EDITORIAL

Food safety & Co.: future challenges in consumer health protection

Friedel Cramer

Published online: 15 November 2022
© The Author(s) 2022

With the motto “20 years BVL—yesterday, today, tomorrow”, our 20th anniversary event took place on the 8th of September in Berlin. Numerous guests from our scientific and partner organisations as well as from administration and politics came to the event to celebrate with us—among them was the Federal Minister of Agriculture, Cem Özdemir. Together we recalled and discussed the founding idea of the BVL: “From field to plate”, and looked ahead towards future developments and challenges.

From its very beginnings onwards the BVL took on a range of tasks. The coordinated monitoring of foodstuffs was an important part of its role, in cooperation with the federal states and our national, European and international partner authorities and specialist organisations. At the same time, the BVL was committed to the harmonisation of analytical methods with the help of our national reference laboratories, for example for pesticide residues, for residues from pharmacologically active substances and GMO, our EU reference laboratory for residues as well as the national resistance monitoring of animal pathogenic bacteria.

The BVL was founded largely because of the various food scandals in the 1990s, and ultimately the BSE-crisis in 2001. Since its foundation, the BVL has repeatedly contributed to the successful management of food crises. The EHEC-crisis in 2011 was surely the most severe, when Germany experienced one of the largest outbreaks of a food-borne infection that claimed over 50 lives. Although we are not currently in an acute food crisis, the pandemic and the war in Europe are having dramatic consequences on all parts of society and the economy, including the food sector. For example, many established commodity flows have changed. Different suppliers and products as well as ingredients are creating new risks and challenges, not only for food safety. Climate change, antibiotic resistance, and new structures for digital trade are all part of the current events and developments that are forcing us to make changes in our eating and buying behaviour, with huge scientific, political and social impacts.

1 Food safety and sustainability

Our diet contributes considerably to worldwide greenhouse gas emissions. According to Xiaoming Xu et al., food production accounts for 35 percent of CO₂ emissions caused by human activities—more than the energy sector. Food of animal origin accounts for the largest share, at 57 percent. Based on these numbers, it is needless to say that without massive efforts towards changing food production, our climate goals cannot be achieved. For our work and tasks at the BVL, this poses new challenges regarding food safety. For instance, how can meat products made of cell cultures be safe for consumers, and how can the use of insects as a source of protein be regulated? Likewise, the question of the social acceptability of new food products as well as a massive restriction in meat consumption will be both interesting and challenging aspects for consumers, scientists and regulators.

2 Plant protection product approval 2030

In addition to food safety, the BVL is also the competent authority for the authorisation of plant protection products. Whether it is in agriculture or horticulture, in conventional, integrated or organic farming, safe and effective plant protection products will continue to make an important contribution in securing our food supply in the future. Based on this, the BVL is working with experts from other stakeholders in the field on improving and accelerating the authorisation procedures with the project “Plant Protection Products Authorisation 2030”. This project includes focusing on the

---

1 Xiaoming Xu et al. (2021) Nature Food https://doi.org/10.1038/s43016-021-00358-x.
establishment of sufficient plant protection measures that will be made available for integrated and organic cultivation, and on an improved process for the application of plant protection products in Germany. This project is addressing an important task, namely the modernisation and further development of the approval process for plant protection products.

3 Opportunities and risks of NGT procedures

With the introduction of the European Green Deal and the Farm-to-Fork Strategy (F2F), the EU Commission committed itself to a fundamental change in agriculture. Among other things, by 2030 the F2F-strategy plans to decrease the use of plant protection products by 50 percent. In addition, organic farming in the EU has to increase by 25 percent. In order to reach these ambitious goals, the EU Commission has published a study on new genomic techniques (NGTs), with the aim to consider the use of NGTs in the implementation of the F2F-strategy. In order to clarify the current legal framework governing NGTs, both the opportunities they offer and the risks they pose have to be analysed in detail, accompanied by expert advice. As a partner of the EU-wide research project GeneBEcon, the BVL has the task of closing existing knowledge gaps in the use of NGT methods. Furthermore, the socio-economic impacts of NGTs will be studied.

It is important to note that NGTs are already being increasingly used for research and development of crops and livestock in third countries—often with minor requirements for approval. In contrast, under current EU legislation, NGT products need regulatory approval before being placed on the market and must be monitored. However, there are currently no fit for purpose analytical detection and identification methods for genetically modified organisms (GMOs) produced by NGTs. In the light of our legal mandate, the BVL has the official task to harmonize and improve analytical methods.

4 Combating antibiotic resistance

With the New Veterinary Medicines Regulation (EU) 2019/6 (NVR) that became applicable at the beginning of this year, harmonised rules on veterinary medicines were adopted in all EU Member States. One of the reasons for the regulatory changes was the worldwide growing antibiotic resistance problem, also called the “silent pandemic” by the WHO. Because of its serious consequences for both human and animal health, a coordinated, cross-disciplinary approach is needed. At the BVL, we focus on antibiotic resistance emerging in the animal health sector and work closely together with national and European partner authorities. We take part in strengthening EU’s action to fight antimicrobial resistance through specific measures, ensuring the prudent and responsible use of antimicrobials in animals within the One Health Approach.

Furthermore, as the German competent authority responsible for the authorization and registration of veterinary medicinal products, the BVL is involved in further development of the European pharmacovigilance database. With the NVR, marketing authorization holders (MAHs) of veterinary medicinal products are required to report all adverse events directly to the European pharmacovigilance database and no longer to the national competent authorities. For Germany, the BVL contributes in establishing an EU-wide veterinary signal management process that enables the assessment of the statements and submissions sent by MAHs as well as routine signal detection activities, including targeted signal management in the EU. This change marks an important step towards improved transparency. Since statistical methods require a sufficient data set BVL undertakes various approaches to raise awareness leading towards an increased reporting frequency of adverse veterinary drug reactions.

5 Living consumer protection and food safety

As the results of a survey by the European Food Safety Authority (EFSA) have shown, seven out of ten Europeans recognize the role of science in ensuring food safety. Likewise, one out of five consumers in Europe has concerns about food safety. We are a specialized scientific managing authority, and the mission that guides our daily work is consumer protection and food safety—even at difficult times with simultaneous and multiple crises, as is the case.
in the present. The BVL is committed to ensuring consumer protection as a reliable authority for food and feed safety, plant protection products and veterinary medicine, both for consumers and when cooperating with partner authorities. With this vision, we are ready to face future challenges at the highest possible level and within the frame of our legal mandate. Scientific facts will keep guiding us in our decisions, in law enforcement as well as in policy advice.

**Funding** Open Access funding enabled and organized by Projekt DEAL.

**Open Access** This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit http://creativecommons.org/licenses/by/4.0/.

**Publisher's Note** Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.