just a tick in a box or a collection of statistics.**
- ◆ **Identify what are the most useful indicators, rather than what is easiest to measure.**
- ◆ **A benchmark can highlight a problem area, potential for improvement, incentive to change, assist in setting targets**



# A definition of benchmarking, as a framework for continuous improvement, is provided by Jackson and Lund (2000)

Benchmarking is, first and foremost, a learning process structured so as to enable those engaged in the process to compare their performance in order to identify their comparative strengths and weaknesses as a basis for self improvement and/or self-regulation.



# Why benchmark animal welfare?

- ◆ **To assess industry performance on animal welfare**
- ◆ **To be able to demonstrate, and instil trust in consumers, that welfare standards are being met**
- ◆ **To protect international markets**
- ◆ **To assist and demonstrate continuous improvement**



# Definition of animal welfare

**‘the state of an animal in it’s attempt to cope with its environment’ (Broom, 1986)**

**This definition mainly underpins the ‘biological function approach’, which allows for scientific assessment of animal welfare (cortisol, immune competence measures, disease, growth etc).**



# **Animal welfare; Scientific question or ethical question?**

**Economic approach – Production indicators**

**Veterinary approach – Health indicators**

**Ethological approach – Behavioural indicators**

**Quality of life approach - Animal feelings?**



# Current Animal Welfare monitoring systems

- ◆ **RSPCA '5 freedoms'**
- ◆ **Welfare Quality**
- ◆ **Bristol Welfare Assurance Programme**
- ◆ **The Swine Welfare Assurance Program (SWAP)**
- ◆ **Alberta Livestock Protection System (ALPS)**
- ◆ **Animal Welfare Management Programme (Scottish government)**
  
- ◆ **Welfare incorporated in QA programs**





# RSPCA Five Freedoms

- 1 Freedom from hunger and thirst**
- 2 Freedom from discomfort**
- 3 Freedom from pain, injury and disease**
- 4 Freedom to behave normally**
- 5 Freedom from fear and distress**



# WelfareQuality

- ◆ 5 year project
- ◆ 44 institutes and universities
- ◆ More than 80 researchers
- ◆ 25 million dollars
- ◆ Covering several animal industries



# Welfare Quality Aims

- ◆ **Integration of Animal Welfare in the Food Quality Chain**
- ◆ **To improve food quality by ensuring the welfare of farm animals**
- ◆ **To create standards for assessing the welfare of farm animals throughout Europe**
- ◆ **To develop practical strategies to improve animal welfare.**
- ◆ **To develop a product information system to assure consumers that their food has been produced according to ethically sound procedures**



# WQ welfare criteria

## **Good Feeding**

1. Absence of prolonged hunger
2. Absence of prolonged thirst

## **Good housing**

3. Comfort around resting
4. Thermal comfort
5. Walking surface

## **Good Health**

6. Absence of injuries
7. Absence of disease
8. Absence of pain (husbandry procedures)

## **Appropriate Behaviour**

9. Expression of social behaviour
10. Expression of other behaviours
11. Good human-animal relationship
12. Absence of negative emotions



# Measurements of animal welfare

- ◆ **Valid** – science based
- ◆ **Repeatable** – same results regardless of time and observer
- ◆ **Feasible** – easy to observe within a reasonable time

## Therefore they should be

- ◆ Exhaustive
- ◆ Minimal
- ◆ Independent
- ◆ Agreed by stakeholders
- ◆ Legible



# Welfare assessment on-farm

- ◆ **Animal based indicators**
- ◆ **Resource based measures**
- ◆ **Management practices**



# Animal based indicators

- ◆ **Injuries**
- ◆ **Body condition scoring**
- ◆ **Fear responses**
- ◆ **Lameness assessment**
  
- ◆ **Mortalities**
- ◆ **Milk quality**
- ◆ **Production records**
- ◆ **Health records**



# Resource based measures

- ◆ **Feed and water**
- ◆ **Space allowance**
- ◆ **Shade and shelter**
- ◆ **Flooring**
- ◆ **Housing system**





# Management practices

- ◆ **Maintenance records**
- ◆ **Herd health plans**
- ◆ **Emergency plans**
- ◆ **Training and skills**
- ◆ **Record keeping**



# Effective monitoring scheme

- ◆ **Good scientific basis**
- ◆ **Satisfy public, industry and political views of animal welfare**
- ◆ **Active involvement from, and feedback to, producers**



# WQ welfare assessment protocols

- ◆ **Qualitative Behaviour Assessment**
- ◆ **Approach – Avoidance test**
- ◆ **Clinical Scoring**
- ◆ **Behaviour Observations**
- ◆ **Resource Checklist and Management Questionnaire**



# Assessing animals welfare in dairy cows in extensive systems

- ◆ It is generally agreed that animal welfare is high when animals can behave naturally
- ◆ Welfare assessment systems generally developed for animals in intensive systems
- ◆ Observation of animals in more extensive systems is much more difficult
- ◆ Circumstances of animals kept outdoors are highly variable
- ◆ Australian dairy industry is seasonal in nature



# Problems with animal based measurements on Australian dairy farms

- ◆ Large variation throughout the year
- ◆ Large variation depending on weather
- ◆ Extensive systems
- ◆ Time consuming to observe all aspects
- ◆ Some aspects are seasonal
- ◆ Most important indicators difficult to observe directly



# Welfare issues of most concern to the Australian dairy industry

- ◆ **Calf management**
- ◆ **Lameness**
- ◆ **Dehorning**
- ◆ **Tail docking**
- ◆ **Induction**



# Useful animal observation

- ◆ Fear avoidance response
- ◆ Behaviour around milking
- ◆ Body condition scoring
- ◆ Lameness assessment?
- ◆ Husbandry procedures?



# Dairy Welfare Reference Document

- ◆ **Assesses resources and management practices**
  
- ◆ **6 Elements assessed:**
  - Facilities and equipment
  - Provision of feed and water
  - Herd management
  - Humane destruction
  - Staff competency
  - Sale and transport





# Dairy cow management questionnaire

- ◆ Questions about the farm and animal health
- ◆ Facilities and equipment
- ◆ Feed and water
- ◆ Herd health management
- ◆ Routine husbandry
- ◆ Reproductive management
- ◆ Calf management
- ◆ Humane destruction



# How can benchmarking improve Animal Welfare in Australia?

- ◆ **Science based, specifically designed for Australian conditions**
- ◆ **Needs to include direct animal observations**
- ◆ **Include a comprehensive questionnaire backed up by records**
- ◆ **Needs to be fully supported by all stakeholders**
- ◆ **Needs to be industry-wide**
- ◆ **Needs to have a driver**
- ◆ **Needs to be more than just a collection of statistics**