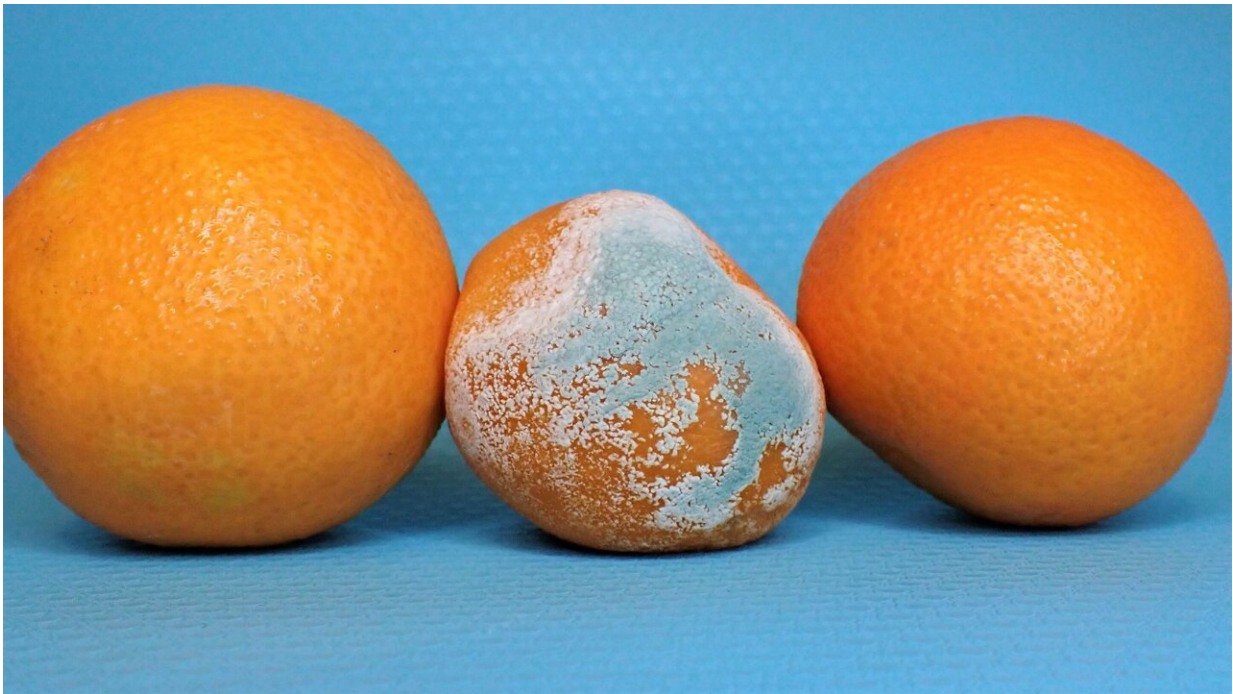


From shelf to bin: Representative study on causes of food waste

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In view of a growing world population and the issue of global food security, the following number is staggering: According to the German Federal Ministry of Agriculture, 78 kilograms of food are thrown away per capita every year in Germany alone. More than 50% of global waste along the food value chain is generated in private households. People thus spend money on products that then end up in the garbage bin. But

what is the background to this irrational behavior, which is more than a private decision in the face of resource scarcity?

Researchers at the Catholic University of Eichstätt-Ingolstadt (KU) have now used a representative population survey for the first time to investigate the entire process of [food consumption](#), from planning the purchase to consumption and disposal.

"So far, studies have only looked at single isolated aspects. But food consumption is a process that links decisions at different stages. Such an overall view has not been taken so far," says Prof. Dr. Alexander Danzer, holder of the Chair of Economics (Microeconomics) at the KU. His research assistant Helen Zeidler conducted the study, which focused on behavioral economics.

She surveyed a total of 1,273 participants twice at intervals of several months and, on the one hand, collected information on food consumption in the narrower sense: What products were thrown away in the past seven days and why? Did prepared food also end up in the bin? On the other hand, she surveyed general attitudes of the persons.

"This showed that those who tend to throw away food in particular are those who make plans for the future but then deviate from them—for example, in terms of wanting to exercise more or save money. This is because such projects bring benefits in the future, but are associated with increased effort in the present," says Zeidler.

People from this group buy healthy products, but their preparation is more time-consuming compared to ready-made products or snacks, so that they then deviate from the original plan that was made while shopping. At the same time, she said, fruits and vegetables, as well as bread, dairy products and meat, are more perishable. Therefore, the study shows that a large part of food waste is caused by the disposal of

healthy food, the consumption of which is postponed for too long.

Zeidler explains, "The vast majority of food is wasted in storage: 57% of respondents say they have found food at home that was spoiled in the last seven days, and 24% of people say they threw away food because it was past its best-before date. And 20% of respondents say they have thrown away leftovers that were stored in the fridge or freezer for further consumption."

The phenomenon of deviating from plans made while shopping is not uncommon among the population. "Overall, just under half of respondents tend to deviate from preferences they have made for the future," Helen Zeidler describes. It does not matter whether people live in the countryside or in the city. Nor does gender or [educational level](#) make a difference in terms of food waste, she said. However, it was noticeable that [older people](#) tended to dispose of less food, as did respondents who had more experience in preparing food. It also shows that people who shop more often—and perhaps less selectively—throw away more food.

"The behavior of the group of people who tend to waste food is a consequence that is not intentional," Zeidler said. She assumes that the salad, which was so tempting in the supermarket, is then forgotten in the refrigerator because it has to be prepared first, can be attributed to a tendency toward impatience. "In the past, it was the [unhealthy foods](#) that took the most effort to prepare. But today's availability of pre-prepared foods has contributed to a fundamental shift in behavior."

Many attributed food waste to consumers not knowing enough about how produce is prepared. "I think that's naïve with regard to adults, because it takes more than cooking recipes to make a [fundamental change](#) in the general structure of behavior, the foundations of which are laid in childhood," Zeidler said.

A crucial factor, he said, is the constant availability of pre-prepared food at low prices, which is what makes a tendency to waste food possible in the first place. Both in terms of public health and the impact on the environment, the researcher emphasizes, "Food waste and unhealthy diets undoubtedly have a large cost to society as a whole. It could therefore be helpful, not only for the relevant group of people, if the government were to use tax levers, for example, to influence the pricing of products."

More information: Dynamic Inconsistencies and Food Waste: Assessing Food Waste from a Behavioral Economics Perspective.
[www.ku.de/fileadmin/160107/Foo ... AndInconsistency.pdf](http://www.ku.de/fileadmin/160107/Foo...AndInconsistency.pdf)

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