

Food losses in Sweden

Methods for increasing knowledge about losses and resources in food production

There is a lack of knowledge about the amounts and causes of food loss and waste, especially losses in the early stages of the food chain. The studies that have been performed show significant losses already in primary production, which lead to economic losses for producers and unnecessary environmental and climate impact. Not all losses can be avoided, but knowing and optimizing food production flows contribute to a more robust food chain. When work and resources have been used to produce the quality that consumers demand, it is most resource efficient that the food produced reach the consumers and is consumed. By-products from the food industry can also, with other processing or handling, to a greater extent be included in food products or alternatively be used as feed instead of becoming waste.

New methods will increase knowledge of quantities and causes

In this study, we propose ways of following up food losses in the production chains for pork, beef, milk, fish, wheat, potatoes, carrots and strawberries, which can be used starting from 2021. Sweden will be one of the first countries to take a holistic approach to measure food losses at the national level.

We suggest using existing statistics when available, in combination with interviews, surveys and field surveys. For **meat**, animal registers and data from industry records could be used to calculate the proportion of meat lost when animals die, or are being put down and sent to waste treatment, and to follow up the destinations of meat by-products at the slaughter houses. In **milk** production, losses can be assessed by calculating how much is lost when dairy cows are treated with antibiotics, and by following how by-products, such as whey and buttermilk, are utilized. Damaged or too small **fish** as well as losses in the preparation can be estimated partly by using existing statistics, partly through interviews and surveys of companies. Losses in **wheat** production can be monitored through official statistics on areas not harvested and on wildlife damage, interviews with growers, and through surveys of mills and bakeries.

For **potatoes and carrots** food losses can be monitored in field studies, but also by measurements of how much is sorted out at packing plants, or lost during storage. For **strawberries**, the focus is primarily on different harvesting methods and strategies. The approach we propose is dynamic and can be expanded depending on funding and access to data. Cooperation with farmers and industry actors and other authorities remains very important.

The whole chain can contribute

Food production is governed by biological factors and variations for which it is possible to be better or worse prepared. It is a matter of knowledge, but also of access to technology, product development and innovations, which require financial resources.

Market demand is an important factor, and retailers and consumers often require higher exterior qualities in fruit, vegetables, berries and potatoes than what is stated in legislation and marketing standards. In addition, there are cancellations and returns that lead to food loss and waste. Actors in the entire food system, such as companies, organizations, authorities and researchers, need to work actively to ensure that more of what is produced for food actually becomes food. New technology, innovations and collaborations can pave the way for a positive development.

More should become food

The data collection methods proposed will be used to follow up the new Swedish milestone for reduced food loss; *By 2025, an increased share of the food production should reach retailers and consumers*, as well as for monitoring the food loss and waste target in Agenda 2030. By measuring and following up, challenges and potentials can become visible and make it possible to implement measures and initiatives both at society level and at companies in the food chain.

Full report is in Swedish [Jordbruksverket 2021:2](#) which is a result of collaboration with researchers at the Swedish University of Agricultural Sciences, RISE Research Institutes of Sweden, The Swedish EPA, Swedish Food Agency and in dialogue with Swedish farmers and industry representatives. For questions contact: Karin Lindow karin.lindow@jordbruksverket.se 036-15 64 33 or 070-814 37 07 or +46 771 223 223 jordbruksverket@jordbruksverket.se

