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Content

Editorial

Dear readers,
E-learning is in. Therefore, parallel to the classic offline courses, QS is also extending its range of online further trainings. Read more about this topic on page 1.
On page 4 we report on the funding of the project called “PPP-Infos”, in which, for the first time, already existing official and private sector own data on animal welfare and animal health were integrated and evaluated. The result of the evaluation can serve as a basis for the consultation provided by the farm veterinarian, up to the implementation of measures by the corresponding veterinary authority and should contribute to the optimization of the farming systems.
Your QS team wishes you an interesting read!

Joint assessment of animal health

Integration of official and private sector data

A standardised preparation and evaluation of data, that allows the drawing of conclusions about animal health and animal farming or enables the identification of concrete deficits - this was the aim of a joint project between BALVI GmbH (information processing), the University of Veterinary Medicine Hannover and QS. After a project period of three years the results are now being summarized.

As part of the project, a first data information system was created. Through the targeted integration of existing data from salmonella monitoring, antibiotics monitoring, the collection of slaughter diagnostic data, as well as data from the farms (mortality rates) and veterinary inspection offices (information on animal welfare violations), an effective instrument for the prevention, early warning and elimination of irregularities in animal farming was developed. For the first time ever, such diverse and different data were gathered and used for a holistic approach. Different information can be extracted from the combination of the data, depending on the question and the user. This makes it possible to identify at an early stage, whether a farm presents any abnormalities with regards to animal health - at the same time for all the users involved: this is primarily the farmer himself and, if he has authorized the data, the veterinary inspection office, the veterinarian or even QS, as well. Each of these users can, according to his intended role, retrieve processed data and use the results. **“By combining all the data, we are making it possible to comprehensively evaluate and classify the livestock farms,”** explains **Thomas May,** who accompanied the project on behalf of QS. **“The work of all the involved parties - whether farmers, veterinarians, authorities or QS – would be easier if in the future they could carry out analyses and evaluations in a single database and on the basis of uniform input data.“** **Johannes Röring,** President of the Westphalian-Lippe Agricultural Association, adds: **“This is data from farmers that is not available to third parties without their consent. Farmers have other expectations on a database than the authorities and the private sector. A central database, in which all the results from the monitoring programmes and analyses are stored, offers farmers excellent evaluation and comparison possibilities for their own farm management. This enables them to react in a timely manner, if necessary. With such a solution, we have also taken the first step towards setting up an animal health database.“** The results of the project prove for the first time, that it is possible to use different data from several sources for a joint examination and evaluation. This allows to explore

possible correlations between diagnostic data and antibiotics use, as well as mortality in the live stock. BALVI GmbH, a company specialised in the processing of information on animal health, as well as food and feed safety, has developed a demonstrator ("information and service platform") for data exchange and data evaluation. The data assessment and indices development were undertaken by the University of Veterinary Medicine Hannover. All results were critically examined in practical projects with more than 40 participating pig fattening farms - which provided data for this project - as well as by three of the supplied slaughterhouses and two responsible veterinary inspection offices. ■

QS laboratories deliver reliable results

Laboratory performance assessment for feed and ring tests for salmonellae prove high analysis quality of laboratories

To ensure the analytical quality of the QS-approved laboratories, all laboratories regularly participate in laboratory performance assessment and interlaboratory comparisons organized by QS. This is a key instrument in achieving comparable analysis results and a sustainable and consistent high-level performance of the laboratories. The appraisal of the laboratory performance assessment for feed and the salmonella interlaboratory tests confirm that QS-approved laboratories can be relied upon.

With the laboratory performance assessment for feed, which will be regularly repeated in the future, and the annual salmonella ring test, QS objectively puts the analytical quality and performance capabilities of the approved laboratories to the test. The periodical performance checks pay off for all parties involved. The participants from the private sector can rely on the analyses carried out by the laboratories. **"There is now a good number of laboratories providing clearly correct results. The QS performance assessments have significantly contributed to this achievement",** highlights **Birgit Maier-Stein,** specialist for quality management at the German Animal Nutrition Association (Deutscher Verband Tiernahrung e.V.) and corroborates: **"The QS-approval is a good reference for anyone looking for a laboratory - an important contribution for the entire industry."**

QS LABORATORY PERFORMANCE ASSESSMENT FOR FEED PROVES RELIABILITY OF ANALYSIS RESULTS

The results of this year's laboratory performance assessment for feed attest the high analytical quality of the laboratories in QS feed monitoring. 52 laboratories from six countries (Germany, Denmark, France, Italy, the Netherlands and Austria) received samples of maize flour, which they had to analyse for dioxin-like polychlorinated biphenyls (PCBs) in a given timeframe. 41 laboratories met the challenge successfully, 29 of which were absolutely error-free. Eight laboratories did not identify only one or more individual compounds of the parameter dl-PCB, two others made too many quantification errors. Each laboratory receives individual feedback and - depending on the test result - is requested to take improvement measures. Thus, the laboratories benefit from the tests, because they gain awareness of their own weak spots and have the possibility to improve the quality of their analyses accordingly.

VALIDITY OF LABORATORY RESULTS OF SALMONELLA MONITORING CONFIRMED

Once a year, QS carries out a ring test with the laboratories that work for QS in the salmonella monitoring. In this ring test, the laboratories must test 10 serum and 10 meat juice samples from pigs for antibodies against salmonella, using one of the three recognised salmonella test kits. Also in this case, the latest evaluations prove that the laboratories provide valid test results: 28 of the 29 approved laboratories passed the last salmonella ring test. ■

Collection of diagnostic data for poultry

The current status

QS collects animal welfare indicators during the slaughter of fattening turkeys and broilers in a diagnostic database since the beginning of 2018. To this day, data records for about 915 million slaughtered animals have been gathered.

The slaughterhouse registers for every slaughter batch the information corresponding to foot pad health, animal mortality during transport and stock mortality. The condition of the foot pads allows an estimation of the quality of the bedding, climate, feed, intestinal health and farming conditions. The stock mortality provides indications related to the health status of the flock. Transport losses reveal evidence on the vitality of the flock and the proportion of weakened animals.
In cooperation with Prof. Dr. Robby Andersson from the University of Applied Sciences Osnabrück, the incoming diagnostic data will be evaluated in a timely manner. The possibilities for a future feedback to the poultry farmers will also be discussed with experts from the industry. The poultry fatteners should thereby receive additional information in the future, which they can use in their farms for the further optimization of the animal health. Slaughterhouses with a slaughtering capacity of more than 500 turkeys or more than 4,000 broilers per hour, must record the foot pad changes via a camera-based system. The camera settings are highly relevant for the obtention of reproducible results. This implies regular cleaning and maintenance, as well as verification and calibration. Therefore, the corresponding specifications for the proper operation of the camera system must be included in the company's quality management manual. These specifications are checked within the frame of the regular QS audits. ■

QS Science Fund sponsors new projects

124.000 € for research on animal health, food and feed safety

The Executive Board of the QS Science Fund Meat and Meat Products approved in October the support for five research projects. The projects of the University of Vechta, the University of Veterinary Medicine Hannover, the Free University of Berlin, as well as the Max Rubner Institute in Kulmbach, and the University of Hohenheim will be funded with a total amount of 123.953 Euro.

- The research project of the University of Vechta aims to develop an online tool for the farm's individual risk assessment of animal disease pathogens, with emphasis on the African Swine Fever (ASF). The "ASF risk traffic light" will be available to pig farmers on the internet and free of charge.

- Pig farming is also the focus of the research project of the University of Veterinary Medicine Hannover. The research team is working on a vaccination strategy to minimise the Salmonella typhimurium load in sows and young sows.

- The Free University of Berlin is investigating the sources of Listeria monocytogenes into the food chain. In this case, conclusions should be particularly drawn as to whether disease-causing strains of the pathogen in pork products enter the food chain via infected fattening pigs, or whether they originate from the slaughterhouse and processing environment.

- A comparative study with regards to the amount of bleeding per time unit and the degree of bleeding in slaughter pigs, under the consideration of several parameters, is carried out by the Max Rubner Institute in Kulmbach. The results should facilitate the assessment of practicing an animal welfare-friendly killing by blood withdrawal and support the development of automated control procedures of the bleeding process.

- The University of Hohenheim is testing a rapid test method for the detection of mycotoxins in animal feed and cereals. The aim is to assess the practicability of innovative imaging methods for the agricultural sector. The results should be used later for the development of cost-effective detectors for a comprehensive mycotoxin monitoring.

PROJECT COMPLETED AT THE UNIVERSITY OF GIESSEN: NO SOLUTION AGAINST TAIL BITING

A research project funded by the QS Science Fund of the Justus Liebig University in Giessen finalised in October. The project researched the possibilities for the prevention of tail-biting in weaned piglets. The team around Prof. Dr. Steffen Hoy and Ina Jans-Wenstrup investigated in a sow-rearing farm, whether the use of different pellets, in addition to the standard feed ration, can be a solution against tail-biting in piglet rearing.
A total of 1,376 not tail-docked, and 1,190 tail-docked piglets were compared in the study. The results show that there is currently no (reproducible) solution in sight to prevent tail-biting. Neither the addition of pellets to the food nor the gender, the mother's genotype, the conditions during rearing, the group size or other factors had an influence on the frequency of partial or total losses of the tail.
According to the authors of the study, the cause of tail-biting is a high motivation of the animals to be active. The scientists suspect that interactions with the rest of the piglets in the pen are apparently more interesting for them than the occupation with "inanimate" objects. Instead of the previous approaches, the new solutions developed against tail-biting should have a higher attractiveness for the animals by offering different, changing stimuli. ■

Since its creation, the QS Science Fund has supported research projects with a total volume of 667,000 €. You can find the results of all completed investigations as well as an overview of all funded projects at **www.q-s.de/qs-scheme/qs-science-fund.html**

Digital knowledge transfer

QS increasingly relies on e-learning offerings for further education

E-learning tools become constantly more popular as measures for further training. The advantages of the "digital knowledge transfer" are clear: online education enables a free time disposition, access is possible from anywhere and at any time, and there are no travel costs. QS continues to expand its range of further training courses and relies thereby on e-learning.

QS is content- and financial-wise involved in the development of several e-learning courses for animal owners, carried out by the training portal **www.landakademie.de,** which belongs to the Deutscher Bauernverlag (German Farmer Publishing Company). The five new online learning modules, focusing on animal welfare, deal with the conditions of animals for transport and slaughter, as well as, pens structuring and animal care, among others, and they will be presented in late autumn.

QS E-LEARNING COURSES FOR RETAILERS

QS is currently offering an online course on the topic of "Food retail merchandising" in the further training portal **"Handel-Scout-Akademie"** of Mediadidact (dfv group). The participants of the course learn everything worth knowing about QS meat and meat products, as well as QS fruits and vegetables, at the time that they receive several tips and explanations to put in practice. The final step is an exam, which is certified after being successfully answered. The learning unit, which is interactively designed and has sound, is primarily aimed at trainees and employees in food retailing. However, the course is also available to all other interested parties, free of charge after registration on the portal.

The German Butchers' Association (Deutsche Fleischer Verband DFV) and the magazine Allgemeine Fleischer Zeitung (afz) presented their joint e-learning portal called fleischer.training at the German Butchers' Association Day in Hamburg, mid-October 2018. The interactive learning modules on **www.fleischer.training.de** cover all relevant subjects for the qualified further training of employees in the food retail and butchery, from product knowledge and sales to quality assurance for meat and meat products. QS supported, as sponsor, the production of the learning module "Safety of meat and meat products".

FREE OF CHARGE WEBINARS FOR SCHEME PARTICIPANTS

For scheme participants from the sectors slaughtering/deboning and animal transport, as well as for official veterinarians, QS made it possible to participate in online seminars from **www.akademie.vet** three times this year and assumed the costs. The training courses, organised by the company george & oslage Verlag und Medien GmbH, focused on the topic of animal welfare during transport to the slaughterhouse and animal welfare-friendly slaughtering. Furthermore, QS offered its scheme participants the opportunity to attend two so-called webinars on the topics "Animal welfare and transport: long-term transport of unweaned calves" and "Animal transport: responsibility and accountability" free of charge.

AVIAN INFLUENZA: QS SUPPORTS ONLINE TOOL TO HELP LIVESTOCK OWNERS PREVENT EPIDEMICS

To ensure that livestock owners are in the future even better equipped against an outbreak of avian influenza (AI), the University of Vechta together with the Friedrich Loeffler Institute, the Poultry Industry Association of Lower Saxony (Niedersächsischen Geflügelwirtschaftsverband e. V.), the Central Association of the German Poultry Industry (Zentralverband der Deutschen Geflügelwirtschaft e. V.) and QS, have developed an online tool for the prevention of epidemics. The so-called "AI risk traffic light" offers farmers a risk assessment by which the individual optimisation potentials can be identified, and on the basis of which improvements can be made on the farm together with the veterinarian. The tool can be accessed on the internet at **www.risikoampel.uni-vechta.de**

Short and brief

LISTERIA MONOCYTOGENES: CATEGORISING THE RISK OF CONTAMINATION

To assist the scheme participants from the slaughtering, deboning and processing sectors, QS has prepared a supporting document which can be used to estimate the risk of contamination with Listeria monocytogenes (Lm) in the plant. In addition to a great deal of information and advice, the document also contains a checklist, which can be used to carry out a systematic self-assessment. This makes it possible to determine the entry risk of Lm based on the structural conditions and work processes of the company, and to adopt the corresponding preventive measures. Recommendations are also presented on how to proceed in the case of identifying risks or positive findings. The new supporting document will be made available to the QS scheme participants in December 2018.

BPT CONGRESS IN HANNOVER - QS WILL BE THERE!

On the 16th and 17th of November the veterinarians will take over the grounds of the Messe Hannover again. QS will inform and discuss with the visitors at the bpt congress about the current status of the antibiotics monitoring and the collection of diagnostic data. The annual congress of the Federal Association of Practicing Veterinarians (Bundesverbands praktizierender Tierärzte - bpt) is one of the largest meeting places for practicing veterinarians.

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