



**IDF World Dairy Summit**  
**United Dairy World 2009**  
BERLIN 20-24 SEPTEMBER

## Conference 03 – Animal Health & Animal Welfare

### ***Measuring farm animal welfare objectively: the outcome based assessment, challenges and opportunities for the dairy sector***

Linda J. Keeling<sup>1</sup> and Christoph Winckler<sup>2</sup>

<sup>1</sup> Department of Animal Environment and Health, Swedish University of Agricultural Sciences, Uppsala, Sweden.

<sup>2</sup> Institute of Livestock Sciences, Department of Sustainable Agricultural Systems, University of Natural Resources and Applied Life Sciences, BOKU, Vienna, Austria.

Although it has long been accepted that welfare is a characteristic of the individual animal, the main approach to safeguarding welfare has been to house and manage animals in as good a way as possible. This is of course essential to reduce the risk of poor welfare. But animals differ in their genetics, early experience and temperament, and so may experience the same environment differently. The actual level of welfare therefore is the 'outcome' of the many housing and management 'inputs' that are acting upon the animal and so will vary between individuals. Consequently the most valid way to assess welfare is to use a broad range of animal-based measures (animal body condition, health aspects, injuries, behaviour etc.). An added advantage of using animal-based (outcome) measures is that it means welfare can be assessed independently of housing system i.e. it allows a harmonisation of measures and a standardised methodology.

The concept of animal-based measures is not new, farmers have been observing their animals to assess health and welfare for centuries. This is why animal-based measures are generally well accepted by farmers. The difference now is the scientific effort that has been directed towards validating existing measures and developing new ones, so that all aspects of welfare can be covered and so the measures are as objective as possible. There is already a considerable body of research on cattle welfare and the EU research project 'Welfare Quality' has developed a welfare assessment protocol for dairy cattle that can be used alone or to benchmark existing schemes. This science based methodology can also be used to provide feedback to farmers on the welfare status of their animals and help the dairy sector direct its advisory services most effectively. Another potential use is in certification schemes.