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Do we know what we eat – food metabolomics?

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Metabolomics aims to profile all chemical compounds present in a system. Numerous chemicals can be monitored simultaneously by using NMR or MS without prior knowledge of which compounds are altered. Investigations in food science include how a food product changes with food processing, to detect adulteration or misbranding or changes in nutritional profile, to understand what flavor compounds contribute to product liking, and to explore how dietary interventions with these food products alter the human metabolome. Data can also be correlated with other information, e.g. sensory evaluation data, genetic analyses or microbiological data to provide additional value.
On the example of a set of samples collected from a certain area a series of problems will be demonstrated indicating deficiencies in the information we get about the origin and composition of an everyday used food product.
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