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**Harry Blokhuis**, Coordinator

## Meeting of the General Assembly of the Welfare Quality Network

The annual General Assembly (GA) of the Welfare Quality Network took place in the facilities of the Welsh Higher Education office in Brussels, Belgium, on Tuesday 4 and Wednesday 5 December 2012. Seventeen partners were represented.

The format of the meeting was slightly different this year. It included not only reports on administrative and financial issues and the activities of the Network but also a session during which partners reported on ongoing related research. The latter part of the programme started after lunch on Tuesday and the more 'traditional' part of the GA took place on Wednesday.

The reports of ongoing WQ-related activities generated lively discussion. The speakers addressed topics such as the link between welfare standards, profitability and carbon footprint (Marie Haskell, SRUC, UK), ongoing work in

the Netherlands and Belgium (Hans Spoolder, Wageningen UR Livestock Research, NL, and Frank Tuytens, ILVO, BE, respectively), repeatability over time of WQ measures, criteria and principal scores for beef and dairy cattle (Christoph Winckler, BOKU, AUT), information about a new German animal welfare label (Ute Knierim, Uni. Kassel, DE), implementation of the WQ protocols for cattle and pigs in commercial slaughterhouses and their use in control posts and transport (Antoni Dalmau, IRTA, ES), and the application of parts of the WQ protocols (cattle and pigs) within the Quality Transport and Control Post project (Paolo Ferrari, CPRA, IT). Tuesday concluded with a very nice dinner with lots of discussion.

On the second day we discussed administrative and financial issues (e.g. budget, fees and expenses) and the activities and progress of the different working groups (data handling, upgrading of protocols, training) in the Welfare Quality Network.

Furthermore, a demonstration was given of a database designed to provide a better overview for partners of ongoing work, and we discussed our communication and dissemination activities.

All in all the two days were enjoyable and inspiring and they clearly showed that the WQN is very much alive and active!

*Harry Blokhuis*  
Coordinator

## Coordinated European Animal Welfare Network (EUWelNet)

In 2009 the European Commission presented the idea of a European Network for Animal



**Welfare Quality Network General Assembly, Brussels, December 2012.**

Protection and Welfare in a report to the Parliament, the Council and the European Economic and Social Committee.

The EC's Communication on the European Union Strategy for the Protection and Welfare of Animals 2012–2015 made it clear that the role of such a network should be to ensure that the competent authorities receive coherent and uniform technical information on the way the EU legislation should be implemented, especially in the context of outcome-based animal welfare indicators. The network's tasks were proposed to be:

- to support the Commission and the Member States with technical expertise, especially in the context of the use of outcome-based animal welfare indicators;

- to conduct training courses for the benefit of staff from competent authorities and experts from third countries where relevant;
- to contribute as appropriate to the dissemination of research findings and technical innovations among EU stakeholders and the international scientific community;
- to coordinate research in collaboration, when appropriate, with existing EU-funded research structures.

In response to a call from the European Commission (DG Sanco) we proposed a project called EUWelNet. For this project a consortium was established that builds on two existing knowledge networks: the Welfare Quality Network <<http://www.welfarequalitynetwork.net>> and the AWARE project <<http://www.aware>>



**General Assembly dinner, Brussels, December 2012**

-welfare.eu>. All the partners in these two networks were invited to participate and the majority of them responded positively. The resulting consortium brings together 26 partners with a wide range of expertise (technical, scientific and educational) in a number of different disciplines and with broad geographical spread (16 EU countries).

The EUWelNet project was evaluated positively and selected for support by a grant from the European Commission. The project aims to study the feasibility of a coordinated European animal welfare network. Briefly, our project will address four main objectives:

- to establish and coordinate a network of experts;
- to identify bottlenecks/ difficulties in implementing a few examples of EU legislation on animal welfare;
- to develop and test knowledge transfer strategies to overcome selected bottlenecks;
- to analyse and make recommendations on the feasibility and conditions for a coordinated network.

We will collect and analyse data to identify relevant public and private actors, difficulties in the implementation of selected legislations (with particular attention to problems related to knowledge gaps), and the measures taken to address non-compliance. We will also develop and test different strategies (training, e-learning, educational material, improved SOPs) designed to transfer knowledge to competent authorities and other stakeholders in order to improve the level of understanding and implementation of the above legislations.

Finally we will collate, analyse (in terms of achievability and costs/benefits) and report the outcomes of this pilot study to provide overarching conclusions and recommendations on the feasibility, likely roles, benefits and effectiveness of a coordinated network, and the conditions under which the EU could support it.

*Harry Blokhuis*  
Coordinator EUWelNet



**Isabelle Veissier, INRA**

### **Welfare Quality® Assessment Protocols Now Available**

The Welfare Quality® Assessment Protocols for cattle, poultry and pigs are now available on the WQN website as downloadable PDF files at <<http://www.welfarequalitynetwork.net/network/45848/7/0/40>>.

*Mara Miele*

### **Guidelines for the Development of the WQ Assessment Protocols**

At the end of the Welfare Quality® project, it was felt that the assessment protocols would need further refinement when new knowledge and helpful techniques emerged in the future. The Welfare Quality Network is preparing a set of principles to guide the development of Welfare Quality® assessment protocols so that any further refinement can follow common guidelines. These guidelines should also apply to protocols developed for new species (i.e. that were not covered in the original project) by people who want to follow the Welfare Quality® approach. The Welfare Quality Network will also propose a process for reviewing upgraded and new protocols. The guidelines should be ready in early 2013.

*Isabelle Veissier*  
INRA



**Hans Spoolder, WUR**

### **Dutch Welfare Quality® Work**

The Dutch Government is very enthusiastic about the outcomes of the Welfare Quality® project, and wants to encourage the use of animal-based measures to improve animal welfare and farm performance. Discussions with the farming industry have led to the conclusion that they are less keen: the protocols are considered complex and costly. Therefore the Ministry commissioned Wageningen Livestock Research to investigate whether the current protocols for pigs, veal and poultry could be simplified, without loss of quality. The Dutch Animal Health Service (GD) was asked to do the same for dairy cattle.

Our approach involved the collection of a large amount of data (aiming for a minimum of 150 farms per species), which was then analysed statistically by the Biometris team in Wageningen. They investigated, for example, whether measures could be left out of the protocol, or replaced by other measures, without changing the outcome. They also looked at the sample sizes required for various parameters, and tried to reduce the size and duration of the protocol without loss of quality.

The conclusions of our work vary between species. For dairy cattle we could not find a

way of reducing the size of the protocol. The Health Service investigators did, however, note that there were a few occasions where the outcomes of the assessment did not match their 'intuitive' perception of the level of welfare on a farm. It would be interesting to know if other investigators also encountered this problem. For more information contact Thomas Dijkstra: <t.dijkstra@gddeventer.com>.

There are only limited options to simplify the veal calf protocol, based on current data collection methods. They involve a reduction in the number of behavioural observations, and the prediction of oral behaviour from rumen development data collected at the abattoir. In addition, the team suggests using the full WQ protocol periodically, and using a reduced set of measures in between e.g. 2–4 measures from every principle. They also recommend that one should focus on the parameters themselves and let farmers work with those to improve animal welfare on their farm, i.e. tackling identified problems. Kees van Reenen can be contacted for more info: <kees.vanreenen@wur.nl>.

The pig data suggested that a reduction in the sample size for growing–finishing pigs (now 150) to 75 is acceptable. Slaughter data may also replace some on-farm measures, but the correlations found at present are not strong enough yet. Some changes to the protocols are required to reach acceptable correlations. For sows no reduction of the sample size seemed acceptable. However, the Dutch dataset shows that about half of the measures for finishing pigs can be left out due to low variability between farms and lack of problems. But it is important to remain alert in case any undesirable incidents occur. It has to be noted though that there was only a minimal reduction in observation time as a result of such omission of measures. In addition, removing parameters requires modifying the calculation of welfare scores. Herman Vermeer can provide further information: <herman.vermeer@wur.nl>.

The study of the laying hen protocol did not result in any suggestions for a reduction in size. The investigators conclude that this is not necessarily a large problem if the frequency of monitoring can be limited, perhaps by using one

or a few measures as warning signals to indicate whether and when a full assessment is required. Possible examples of such signals are: mortality, culls, second-grade eggs (number or type). Further study is merited. For further information please contact Thea van Niekerk <thea.vanniekerk@wur.nl>.

The broiler simplification study yielded the most promising results. The data suggest that gait score on farm can be predicted from the incidence and severity of foot pad dermatitis on farm. This will save up to one hour on farm. Furthermore, some on-farm measures can be predicted through measures taken at the abattoir, e.g. hock burn, soiling and foot pad dermatitis. For confirmation, the study should be repeated with farms that have a more representative spread across final classification scores. Ingrid de Jong has the details: <ingrid.dejong@wur.nl>.

The Dutch ministry now wants the industry to take action! They have offered to co-finance projects to implement and test the Welfare Quality® protocols in every farming practice over the next three years. So far the dairy, veal and broiler sectors have taken up the challenge to use animal-based measures to improve animal health and welfare. The degree to which the original WQ protocols are used varies considerably between sectors, but it is good to see that we are heading in the right direction!

*Hans Spoolder*  
<hans.spoolder@wur.nl>

## **Implementation of the WQ Protocols for Cattle and Pigs**

Researchers in the Animal Welfare Subprogram of IRTA are using the Welfare Quality® (WQ) protocols and philosophy in different projects and for different purposes. In some cases, the protocols are used as they stand, i.e. with no change, whereas in others, the WQ measures are complemented with additional measures based on management or facilities. In a third case, only some WQ measures are incorporated in our efforts to build a new protocol with new purposes. Another possibility is to use only the struc-



**Antoni Dalmau, IRTA**

ture of principles and criteria when developing new welfare assessment tools in new species.

The protocols for beef cattle on farm and in the slaughterhouse are being used in a joint project with a private company that intends to include animal welfare in its quality assessment and profile. Five different genetic lines housed in two different types of pens (150 animals per line) are being assessed three times during the growing period at the farm and once in the slaughterhouse in order to define the best conditions for improving animal welfare in the company. Assessments are carried out by IRTA researchers.

The assessment protocols for finishing pigs and fattening cattle at the slaughterhouse are being used by an organization that comprises the main slaughterhouses for pigs and cattle in Catalonia. In this case, the animal-based measures of welfare quality are complemented with new resource- and management-based measures and a method has been created for integrating the numerous welfare measures to obtain a final score (since no WQ integration system is yet available for finishing pigs and fattening cattle in the WQ protocols). The welfare assessment is carried out by personnel of the private organization after being trained by IRTA.

In a project funded by DG Sanco entitled 'Quality Control Post', only some measures of the WQ protocols for pigs and cattle were selected when we created a suitable protocol for

assessing the state of the animals in the control posts and to assess the animals' welfare after long journeys. In the case of pigs and cattle, measures from the farm protocol, such as body condition, social behaviour or integument alterations, and measures from the slaughterhouse protocol, such as slipping and falling or reluctance to move, have been incorporated. In addition, new protocols based on the WQ principles and criteria of good welfare have been developed for welfare assessment at control posts in sheep and horses. The assessments are carried out mainly by official veterinarians who have received prior training.

Finally, a project funded by the Italian national research programme, coordinated by Istituto G. Caporale from Teramo and with the participation of the Universitat Autònoma de Barcelona and IRTA aims to develop a protocol to assess the conditions and welfare of dogs in public and private shelters. This tool is also based on the WQ principles and criteria. For instance, measures such as body condition and cleanliness are included in the protocol as tests of the respective criteria of 'absence of prolonged hunger' and 'comfort around resting'. The assessment will be carried out by veterinarians after they have had a training course.

*Antoni Dalmau*  
IRTA

## **Links between Welfare Standards, Profitability and Carbon Footprint**

SRUC (formerly SAC) is running a project to investigate the links between animal welfare, and the carbon footprint, faunal biodiversity and profitability of individual dairy farms. Many questions have been raised concerning how farm profitability relates to the management and care of animals, and investigating these links will allow us to look at the issue from the farmer's point of view. In addition to delivering good animal welfare, farmers are increasingly being asked to deliver to schemes that aim to increase faunal biodiversity and reduce greenhouse gas emissions. Therefore, another aim of the project is to determine whether farmers are able to deliver on all of these aims concurrently. The study will involve visits to at least 30 farms in Scotland. The Welfare Quality® protocol will be used to collect animal welfare data, an SAC Consulting carbon audit will be used for the carbon footprint information, and management and field surveys will be used to assess biodiversity. Farmer inputs and outputs will be used to assess profitability.

*Marie Haskell*  
SRUC



**Welfare Quality Network General Assembly, Brussels, December 2012.**

## New Research Project in Belgium: Improving Aviary Housing Systems for Laying Hens

To what extent does the most commonly used non-cage system for laying hens, the aviary system, fulfill its promise as a welfare-friendly housing system superior to cage systems? The potential of aviary systems for better animal welfare and sustainable housing of laying hens does not appear to have been fully realized in practice. The current research project focuses on 5 major problems that compromise the uptake of this housing system: keel bone fractures and deformations, mortality, feather pecking, airborne dust levels and variable production results. In this cross-sectional observational study, researchers from the Institute for Agricultural and Fisheries Research (ILVO) are performing observations on at least 40 Belgian commercial laying hen farms with aviary housing, to determine the relationships between occurrence of the five major problems mentioned above and the overall welfare of laying hens (as measured by the WelfareQuality<sup>®</sup> protocol).

Potential associations between housing and management characteristics and hen welfare will also be examined. The results will guide a later study of the effects of modifying the aviary housing system or its management on hen welfare and farmer income. For example, at the



experimental animal units of the ILVO, we investigate the effect of two remedial measures (one related to rearing conditions and one to the production phase environment) on the incidence of keel bone fractures and deformities in hens housed in non-cage systems.

*Jasper Heerkens*

<jasper.heerkens@ilvo.vlaanderen.be>

## New Research Project in Belgium: Marketing Animal Welfare as a Quality Aspect of Milk (2012–2016)

This collaborative study between ILVO and Ghent University will apply the Welfare Quality<sup>®</sup> protocol for assessing dairy cattle. The project aims to evaluate opportunities for using animal welfare as a saleable quality characteristic in milk marketing strategies.

Citizens express a desire for improved farm animal welfare as an inherent aspect of product quality. In this project we will investigate how initiatives originating from within the dairy industry itself can help to meet this societal need. The industry initiatives aim to create added value by responding to consumer demands, and include science-based assessments of cattle welfare on Belgian dairy farms. The applicability of (parts of) the Welfare Quality<sup>®</sup> protocol for monitoring cattle welfare in a valid, repeatable and cost-effective manner will be investigated. It is also important to ensure that the method of welfare monitoring corresponds with the expectations of the various stakeholders. More specifically and importantly, we will determine to what extent a marketing strategy aimed at motivating consumers, and in turn retailers, to pay extra for milk produced in an animal-friendly manner can compensate for the costs associated with welfare monitoring and more animal-friendly production.

*Sophie de Graaf*

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## Personal Digital Assistant Software

At WUR we have developed PDA software for data recording according to the protocols for

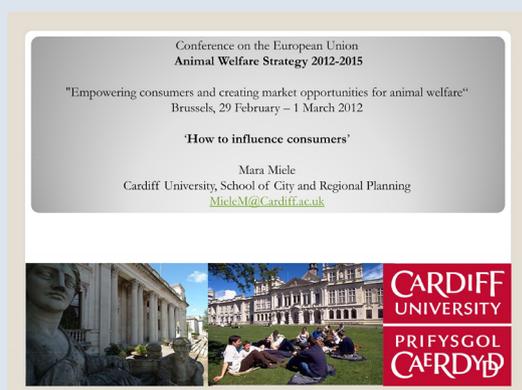
pigs, poultry, dairy and veal calves. Although some of the software is a little old, members of the Welfare Quality Network may still be interested in using it. The software comes free of charge, but we cannot give any support on it (if it doesn't work, it doesn't work!).

*Hans Spoolder*

## Library of Presentations

The Management Team would like to establish a library of presentations that have been given by WQN members on Welfare Quality® and/or WQN-related matters. If you have given any such talks we would be very grateful if you could send the PDF files to Mara Miele <joekroex@gmail.com> for uploading onto the WQN website. The language is immaterial. We do not expect you to submit your full presentation or all of your slides. We only require the name and place/date of the presentation and perhaps the first introductory slide (see example below). Any readers who would like to see the slides used for a particular talk should submit a request directly to the author of that talk.

*Mara Miele*



## Conference WAFL2014

The next WAFL conference will be held in Clermont-Ferrand, France, 3–5 September 2014. WAFL conferences offer opportunities to discuss issues related to the assessment of animal welfare and the conditions of use, such as farming conditions but also transport, slaughter, laboratory conditions, etc.:

- criteria to be included into a welfare assessment;
- welfare indicators and methods to validate them;
- automation of welfare measures;
- mathematical methods, e.g. statistics and integration to produce an overall assessment;
- rationales underlying epidemiological studies and risk models;
- ethical issues, consultation processes;
- implementation of welfare assessments in practice;
- assessor training;
- cost-benefit analyses of implementation of welfare assessment;
- communication of animal welfare assessment results to various parties;

The conference will constitute a forum to discuss and compare the Welfare Quality® assessment system with other systems used around the world.

*Isabelle Veissier*

Organiser of WAFL2014

## Book Announcement

*Improving Farm Animal Welfare: Science and Society Working Together: The Welfare Quality Approach*, Harry Blokhuis, Mara Miele, Isabelle Veissier and Bryan Jones (eds)

How do you define the quality of life of a farmed animal? This timely book addresses the complex and often controversial issues surrounding the assessment and improvement of farm animal welfare. Based on a large, multi-disciplinary EU funded research project called Welfare Quality®, it discusses the relevance of science based welfare assessments and the importance of establishing a fruitful dialogue between science and society. An outline is given of the development of a workable welfare assessment system for cattle, pigs and chickens as well as practical ways of improving the animals' quality of life.

This book synthesises the huge body of work carried out by the largest ever international network of scientists and stakeholders in Welfare Quality®. It describes some of the ob-

stacles encountered and their solution and why particular paths were chosen. It also clearly sets out what still needs to be done and presents selected strategies and technologies (automation, proxy indicators, targeting of risk factors, etc.) designed to ensure the continued improvement of welfare and its assessment.

The book provides a valuable source of knowledge on farm animal welfare for social and ani-

mal scientists, students, teachers, policy makers, lobby groups and the animal industry.

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<<http://www.wageningenacademic.com/Default.aspx?pageid=58&docid=16&artdetail=welfarequality-e&webgroupfilter=&>>

### *Colophon*

#### **WQNews is the electronic newsletter of the Welfare Quality Network project.**

This is a European network of researchers focusing on the updating, implementation and communication about the Welfare Quality® project's results. Twenty-six institutes and universities, representing thirteen European countries and four Latin American countries, participate in this network.

Welfare Quality Network has been endorsed by the European Commission (DG Sanco), and has received financial support from the Swedish Government and the Dutch Government.

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