

#### February 2025

In December 2024, the Food Safety and Inspection Service (FSIS) and the Food and Drug Administration (FDA) solicited public input on food date labeling. The Request for Information sought information on industry practices and preferences for date labeling, research results on consumer perceptions of date labeling, and any impact date labeling may have on food waste.

This response from the Duke World Food Policy Center and Auburn University is informed by prior research and a new study published in *Applied Economics* and *Perspectives* entitled "Food Waste, Date Labels, and Risk Preferences: An Experimental Exploration" (Wilson & Miao, 2025), which explores consumer behavior and decision-making related to food date labels.







# **Overview**

USDA and FDA jointly have broad jurisdiction and oversight over the U.S. food supply and for ensuring that food labels on products over which they each have jurisdiction are truthful and not misleading. This applies to foods produced domestically, as well as foods imported from foreign countries. In addition, in 2024, the final National Strategy for Reducing Food Loss and Waste and Recycling Organics (the National Strategy) was released. The National Strategy lays out a path for the U.S. to meet its national goal of reducing food loss and waste by 50 percent by 2030.

Wasted food is the single largest category of material placed in municipal landfills. The U.S. Environmental Protection Agency (EPA) estimates that in 2019, 66 million tons of wasted food was generated in the food retail, food service, and residential sectors, and most of this waste (about 60 percent) was sent to landfills. An additional 40 million tons of wasted food was generated in the food and beverage manufacturing and processing sectors. Wasted wholesome and safe food represents nourishment that could have helped feed families in need. Additionally, water, energy, arable land, and labor used to produce wasted food could have been used for other purposes.

Effectively reducing food waste will require cooperation among federal, state, tribal, territory, and local governments, food manufacturers, agriculture producers, faith-based institutions, environmental organizations, communities, and others, all along the entire supply chain. Currently, food manufacturers use a variety of phrases such as "Sell By," "Use By," and "Best By" on product labels to describe dates on a voluntary basis. The use of different phrases to describe dates may cause consumer confusion and lead to the premature disposal of wholesome and safe food, because it is past the date printed on the package.

Both FSIS and FDA recommend that food industry members voluntarily apply the "Best if Used By" food date label, which notes the date after which quality may decline but the product may still be consumed. This label aims to lessen consumer confusion and reduce wasted food. FSIS and FDA now seek additional information on industry practices and barriers for standardizing food date labeling, research results on consumer perceptions of food date labeling, and any impact date labeling may have on food loss and waste. The information may be used to inform future policy decisions, guidance, or consumer education campaigns on food date labels intended to help reduce the premature discard of wholesome and safe food.

All comments to the information request are publically available at <a href="https://www.regulations.gov/document/FSIS-2024-0021-0001">https://www.regulations.gov/document/FSIS-2024-0021-0001</a>.

# **Our Response**

## **Consumer Confusion and Misinterpretation of Current Food Date Labels**

Our research (Wilson et al., 2017; Wilson et al., 2018; Wilson et al., 2019) demonstrates that consumers frequently expect to waste foods (premeditated waste) differently by date labels such as "Use by" and "Best by" and to misinterpret date labels as cautions about food safety rather than recommendations about food quality. This misunderstanding leads to the premature and unnecessary disposal of safe, consumable food and exacerbates household food waste.

# Mixed Consumer Responses to Food Labels Reveal Important Considerations for Labeling Policy

Consumer responses to date labels vary significantly by individual level of tolerance to losses (Wilson & Miao, 2025). For example:

- The "Use by" label results in more premeditated food waste (a plan to throw food out) than the "Best by" label, particularly for products like deli meat and spaghetti sauce. This finding again underscores that "Use by" label is seen as a food safety rather than food quality message.
- Consumers with lower tolerance for (food or health) losses record higher levels of
  premeditated waste regardless of the label type while for consumers with higher tolerance
  for loss, "Best by" led to less premeditated waste than "Use by." This finding suggests that
  labels are having impact on specific consumer segments while for others the labels may have
  no impact.
- Our research also suggests that a two-label solution may not be effective in preventing unnecessary food waste. Instead, we have evidence suggesting that with this solution, more of some products could be wasted and less of others. While moving to the two labels could tamp down consumer confusion, underlying individual tolerance of losses may more strongly shape food waste behaviors. As a result, policy efforts beyond labeling may be important for reducing waste.

## The Type of Food Product Makes a Difference in Consumer Behavior

We observe that the type of food product has an influence on the impact of date labels. And further, that consumers anticipated wasting less of a product when it was not labeled at all. (Wilson et al., 2017; Wilson & Miao, 2025).

- For example, for deli meat, people are less likely to purchase the product when labeled either "Use By" or "Best By" compared to meat that does not have such a label.
- When purchased, deli meat was more likely to be discarded prematurely when labeled "Use by" compared to "Best by."
- For a product such as spaghetti sauce, the presence of a date label did not deter people from purchasing. However, consumers were less likely to anticipate or plan to throw the sauce away when labeled "Best By."
- In general, consumers are less likely to anticipate wasting food without a date label.

#### **Economic and Environmental Costs of Food Date Label Confusion**

Consumer misinterpretation of date labels, as shown in (Wilson et al. 2017; 2019), leads to significant economic and environmental costs. This includes the premature disposal of food valued at billions of dollars annually and the associated resource waste (e.g., water, energy, and labor).

# Need to Account for Differing Consumer Behaviors Around Premeditated Waste and Tolerance for Losing Resources

Experimental evidence suggests that consumers' premeditated food waste is influenced by product type, tolerance of losses, date label type, and concerns about avoiding health problems (Wilson & Miao 2025). The findings emphasize the need for targeted interventions that address food quality and food safety messaging for groups at a high risk of prematurely throwing away food (e.g., individuals with low tolerance of food and health losses).

#### **Barriers to Food Label Standardization**

Findings from (Wilson et al. 2018) highlight the challenges manufacturers face in adopting voluntary standardized labels, including costs related to production adjustments and consumer education, and state to state legislative differences. Federal policymakers must address these barriers to ensure widespread adoption. Further, unguaranteed food industry compliance may not move the needle on reducing food waste nationally.

# References

Wilson, N., Rickard, B. J., Saputo, R., & Ho, S.-T. (2017). Food Waste: The Role of Date Labels, Package Size, and Product Category. *Food Quality and Preference*, 55, 35–44. <a href="https://doi.org/10.1016/j.foodgual.2016.08.004">https://doi.org/10.1016/j.foodgual.2016.08.004</a>

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Wilson, N., Miao, R., & Weis, C. (2019). When in Doubt, Throw It Out! The Complicated Decision to Consume (or Waste) Food by Date Labels. *Choices*, 34(1), 7–January. <a href="https://www.choicesmagazine.org/choices-magazine/theme-articles/examining-food-loss-and-food-waste-in-the-united-states/when-in-doubt-throw-it-out-the-complicated-decision-to-consume-or-waste-food-by-date-labels">https://www.choicesmagazine.org/choices-magazine/theme-articles/examining-food-loss-and-food-waste-in-the-united-states/when-in-doubt-throw-it-out-the-complicated-decision-to-consume-or-waste-food-by-date-labels</a>

Wilson, N., & Miao, R. (2025). Food Waste, Date Labels, and Risk Preferences: An Experimental Exploration. *Applied Economics Policy and Perspectives*. <a href="https://onlinelibrary.wiley.com/doi/10.1002/aepp.13507">https://onlinelibrary.wiley.com/doi/10.1002/aepp.13507</a>

# Recommendations to Policymakers

# Adopt "Best if Used By" as the Standard Label

Empirical evidence from (Wilson et al. 2019) and other consumer studies (e.g., Johns Hopkins Center for a Livable Future) supports the adoption of the "Best if Used By" label as planned by the USDA and FDA. This label effectively communicates quality rather than safety, minimizing consumer confusion and reducing unnecessary food waste.

## **Incorporate Behavioral Insights into Policymaking**

Our research (Wilson & Miao, 2025) suggests that labeling standardization efforts need to consider variations in consumer responses across product categories. High-risk products may require supplemental labeling to clarify food safety concerns and minimize premature food waste. Design policies that reflect the varying responses consumers have to date labels. This includes tailored strategies for groups at high risk of prematurely throwing away food, and for specific product types that are more likely to be thrown away for various reasons. Policymakers should remain open to the possibility that to reduce food waste, food safety messaging may be warranted in addition to the proposed food quality label standardization.

#### **Promote Consumer Education**

A nationwide educational campaign should accompany any changes to labeling standards. Research (Wilson et al., 2018; Wilson et al., 2019) highlights the importance of educating consumers on the meaning of date labels to reduce waste effectively. Organizations such as cooperative extensive services, SNAP-Ed, and health courses in school are possible avenues for this education outreach.

# **Support Research and Collaboration**

Encourage further research on the behavioral and economic impacts of date labels. Collaborate with industry stakeholders to implement evidence-based practices.





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