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Ensuring safety of circular food systems: testing for circulating contaminants

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The safety of food and feed in an circular economy is crucial for the societal acceptance. There are several examples where hazardous chemical substances show up in circular products, such as food and feed, but also in food contact materials like plastics. These substances may be present from previous applications, or generated during the recycling process. At national and international level numerous initiatives towards the circular economy are established, both at the policy (e.g. EU's Green Deal), research and technology level. However, the human safety aspects as regards chemical safety of circular products does not receive the required attention yet. The safety of circular production goes hand in hand with a strong development of the circular economy. It supports and stimulates flourishing circular food systems.

To overcome the knowledge gaps, the chemical safety of circular food and feed production should be placed higher on the agenda. The aim of this talk is to demonstrate some examples of safety issues in the circular food production chains, and provide examples of testing strategies that can adequately address the needs for safety testing in these agrochains. Examples will include persistent pollutants in the free-range egg production, the re-use of wastewater (sludge) and digestates used as fertiliser.

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