Welfare assessment of dairy cows

How can it be used to benchmark their welfare?

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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 its 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