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From the WQNetwork Coordinator...

Dear Partners,

I sincerely hope that you and your families and friends have stayed healthy during the ongoing pandemic. In one way or another we are all affected. We need to adapt our private lives and the way we work and deal with the fading borders between 'private' and 'work'. Like you, I suppose, I work a lot from home and I have become used to meeting and teaching as well as having departmental coffee breaks using Zoom, Skype, Teams, BlueJeans, Meet, etc. In between all this I have lunch with my wife at our kitchen table.

Recently, I have been preparing an EU proposal with some colleagues from the WQ Network using Zoom. I am convinced that the success of these meetings to a large extent depended on the mutual understanding built up over the years in WQ and the Network. I am also convinced that to build such mutual understanding we have to meet IRL (another term I learned during the past months: In Real Life). This is in my view one important function of the WQ Network and I hope this will soon be possible again.

Unfortunately, meetings IRL are not possible at this time and we had to postpone the seminar day and the General Assembly in Wageningen. However, we used Zoom to hold a virtual General Assembly and this was very successful (again building on long standing relations). We even had a record number of partners attending (19). But I am looking forward to a meeting IRL on October 13 and 14 2021 in Wageningen!

The Newsletter has several interesting topics that I'm sure you will enjoy reading.

This year the General Assembly was held on Zoom on 9th of October, 2020 and saw the participation of many partners in the Network.



Harry Blokhuis, Coordinator of the Welfare Quality Network

First Announcement Annual Seminar 2021

The next annual seminar of the Welfare Quality Network will be held on the campus of Wageningen University & Research in Wageningen, The Netherlands, on 13th October 2021.

It will be a full day event to discuss progress on animal welfare assessment, building on the WQ approach. For this meeting we invite contributions from scientists who have worked on the development of welfare assessment, and end-users who apply it for inspection or certification purposes. 'Science meets practice' will be the leading theme, and we envisage a diversity of delegates. For this, we have teamed up with the two EU Reference Centres for Animal Welfare (EURCAW-Pigs, and EURCAW-Small farm animals) who use the WQ 'legacy' on a daily basis to support the improvement of animal welfare in Europe.

As in previous years, the Welfare Quality Network will have its General Assembly in the morning of the following day (14 October).



The 2021 local organisers are Ingrid de Jong (ingrid.dejong@wur.nl) and Hans Spoolder (hans.spoolder@wur.nl) of Wageningen Livestock Research.

Please let them know if you want to present your work at the seminar, and as the meeting will be open to anyone who's interested: "spread the word!"

WQNetwork Qualification Outline

In 2020 the WQNetwork qualification system was modified by incorporating a new function: the qualified examiner. Some years ago, it was agreed that a candidate to qualify in using the Welfare quality protocols should demonstrate a capacity to effectively assess animal welfare while ensuring that the requirements of the Welfare Quality protocols were met. This should be determined using a written examination, tests against established reference materials, and a practical assessment on a real farm and, if required, at a slaughterhouse. It was also established that while candidates could be trained by any person of the Welfare Quality Network, the performance of the candidates would be assessed by the WQN examiner team, in other words, by the persons responsible for the various species. Due to the high demand for these courses in some countries (i.e. more than 100 people have been trained only for the dairy cattle protocol in Spain the last two years) and to provide a more flexible system, the function of the qualified examiner was created. A qualified examiner is a person that can conduct the exam process on behalf of the responsible expert for the species. To be a qualified examiner the person needs to be trained first and subjected to a calibration process regularly. In the case of an update of a protocol, all examiners need to be trained in the new aspects before they can be deemed qualified examiners of the new protocol. If a person from one of the members of the Welfare Quality Network wants to be a qualified examiner, the person needs to be trained by the responsible expert for the species. Once trained, a calibration process is required between month 18 and 24 after the last calibration (or training) or after the examination of 60 people (e.g., 4 courses of 15 persons each). The responsible team for poultry consists of Ingrid de Jong, Thea Van Niekerk and Henk Gunnink. Those responsible for pigs are Antonio Velarde, Antoni Dalmau and Joaquim Pallisera. The person responsible for cattle is Christoph Winckler. Moreover, Andy Butterworth

is a qualified examiner for broilers. The Welfare Quality protocols are living documents, with several aspects to be improved when science progresses. But already today they are a relevant tool and show the world that animal welfare can be assessed using animal-based measures in a multidimensional approach. If you have the opportunity to promote the use of the WQ protocols in your country, do so and if you need help in the implementation of a tool, please contact us. Full implementation is possible, and we can help you to do it. antoni.dalmau@irta.es

News from the partners

Update from the certification scheme in Spain

Welfare™ is an animal welfare certificate developed by the Institute of Agrifood Research and Technology (IRTA) in collaboration with the Basque Institute for Agricultural Research and Development (NEIKER) that applies the European Welfare Quality and AWIN® (Animal Welfare Indicators) protocols. The Welfare™ animal welfare certificate is now available on products of animal origin from more than 4000 supermarkets throughout Spain. The food categories in which we can currently find the Welfare™ certificate extend to meat products from bovine, pig and chicken (WQ); ovine and turkey (AWIN); rabbit (IRTA); eggs and dairy products such as milk, smoothies, and yogurts (WQ). Among the next launches it is planned to incorporate meat from goats (AWIN) and meat and eggs from quail (IRTA).

<http://www.irta.cat/es/welfare-la-primera-certificacion-de-bienestar-animal-que-se-centra-en-la-evaluacion-del-estado-y-comportamiento/>



Antoni Dalmau, IRTA, Spain.

Development of welfare self-assessment tools for PPILOW based on the Welfare Quality protocols

PPILOW stands for Poultry and Pig Low-input and Organic production systems' Welfare and is a Horizon 2020 project that aims to develop innovative strategies to improve the welfare of pigs and poultry in outdoor and organic farms. One of those strategies is to develop a good method for farmers to assess the welfare of their own animals. We hope that stimulating farmers to look more closely at the welfare of their animals will help them identify existing animal welfare issues and become more aware of risk factors for potential welfare issues.

With this in mind, two mobile applications were developed (PIGLOW app for pigs) and modified (EBENE® app for poultry) for farmers of free-range and organic farms to self-assess the welfare of their animals. The PIGLOW app was based on the Dierenwelzijnsscanner app developed by Boerenbond and ILVO, which was presented at the Welfare Quality Network meeting in 2018. PIGLOW and EBENE are available on the Google Play Store and on the App Store in three different languages: Dutch, English and French. The other five languages spoken in the countries of the PPILOW partners will also be added later in the project. The apps provide automated feedback including anonymous benchmarking and risk factors for welfare problems. The idea is that this feedback will prompt the farmer to discuss with staff, colleagues, the veterinarian or other advisors how the welfare of the animals could be improved.

When developing these apps, we gave preference to animal-based indicators, as it is proposed in the Welfare Quality protocols. The selected indicators were classified according to the four Welfare Quality principles Good Feeding, Good Health, Good Housing and Appropriate Behaviour to cover the main welfare dimensions. We then discussed the list of indicators with National Practitioners Groups in six European countries including representatives of feed producers, consumer associations, retailers, veterinarians, processors and farmers. They were asked for their opinion on the importance, feasibility and definition of the different

indicators. Following refinement of the indicators based on these discussions, prototypes of the apps were tested for comprehensibility and user-friendliness by pig and poultry farmers in Belgium and France. We used the farmers' feedback regarding for example feasibility, user-friendliness and clear wording of the questions to produce the final apps. The effect of the use of the apps on a larger scale and for a longer period of time will be tested in a longitudinal study. The PPILOW project has received funding from the European Union Horizon 2020 'Research and Innovation' Programme under Grant Agreement No. 816172.

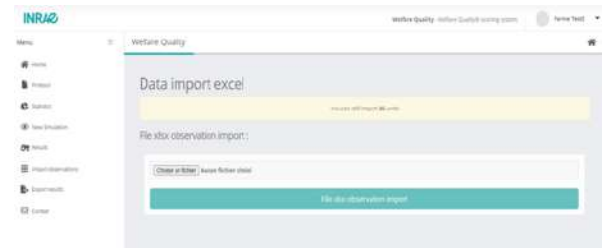


Laura Warin (ITAVI), Evelien Graat, (ILVO) and Frank Tuytens (ILVO), Belgium.

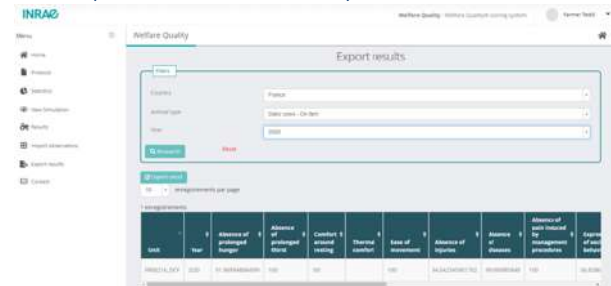
Wafa website reshaped

Welfare Quality developed a web app to calculate welfare scores according to the Welfare Quality protocols. The web app called Wafa is available at <http://www1.clermont.inra.fr/wq/>. INRAE worked on a new version of Wafa. This version enables you to upload data from farm visits yourself. On request, you will be attributed a login and password to access this service. You can then download a file with the scores obtained by each farm. A synthesis of the results is also shown in graphs or tables. As before, you can simulate results, by modifying data collected on a farm or by entering data manually. The new version of Wafa is available since January 11 2021.

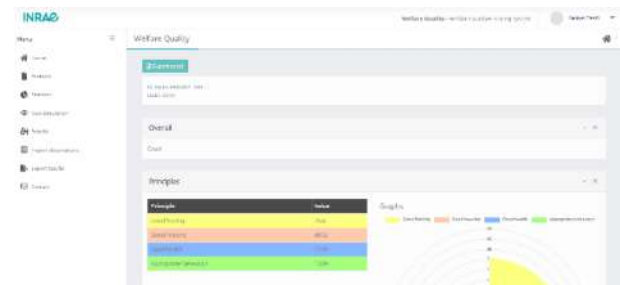
Wafa menu to download an Excel file of data



and export of results farm by farm



or on all farms



Yoan Gaudron, Romain Lardy, and Isabelle Veissier (INRAE, France)

WelfareMax initiative: Welfare Quality, a feature of the animal welfare world.

Animals are farmed and kept in huge numbers. Only a tiny percentage, about 5%, of the mass of animals on the planet are wild mammals and birds.

There are huge concerns about this growing imbalance – and many people fear that this shift in animal and human numbers is unsustainable, and destructive to the planet.

Those concerns will remain, but for as long as animals are kept and cared for by people and they are, and will be for the foreseeable future, in huge numbers.

WelfareMax www.welfaremax.com is a group of animal welfare experts and veterinarians who believe that where animals are being kept and cared for, then it is possible to 'do it well'. We believe that working with animal keepers and farmers to help them with knowledge and resources about the welfare of animals in their care, offers a realistic way to improve, and maximise animal welfare. We have worked in the areas of farmed, kept, and wild animal welfare. We work 'with' businesses to help them to maximise of animal welfare potential, and to create positive change. We usually visit the company, the farm, or the location where the animals are, and work out what the animal care and animal welfare needs of the business are. When we need other expertise, we invite people with knowledge and skills to work on projects which have specific requirements.

We have trained quite a large number of people in the Welfare Quality assessment system. The WQ system can form a foundation of understanding of animal welfare assessment principles based on welfare outcomes. An increasing number of researchers and agricultural businesses have now been exposed to WQ, and have either incorporated the ideas and concepts into their research, or are using the WQ assessment methods as the basis for animal welfare within farm assurance.

Working with the animal carers and the business to collect information, we help to create standards,

manuals, resources, SOPs or workshop material, or to facilitate meetings. We run training courses in animal welfare and animal welfare assessment for a wide range of farmed, managed, and wild species. We also work with the business to can carry out welfare assessments of farming or other animal systems and write reports on our assessments, and use animal outcome methods wherever possible to carry out welfare assessments. These assessment reports have proven to be useful commercial tools in understanding and maximising animal welfare. Despite Covid travel restrictions, we continue to write standards and carry out training and welfare focussed facilitation meetings.

Welfare Quality is a recognised feature of this animal welfare assessment world, and we are pleased to be involved in advocating the use of animal outcomes, and Welfare Quality.

"Animal welfare is as much about the people who look after the animals, as it is the animals themselves."

Andy Butterworth www.welfaremax.com



UK retailer Waitrose to pioneer new QBA app


Recently UK retailer Waitrose formed a partnership with animal welfare scientist Françoise Wemelsfelder at SRUC in Scotland, to explore the use of Qualitative Behaviour Assessment (QBA) for creating greater focus on the emotional well-being of animals in Waitrose 'own brand' supply chains. QBA measures expressive qualities of behaviour (e.g. relaxed, joyful, or anxious, tense), integrating these into patterns of positive and negative mood, and is part of the Welfare Quality protocol as an indicator for 'positive emotional state'. Waitrose recognises that in addition to good feeding, good housing and good health, the freedom to express positive emotions is crucial to farm animals' welfare. We must acknowledge, Waitrose says, that animals are fellow sentient beings with their own perspective on life, who want to engage, choose, make decisions and become competent in creating a life, not just consume resources. With the help of QBA, they anticipate, they will be able to better address what life is like for animals on farm and make better decisions about their emotional needs. A key innovation in this work is a new 'stand alone' QBA app that is currently in development at SRUC. Waitrose are licensed for a 2-year period of exclusive use of this app in the agricultural industry, but after this time the app will become available for wider use.

https://www.waitrose.com/home/inspiration/about_waitrose/the_waitrose_way/waitrose_animal_welfarecommitments.html



Prof. Françoise Wemelsfelder, SRUC, Edingburgh,UK

PhD Course at SLU in 2021



PVS0155 Animal Welfare and the UN Sustainable Development Goals, 3.0 credits

PhD course arranged by Graduate School for Veterinary Medicine and Animal Sciences (GS-VMAS)

Course date: June 28 – July 1, 2021
Location: Uppsala (If not possible due to the pandemic, digital)

Content
After completing the course the PhD students shall be able to:

1. Assess relationships between animal welfare and the UN sustainable development goals and integrate animal welfare issues with their relevant sustainable development goals.
2. Relate their own research to animal welfare and the UN sustainable development goals.
3. Map and present some major knowledge gaps related to animal welfare and sustainable development.
4. Actively participate in cross-disciplinary discussions on future challenges and solutions related to animal welfare and sustainable development.

The course will include 4 days (3 nights) physical meeting in Uppsala (if not possible due to the pandemic, digital), and reading and individual project work before and after the meeting. It will include workshops and student based learning activities. Activities will include interactions and cross-disciplinary knowledge transfer with other students and at least three internationally well-known researchers, at least one working with animal welfare and one working with sustainable development. Although having its primary focus on farm animals, the course will be relevant to students working with all categories of animals.

Prerequisites
Admitted to a postgraduate program in animal science, biology, veterinary medicine, food science, nutrition, nursing, or related subjects, or to a residency program in veterinary science.

Information and application: www.slu.se/gs-vmas-courses
Course organizers: Anna Wallenbeck (anna.wallenbeck@slu.se)
Gabriela Olmos Antillón (gabriela.olmos.antillon@slu.se)
Anette Wichman (Anette.Wichman@slu.se)

Last date for application: May 31, 2021

Sveriges lantbruksuniversitet
Swedish University of Agricultural Sciences
www.slu.se

10th Anniversary Workshop, 2019 -Uppsala University



Swedish University of Agricultural Sciences
Uppsala, Sweden

Last Annual Workshop of the Welfare Quality Network celebrated the 10th anniversary from the end of the Welfare Quality project. It was organised by Harry Blokhuis and held at Uppsala University on the 22nd of October, 2019. It preceded the General Assembly which was held on the 23rd of October 2019.

The seminar was well attended and with nearly 40 participants and consisted of 12 paper presentations from researcher, retailers and industry representatives from Sweden, Italy, Brazil, Spain the Netherlands, Finland and the UK. The presentations were chaired by Harry Blokhuis. The talks addressed a range of topic strictly connected with the Welfare Quality assessment and monitoring approach and indicated areas of future developments, as evidenced by the abstracts here below. They covered a wide range of issues from more theoretical such as current advances on measuring animal emotions, to examples of certification schemes that adopt the Welfare Quality protocols in several countries worldwide, to farmers and inspectors' concerns on animal welfare on farm animal welfare inspections and the challenges of monitoring and assessing on farm animal welfare in a rapidly changing production environment.



Mara Miele, Cardiff University, UK

Welfare Quality Network Seminar 22.10.2019

ABSTRACTS

Programme

08:30 Mingle, coffee/tea

09:00 Welcome

Harry Blokhuis, Swedish University of Agricultural Sciences, Sweden

09:15 Welfare Quality and the Swedish animal welfare legislation, possibilities and limitations

Helena Elofsson, Swedish Board of Agriculture, Sweden

09:45 The AssureWel Approach: Developing and Using Welfare Outcome Assessments for Farm Assurance
Sophie Collins, RSPCA Assured, United Kingdom

10:15 Coffee break

10:45 The animal welfare assessment in Brazil from a brazilian certification body perspective

Matheus Witzler, SBC, Brazil

11:15 How animal welfare is addressed by an international retailer

Michaela Reischl, Lidl, Spain

11:45 Welfair™. A trademark developed by IRTA and NEIKER for certification purposes using the Welfare Quality and the Awin protocols.

Antoni Dalmau, IRTA, Spain

12:15 Video, Juustoportti, Finland

12:30 Lunch

13:30 Where are we now with Welfare Criterion 12: positive emotional state?

Linda Keeling, Swedish University of Agricultural Sciences, Sweden

14:00 "Quality Handling": further development and introduction of new training methodologies

Marko Ruis, Wageningen University and Research

14:30 Dynamic animal welfare assessment in rapidly changing farming systems: how can we adapt?

Marta Brscic, University of Padova, Italy

15:00 Can we improve the measures within the principle 'appropriate behaviour' of the Welfare Quality® broiler assessment protocol?

Ingrid de Jong, Wageningen University and Research

- 15:30 Coffee break
16:00 Comparison of the official animal welfare control in Sweden, Ask the Cow and Welfare Quality®
Birgitta Staaf Larsson, Swedish University of Agricultural Sciences, Sweden
16:30 The riddle of measuring animal welfare: farmers and farm inspectors views on official inspections
Mara Miele, Cardiff University, United Kingdom
17:00 Closing

Welfare Quality and the Swedish animal welfare legislation, possibilities and limitations

Helena Elofsson

Head of Animal Welfare at the Swedish Board of Agriculture

In Sweden, a new Animal Welfare Act came into force 1 April 2019. Its aim is to prevent animal suffering, and to promote good welfare and respect for animals. The protection of the animals shall be ensured by the specific provisions in the Act and in regulations issued under the Act. The Act also goes beyond mere prevention in stating that animals should be kept and maintained in a good animal environment and in such a way that it promotes their welfare and allows them to behave naturally. The possibilities and limitations of using Welfare Quality in Swedish animal welfare legislation and control will be discussed, as well as the possible use of Welfare Quality for promoting animal welfare well above the level of legislation.

The AssureWel Approach: Developing and Using Welfare Outcome Assessments for Farm Assurance

Sophie Collins

RSPCA Assured, Wilberforce Way, Horsham, West Sussex, UK

The AssureWel project was established in 2010 as a collaboration between the University of Bristol, Royal Society for the Prevention of Cruelty to Animals (RSPCA), Soil Association, and these organisations' farm assurance schemes, RSPCA Assured and Soil Association Certification. The overarching aim of the project was to improve farm animal welfare by firmly embedding the use of welfare outcome assessments in UK farm assurance scheme audits. To do this we had three specific objectives: develop bespoke outcome-based assessment protocols

designed specifically for use during a scheme audit; install the use of these protocols into RSPCA Assured and Soil Association Certification auditing procedures, and encourage other schemes and farming industry stakeholders to use welfare outcome assessments. The AssureWel project began at a time when much research had been undertaken into outcome-based measures of welfare, including projects such as the Bristol Welfare Assurance Programme and Welfare Quality®. A persisting challenge, however, was the feasibility of implementing developed protocols on farm - something of particular relevance to farm assurance, as scheme assessors already undertake detailed assessments of the animals' resources and management. A key element of the AssureWel project's brief, therefore, was to design protocols which were highly feasible (i.e quick and easy to implement) yet still sufficiently robust. The project was completed in 2016 and welfare outcome assessments are now used during RSPCA Assured and Soil Association Certification audits for laying hens, chicken, finishing pigs, dry sows, dairy cattle, beef cattle and sheep. Allowing both schemes to better understand the level of animal welfare being achieved across the membership and informing plans regarding welfare improvement. This presentation provides an overview of the AssureWel project and the resulting AssureWel protocols, noting the influence of Welfare Quality® and the similarities and differences between the two sets of protocols. It will also provide an update on the current status of RSPCA Assured's work with welfare outcomes and our plans to use our welfare outcome data to drive continuous improvement in animal welfare on our members' farms.

The animal welfare assessment in Brazil from a brazilian certification body perspective.

Matheus Witzler

SBC, Brazil

The objective of this presentation is to introduce the Brazilian company SBC – Serviço Brasileiro de Certificações, its operation market and its outreach, in order to propose a discussion about possible ways of assessment implementation following the WQ methodology, considering the Brazilian reality. SBC is a certification body focused on auditing agricultural and livestock production protocols, which has been active in Brazil for more than 15 years. Currently, the company

certifies around 40% of the Brazilian rural properties that export bovine meat to Europe, what represents almost 2 million animals per year. Besides that, the company attends the main slaughterhouses of the country, auditing protocols that include topics regarding animal welfare. However, nowadays in Brazil, the tools for animal welfare assessment are still not enough and if, on the one hand, a lot has been developed inside the industries, through training people involved in animal handling, on the other hand, it is observed that in the field, which means in the rural properties, there are still no objective methods implemented to permit this assessment. Considering this reality, SBC has interest in developing ways to apply the assessment methodology provided by WQ, taking into account both at the industry and the field. For that matter, it is believed that there are some points that need attention regarding animal welfare assessment in Brazil: the feedlot production, the live cattle export and the moment that precedes the slaughter in the industry. Finally, it is also our interest to extend this project to the production chain of other species such as swine and poultry.

How animal welfare is addressed by an international retailer.

Michaela Reischl, Víctor Zaccaria and Marco Drauth
Lidl, Spain

Animal welfare is one of Lidl's main priorities within their goal to be the most sustainable supermarket in Spain. Aware of their responsibility, the company is committed to improve all aspects of farm animal's life quality ensuring that, among others, the animal is in good health and well-nourished as well as offering an appropriate environment for them to rest and develop. Together with their suppliers, Lidl is promoting pioneer animal welfare projects in Spain, adding value to their products (meat, milk, eggs...) without increasing the retail price for the customer.

Welfare™. A trademark developed by IRTA and NEIKER for certification purposes using the Welfare Quality and the Awin protocols.

Antoni Dalmau, Joaquim Pallisera, Aida Xercavins, Aranzazu Varvaró, Xènia Moles, Carmen Fernandez, Pau Batchellí, Antonio Velarde

IRTA. Animal Welfare Program. Veinat de Sies S/N. Monells. 17121. Girona. Spain. antoni.dalmau@irta.es

In 2013 different Certification companies in Spain consulted IRTA about the possibility of jointly develop a common Animal Welfare Certification for livestock. The researchers at the Animal Welfare Programme at IRTA begun what has resulted in an extremely successful pilot project with AENOR. Between 2014 and 2018 over 50 Spanish companies have received the Animal Welfare Certification "based on Welfare Quality®". The increasing demand for the Animal Welfare Certification led by IRTA has forced to redesign the certification in order to be able to meet it. It is with this perspective that IRTA decided to become Scheme Owner for the Animal Welfare Certification "based on Welfare Quality®". The new Scheme opens the door to other certifying bodies to operate within the Scheme Owner under the same certification scheme. In addition, Neiker, a membership of the European project Awin, was incorporated to the schema and with their help it was created the trademark "Welfare™" that incorporates the Welfare Quality and Awin protocols covering most of the production species. The certification scheme details all the conditions required to obtain the certification, such as the audit frequency, training of the auditors, traceability to achieve product labelling, supervision of the auditor's performance by IRTA, and many others. During last year 120 prospective auditors have been successfully trained for carrying out farm inspections according to the new protocols (35 in swine, 9 in beef cattle, 40 in dairy and 24 in poultry). Among the total participants, there were several personnel from certifying bodies.

Where are we now with Welfare Criterion 12: positive emotional state?

Linda J. Keeling

Department of Animal Environment and Health, Swedish University of Agricultural Sciences, Uppsala, Sweden.

linda.keeling@slu.se

In the Welfare Quality® protocols, the welfare criterion for positive emotional state is assessed using only qualitative behaviour assessment (QBA). This was because no other valid and reliable animal-based measure of positive emotion was found during the project. How is the situation ten years later?

Unfortunately, it is turning out to be difficult to identify feasible indicators of positive emotion in animals.

Research in this area has progressed and there is considerable interest in the general area of 'positive welfare'. There is a greater understanding of the theoretical and evolutionary background to positive states, but there are still very few validated and repeatable animal-based measures. The best studied is the 50 Hz vocalisation in rats, that is associated with play. Play behaviour is probably the most promising indicator for positive emotional state in welfare assessment. Furthermore, it is easy and intuitive for consumers and therefore also of interest to retailers. Nevertheless, using it in an assessment protocol is not without problems, the main ones being that play is rare in adult animals and time consuming to observe in animals of any age. Other potential animal-based measures of positive emotion include observations of exploration, grooming, affiliative behaviour and synchronization. An optimistic judgement bias may also be associated with a positive state, as can certain body positions or facial expressions. However none of these, even today, are sufficiently well developed to be included in a Welfare Quality® protocol.

Besides reviewing some of the work on indicators of positive emotion, a key question is whether it is just a matter of time before we can identify additional animal-based measures of positive emotional state, or is assessing a positive state somehow inherently different from assessing a negative state?

"Quality Handling": further development and introduction of new training methodologies

Ruis, M.¹, Waiblinger, S.²

¹Department of Animal Health and Welfare, Wageningen Livestock Research, P.O. Box 338, 6700 AH Wageningen, The Netherlands

²Institute of Animal Welfare Science, Vetmed Uni Vienna, Veterinärplatz 1, A-1210 Wien, Austria

The training program Quality Handling was developed within the Welfare Quality® project. It was created for (future) pig, cattle and laying hen farm farmers and stock people, in the recognition of the crucial influence they have on the welfare of the animals under their care. It is also of interest to farm advisors and technicians in order to make them aware of the importance of attitudes towards handling and the quality of handling to improve the productivity on-farm. The program emphasises the

important relationships between stockperson attitude, stockperson and animal behaviour, animal stress, productivity and welfare. The program is inspired from similar programs successfully developed in Australia (ProHand®). Quality Handling was tested with stock people, and it was shown to increase positive general and behavioural attitude, and also the % of positive behaviours towards animals (Ruis et al., 2010).

Quality Handling was developed as a computerised training program that includes a self-report questionnaire, as well as group discussions, without a practical training part. It is available on DVD in different languages. Despite the existing international interest for this topic, the technical requirements for training courses made the program less appealing. It is also not best suited to apply this in a traditional classroom situation with students. Other learning methods seem more promising. Blended learning, for instance, combines instant access to learning materials - by methods of elearning-, with traditional face-to-face learning. This provides a greater flexibility of learning, and still offers the opportunity to keep track of individual learners' progress. In the Netherlands, the pig and cattle programmes are currently converted into elearning. It is aimed to develop these into blended learning, by combining online learning with on-farm training. In Austria, the cattle program is converted into elearning that can be combined with interactive group sessions and hand-on training.

Dynamic animal welfare assessment in rapidly changing farming systems: how can we adapt?

Marta Brscic

University of Padova, Italy

The aim of this contribution is to raise concerns/questions related to the need of welfare assessment protocols that can be modified rapidly to include ongoing changes on-farm oriented towards the consumers' demands and the legislative framework. Some examples are the potential inclusion of hi-tech outcomes (e.g. biomarkers, activometers) into well established and widely used animal welfare assessment protocols and how protocols could be adapted to the different levels of technology implemented on-farm (e.g. robotic milking, sensors, incubators, etc.). Increasing attention to different animal categories could also question the possibility of the protocols to evaluate the welfare level of all the animals

simultaneously present on the farm (e.g. working dogs, whole herd from newborn to retired animal), or consider the animal genetics (e.g. breed resilience), along with farm economics and efficiency and some human-related issues like staff safety, among others. A further concern that will raise attention towards animal welfare assessment protocols and their outcomes might be linked to the 17 sustainable development goals (SDGs) of the United Nations, how could the protocols fit into these goals and which are the goals that the animal welfare scientists could aim for. An example of research aiming at the 12th SDG “Responsible Consumption and Production” will be discussed with all the unsolved questions related to the topic that need more multidisciplinary and interdisciplinary approaches involving a whole sector and re-education for change.

Can we improve the measures within the principle ‘appropriate behaviour’ of the Welfare Quality® broiler assessment protocol?

Ingrid C de Jong, Johan W van Riel, Tosca Hoevenaar, Thea van Niekerk

Wageningen University and Research, Wageningen
Livestock Research

First, it was tested whether or not a scan sampling technique can be used as a relatively quick, simple scoring of the behaviour in commercial-size broiler chicken flocks, and could thus be included as a measure of appropriate behaviour in the Welfare Quality® broiler assessment protocol. Four existing datasets were analysed, these were collected for different purposes but were based on the same sampling technique, i.e. counting the number of broilers engaged in different behaviours using direct observations, at different time intervals and at different locations in the house. Analysis showed that various factors affected the outcome. Whereas those such as observer, time of the day and location could be taken into account when designing an observation protocol, it must first be determined how to take into account the effect of subsequent scans, the apparent difference between flocks and genetic strains, and the effects of different behaviours. This is important when e.g. thresholds need to be set or scores reliably assigned regarding the

prevalence of birds showing certain behaviours during a farm visit. Second, we studied whether alternative measures (rather than distance to observer or a novel object) could be used as indicators of fear in broiler chickens. This study was carried out at an experimental farm. The results showed that both distance to observer or novel object and behaviour of the bird (alert body posture, neck posture, body position towards object or observer) seemed to be valid indicators of fear, however, when a relatively short time is available for testing, the birds’ behaviour should always be measured as older broilers need more time to move away.

Comparison of the official animal welfare control in Sweden, Ask the Cow and Welfare Quality®

StAAF Larsson, B.¹, Holmberg, M.², Winblad von Walter, L.¹, Stéen, M.¹, Dahlborn, K.¹

¹Department of Anatomy, Physiology and Biochemistry, SLU

²National Veterinary Institute

Three available assessment systems for evaluating animal welfare (AW) in dairy herds in Sweden was investigated; 1) The official AW control, 2) Växa Sweden's program ‘Ask the Cow’, 3) The Welfare Quality® assessment protocol for dairy cows. The official AW control mainly use resource-based measures while Ask the Cow and Welfare Quality® systems use animal-based measures. As reference data, parameters from the Swedish Dairy Data Base was used. The data was collected from 41 herds in four Swedish counties, 22 herds with cows housed in tie stalls and 19 herds with cows in loose housing systems with a mean size of 65 cows (range 12-268).

The aim was to answer the following questions; 1) Will the farms be ranked equally within each assessment system (the official AW control, Ask the Cow, Welfare Quality®)?, 2) Which parameters contribute most within and between systems to rank the herds according to AW?, 3) Can animal-based parameters strengthen the Swedish official AW control?

The results showed that the systems ranked the herds in different order. Totally, the official AW control had 55 remarks. In Ask the Cow the parameters dirtiness, lameness, ecto-parasites, lesions, body condition score, asymmetric or long hooves, competition at the feeding

table and caudal licking explained 60% of the combined AW scoring. In Welfare Quality® the parameters behaviours, dirtiness, human-animal interaction, vulvar discharge, eye disease, coughing, social behaviour, lesions, and body condition score explained 62% of the combined AW scoring. Both Welfare Quality® and Ask the Cow had high scores for dirty cows at 50% and 33% respectively of the investigated herds, but dirtiness was observed only twice using the official AW control.

The riddle of measuring animal welfare: farmers and farm inspectors views on official inspections.

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At present European animal welfare legislation and inspections are focused on the resources provided to the animals, whereas farmers tend to rely on their knowledge of animals and look at the animals' body in order to assess their welfare. These divergent approaches might lead to misunderstanding between inspectors and farmers. In a case of dairy production in France we looked at the opinions and concerns of both farmers and inspectors about the official on farm animal welfare inspections, in order to identify gaps and commonalities between them. To this aim, we interviewed 22 farmers and their 19 inspectors. We did not find divergent beliefs about animal welfare between the two groups and both groups shared some concerns about the legislation and the inspection procedures. In both groups, we highlighted difficulties in understanding some requirements of the legislation. In addition, while farmers criticized the use of a checklist, which they found inappropriate to assess animal welfare, inspectors themselves reported that they often use their own criteria and measures in addition to that checklist. In both groups, we found a larger proportion of interviewees that described animal welfare in terms of the state of the animal rather than in terms of the resources provided to them.

These findings suggest that to improve the perception of official controls for animal welfare, the content and background of the legislation to protect animals should be made clearer to both farmers and inspectors and these latter should be involved in the definition of key-points to be checked on farms, with a special attention to animal-based measures. This could improve farmers' engagement with the results of the inspections and, hopefully, could lead to the implementation of animal welfare improvements on farms.



Call for papers for a special issue on *Animal Welfare Labelling of Frontiers in Animal Science Animal Welfare and Policy.*

Guest Editors Harry Blokhuis and Mara Miele

The Research Topic web page can be found here: <https://www.frontiersin.org/research-topics/18810>

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There are an increasing number of control, certification and labelling schemes that aim to provide information on animal welfare implemented by public authorities, private actors and combinations of these. The information related to the welfare status of animals generated by these schemes and controls takes different forms depending on the intended use. Five broad groups of information demand may be distinguished (Blokhuis, 2018; Miele and Lever, 2013, Miele and Evans, 2017):

1. To inform society about the welfare status of farm animals.
2. To give food retailers/restaurants the opportunity to brand products or their corporate identity and provide an important tool for market segmentation and for creating opportunities for gaining a premium price.
3. To allow consumers to purchase products from animals with assured welfare.

4. To provide farmers and other chain actors (transporters, slaughterhouses) with data to manage and improve animal welfare.

5. To regulate animal protection and to check compliance with legislation.

Information is often used for more than one purpose. But even when used for the same purpose, different measures are used and there is no internationally agreed mechanism for recognizing the equivalence of animal welfare schemes. This lack of standardization is confusing for consumers and complicates international trade. There is a clear need to further define the characteristics of measures in the context of the various purposes, to analyze and describe the advantages and limitations of schemes and labelling in general.

Standards are being developed at the global, regional, and country levels. Thus, the European Commission is currently considering animal welfare labelling as part of a food labelling framework to empower consumers to make sustainable food choices, with the World Organisation for Animal Health (OIE) developing international standards on animal welfare.

Initiatives as well as global developments related to trade should be based on sound scientific evidence and knowledge. In depth single issue and multidisciplinary approaches are needed.

This Research Topic aims to bring together contributions addressing the following themes:

- The role of standards in on-farm welfare management
- Welfare and productivity/economy/trade
- Perception of labels
- Willingness to pay
- How to standardize various labels
- Product brands and social media
- Animal welfare certification of suppliers and Retailers' Corporate Social Responsibility
- Governance of labelling

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Recent Publications from the Welfare Quality Network Partners

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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 Sante), and has received financial support from the Swedish Government and the Dutch Government.

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