



# QS-Report Fruit, Vegetables, Potatoes 01/2019



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Editorial

Dear readers,

QS is steadily improving internationally. In addition to Maribel Chiva Silvestre in Spain, Giulio Benvenuti in Italy has recently joined us as a local contact for our Italian scheme participants. We talked to Mr. Benvenuti about the new cooperation (p.4).

This issue of the QS-Report also includes an insert with exciting facts and figures on scheme participants, audits and residue analyses for the year 2018.

We hope you enjoy reading it  
Your QS-Team



## Food retail relies on QS

### More goods with QS certification mark in the market

The share of fruits and vegetables with QS certification mark available in the German food retailing has significantly increased during the last months. Growing demand from leading retailers was the main factor contributing to this market development. The labelling of fresh fruit and vegetables with the QS certification mark demonstrates to the consumers the existing joint commitment of producers, suppliers and retail stores in terms of quality assurance, at the time that underlines the promise of quality.

Aldi Süd takes part of the QS scheme for Fruit, Vegetables, Potatoes since the end of last year. Previously, in autumn 2018, Lidl started to advertise QS goods from Germany actively in its stores with the QS certification mark.

**“We are very pleased because - in addition to meat and meat products - now both retail companies also offer QS certified fruit and vegetables and are auditing their retail stores according to the QS requirements,”** emphasises QS Managing Director **Dr. Hermann-Josef Nienhoff**. **“The open and transparent communication of the measures and efforts of the entire supply chain is an important signal. With its participation in QS, the food retail companies demonstrate appreciation for the producers’ and suppliers’ commitment to safe food. Moreover, the ,view from outside’, the neutral**

**inspection of the stores by QS, promotes the internal optimisation processes of the retail companies“.**

Along with German QS certified products, the food retail also has fruit and vegetables from other European countries at its disposal. This is ensured by the almost 6,000 international scheme participants, who participate in the QS scheme either via a direct QS certification or through the recognition of another standard (e.g. Vegaplan or GLOBALG.A.P.). To continue increasing the product availability the framework conditions for the participation of scheme participants outside Germany are being further optimised. QS has now experts in Spain and Italy available as onsite contacts.

### RETAILER EXPERTISE IN THE QS ADVISORY BOARD

Representatives of the production, fruit trade and wholesale, as well as food retailing sectors jointly define the thematic orientation of the QS scheme with their participation in the advisory board. In this way, the market representatives are also actively involved in shaping the QS scheme. The food retailing is currently represented in the advisory board by the companies Aldi, EDEKA, Lidl and REWE. The current member list is available at [www.q-s.de/en/](http://www.q-s.de/en/).



Our partners in food retail for fruit and vegetables

### OUR SERVICES FOR FOOD RETAILERS

The employees in the food retail stores constitute the direct interface to the consumer at the point of sale, as they actively transmit their knowledge about quality assurance for fresh foods. At the same time, they are responsible for the onsite quality assurance. With the “QS Knowledge Portal Quality Assurance” QS supports trainees and employees in food retailing in these tasks. Training presentations, e-learning and publications on quality assurance for meat, fruit and vegetables on the PoS can be downloaded. QS also offers onsite trainings on these and other topics in accordance with the individual needs.

### PROFESSIONAL COMPETITION GRIPS & CO

Since 2012, QS supports the competition for young talent “Grips&Co”. This is the largest cross-company competition for apprentices in food retailing. The aim is to reward outstanding junior staff’s achievements, by testing their technical knowledge in the fields of merchandising, presentation, service and business administration. At the end of the competition, Germany’s best junior

employee in retailing is elected. The winner also becomes QS quality ambassador for one year and has access to the exciting work of the QS scheme participants, visits trade fairs and, along with his/her classmates, receives training regarding all the aspects of the quality assurance for fresh food. ■



## Brocker Möhren GmbH & Co. KG

### The best soils for the best quality

**When it comes to carrots, you need to look no further than Brocker Möhren GmbH & Co. KG on the Lower Rhine. The company has been engaged in the cultivation, storage and marketing of carrots for more than 50 years and is today one of the largest suppliers of carrots from organic and controlled integrated cultivation. The excellent quality of their produce, the comprehensive services offered by the company and its customers’ satisfaction justify the success of Brocker Möhren.**

The foundation stone was laid by Hans Brocker in the early 1960s. Today we speak of a family-run corporation composed by six companies. These include, among others, the production company of son Mario Brocker, Brocker Logistik GmbH & Co. KG, which belongs to Hans-Jürgen Brocker, as well as the Hans Brocker KG, a carrots’

processing and packing company. In the division of controlled integrated cultivation, there are approx. 70 affiliated producers with a total surface of 1,000 ha. The Brocker Group always selects only the “best soils” for carrot cultivation. In line with the slogan ‘one-stop shop’ the company supplies its carrots to wholesalers and retailers throughout Germany all year round.

### EVERYTHING UNDER CONTROL THANKS TO QS

“Quality is the highest demand on our company and the hallmark of our name”, says **Peter Boley**, quality manager at Brocker Möhren. “Our goal is to carefully produce and handle carrots”. The company is always conscious of its high sense of responsibility: “Carrots are among the first foods for babies and play an important role in the bland diet, reasons why the highest



quality is required”, Boley emphasises. It is also one of the reasons why the company decided to participate in QS almost 13 years ago. In the meantime, all the integrants of the consortium are certified according to the respective QS standards, and for the production companies the certification is also a precondition. “QS provides the framework to guarantee the perfect product quality”, highlights Boley. “As a cross-stage scheme, it enables continuous quality inspections at the highest level. With around 500 laboratory analysis from approved laboratories, it is possible to ensure that every field on which our carrots grow has the best conditions, even before sowing”, Boley continues. Since 2017, the company is also certified as QS coordinator and focuses on bundling companies from Portugal and Israel certified with GLOBALG.A.P. Option 1 into the QS scheme. ■



## Revisions on pest control

### A current status

**QS amended the requirements for pest control with effect on 1 January 2019. The modifications concern the Guidelines for Production, QS-GAP, Wholesale, Logistics, Preparation and Processing, as well as Food Retailing. The reason for the revisions was the publication of Regulation (EU) 2016/1179, which entailed amendments to Regulation (EC) No 1272/2008. There was also a need for concretisation on some aspects.**

The pest control requirements defined in the QS guidelines provide decisive assistance in the rapid

and effective fight of pests in the company. The permanent monitoring helps to detect the infestation at an early stage, to introduce suitable measures and in this way to minimise the risk of consequential damages. As part of the 2019 revision, amendments were made. Consequently, a not-infestation-related permanent baiting with rodenticides is only permissible in

exceptional cases, if it is carried out strategically by a qualified user (pest controller in accordance with the German Hazardous Substances Ordinance Annex I No. 3 para. 3.4 (5) and (6)). The fact that this is an exceptional case must be proven and documented by the expert. **Kai Göhmann** who works for the IHK-Hannover, officially appointed and sworn

expert for pest control in health and stocks protection, and lecturer for pest control and prevention, gives practical tips for improvements on pest control.

**THERE IS CURRENTLY SOME UNCERTAINTY RELATED TO THE USE OF ANTICOAGULANTS. WHAT EXPERTISE IS NEEDED?**

“Significant legal foundations regarding the use of anticoagulants have changed, which may require further training. Since March 2018 there is a new labelling deadline for anticoagulants. For this reason, many products containing anticoagulants are now classified as hazardous substances. Therefore, the Hazardous Substances Ordinance plays an important role, for both, the use in the own food business and the use (commercial) or in communal facilities.” The consequence is that the sole qualification for the “killing of vertebrate animals according to Section 4 of the German Animal Protection Act” is no longer sufficient in the food sector. This expertise only covers the use of impact traps for control purposes. To be capable to apply classified anticoagulants, it is necessary to participate in an advanced course as defined in the Annex I No. 3 of the German Hazardous Substances Ordinance. Professionals with expertise on the German “TRGS 523 - Health and Storage Protection as well as Special Material Protection” or “certified pest controllers” no dot require any further courses.”

**ARE THE PROFESSIONALS IN “PLANT PROTECTION” ALSO ALLOWED TO USE ANTICOAGULANTS?**

The view is frequently represented. In principle, this is correct according to the legal requirements, but I do not completely agree with it. If the employees only apply approved plant protection products with the indication “control of rodents in stock protection”, then they can do so, but there is only one agent, namely against house mice, active substance: zinc phosphide. The application according to

the Plant Protection Law is, therefore, only possible to a very limited extent, because rats are no longer mentioned. Additionally, the approved product would only partially work in this case, as baiting aversion (non-acceptance of the baits) is inevitable.

Thus, the employees will have to revert to biocides with an authorisation under the biocide law. According to an EU regulation, this is considered a “hygienic stock protection”, i.e. “the control of rodents in stock protection is always a biocide measure”. ■



## QS Science Fund

### Nitrate determination in potatoes: reproducible determination method

**A reproducible determination method of nitrate in potatoes and potato products was developed in a project of the Georg-August-University Göttingen, funded by the QS Science Fund Fruit, Vegetable, Potatoes. One of the main objectives of the project was the optimization of sampling and sample preparation. The nitrate content of around 2.5 tonnes of potatoes was determined during the project. The researchers found, among others, that the nitrate content in the peel is about 6.5 times higher than in the pulp. Cooking reduces the total nitrate content by up to 38 percent.**

A total of 2.5 tonnes of potatoes were analysed for the project. The analysis included both raw and cooked potatoes, as well as the storage of the tubers (without storage, 3-months storage, 6-months storage). The nitrate content in the peel and the pulp was determined by high performance liquid chromatography (HPLC). For all the studied varieties it was evident, that the in the pulp without storage presented the highest nitrate content, followed by the 3-months and the 6-months storage. This confirms that the potato is physiologically active during storage. During the analysis of the nitrate content in the peel, it was noticed that in comparison with the contents before storage, the average nitrate content slightly increased after 3 months of storage, and

then decreased again after 6 months of storage. Overall, the values in the peel were on average about 6.5 times higher than the pulp. In this way, it was possible for the first time to determine a direct correlation between the nitrate content in the pulp and in the peel. Due to the different nitrate contents in the peel area and in the pulp of a raw potato, it is possible to significantly reduce the total nitrate content by peeling the potatoes. Additionally, the cooking test showed that it can reduce the nitrate content of unpeeled potatoes by 7 percent, whereas cooking peeled potatoes leads to a reduction of the nitrate content of as much as 38 percent.

**DEVELOPMENT OF SAMPLING AND SAMPLE PREPARATION INSTRUCTIONS**

During the research project, it was also possible to develop a detailed protocol for sampling and sample preparation, which can be found in the annex of the final report. The application of this protocol for future determinations of the nitrate content in potatoes and potato products ensures a better and reproducible comparability of the determined results. The research team of the Georg-August-Universität Göttingen pleads for further studies that take into consideration the effects of weather and cultivation conditions (e.g. fertilization) on the nitrate content of potatoes. ■

The **QS Science Fund Fruit, Vegetables, Potatoes** supports research projects, scientific events and professional development, doctoral, and master theses, as well as the promotion of young scientists. Do you have any current, promising topics that are of great importance for the agriculture and the food industries? Then we look forward to receiving your application for the funding for your project. Find out more information at <https://www.q-s.de/qs-scheme/qs-science-fund.html>.

# Giulio Benvenuti

## New contact for scheme participants in Italy

The QS team has been strengthened this year with the addition of Dr. Giulio Benvenuti. The agricultural scientist with a doctorate, assists the Italian scheme participants onsite and supports QS during trade fairs and information events. He has been active in the QS scheme since 2009, working as coordinator for Greenyard Fresh Italy. That is why he knows the work of QS very well. We had a conversation with Mr. Benvenuti about his new role.

### YOU HAVE BEEN WORKING CLOSELY WITH QS SINCE 2009. WHICH WERE YOUR TASKS WITHIN THE QS SCHEME?

“My first contact with the QS Scheme was during my function as QM Consultant for Greenyard Fresh Italy - initially as coordinator, then as wholesaler, too. I think that to manage the involvement of all the scheme participants and at the same time laboratories in the supply chain through a software platform, makes it very reliable and practical. I immediately found this scheme to be very innovative and useful for our producers. I was also able to establish a contact between QS and the CSO association in Italy, which is the largest organisation in the fruit and vegetable sector there. I see CSO as the perfect partner to draw the attention of Italian producers (and organisations) on the services offered by QS Qualität und Sicherheit GmbH.”

## News in brief

### RECOGNITION OF FURTHER LOGISTICS CERTIFICATIONS

In addition to IFS Logistics, on 1 January 2019, QS started recognising the standards IFS Food and IFS Cash&Carry/Wholesale for the logistics of fruit, vegetables and potatoes. Besides, the companies certified according to the QS Guidelines Feed Sector (production scope: road transport) or according to GMP+ (scope: road transport) can be commissioned to transport unpacked, loose potatoes and onions in bulk or in large containers. The new recognitions pursue to avoid double certifications for the logistics companies and a simplification is achieved. ■

### SAMPLING TRAININGS

This year QS is also offering several trainings on correct sampling for wholesalers and coordinators, both in Germany

### WHAT DO YOU EXPECT FROM THE NOW EVEN CLOSER COOPERATION WITH QS?

“On the one hand, many Italian operators, farms and wholesalers do not know how the QS scheme works, which is why the need for advice in Italy is high. On the other hand, Italy has many QS approved laboratories. I hope that my services will contribute to competently convey more information about QS. I would like

to help overcome this by, amongst others, showing the Italian companies the benefits of participating in the QS scheme for the German market, which is one of the main destinations for the national exports of fruit and vegetables. The development of the QS scheme in Italy depends to a large extent on the demand of German retailers for the QS certification. I am sure that many Italian wholesalers will participate in the QS scheme.” ■



Giulio Benvenuti (left in picture with QS Managing Director Dr. Nienhoff) studied agronomy and has been working in the fruit and vegetable sector for 32 years. After acquiring initial experience in a renowned cooperative, in 1997 he started working as a senior consultant for quality assurance schemes, at the time that he also covers the position of quality manager for the Italian National Association of Agri-food Cooperatives.

and abroad. During the trainings the participants receive concrete instructions for taking representative samples and are shown typical errors and potential sources of contamination.

### Upcoming events:

- 16. April 2019 Pflanzmarkt für Obst und Gemüse eG, Mutterstadt (Germany)
- 25. April 2019 Rewe Group Fruchtl Logistik GmbH, Leipzig (Germany)
- 7. May 2019 Reichenau-Gemüse eG, Reichenau (Germany)
- 14. May 2019 Landgard Obst & Gemüse GmbH & Co. KG, Bornheim (Germany) ■

### of the fruit and vegetable industry, we strengthened our relationships”.

During the “Blue Hour”, which QS and the BVEO traditionally host on Thursday evening, the fair participants and invited guests enjoyed nice conversations and exciting discussions. A highlight of this year’s Blue Hour was the award of the Golden QS Badge of Honour to Ulrich Schopohl, whose long-standing commitment to the Advisory Board Fruit, Vegetables, Potatoes and to the QS Science Funds, as well as his accomplishments for the entire value chain of fruit, vegetables and potatoes were honoured. The best impressions of QS at the Fruit Logistica 2019 were summarized in a short video (only available in German): <https://www.youtube.com/watch?v=tPyEp1RHEZQ> ■

### FRUIT LOGISTICA 2019 - QS IN DIALOGUE WITH THE INDUSTRY

The international fruit and vegetable industry gathered from 6 to 8 February at the Fruit Logistica in Berlin. QS Managing Director **Dr. Hermann-Josef Nienhoff** was very satisfied with QS’ performance: “We were able to greet several scheme participants from Germany and abroad in our stand. During the conversations with national and international representatives

### IMPRINT

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