

# **Consumer Perception of Date Labeling: An Analysis of Consumer Discard Behavior by Phrase-date Combinations**

<sup>1</sup>Kathryn Bender, <sup>2</sup>Brian Roe and <sup>2</sup>Aishwarya Badiger

<sup>1</sup>*Allegheny College*

<sup>2</sup>*The Ohio State University*

## **Abstract**

This paper studies how food date labeling impacts consumer discard behavior. Recently, to combat consumer confusion regarding date labels, food industry groups in the United States have proposed a standardized two-phrase date labeling system where foods with quality concerns are labeled differently than foods with safety concerns. In this study, the current environment in the United States where different phrases are used by product is compared to the proposed standardized system. In addition, the effect of an education campaign on both systems is examined. In a sensory laboratory experiment, total of 364 participants were presented with one of two sets of three products: 1) chicken, lettuce, and bread or 2) frozen chicken, milk, and cereal. Participants were able to see, handle, and smell the products before indicating whether they would keep or discard the product should it be in their home. A linear probability model is used to determine the effect of date label system and education on participants' stated discard behavior. The difference between the two date labeling schemes is often insignificant. The main effect of labeling on discard is driven not by the phrase but rather the date. If manufacturers switch to standardized phrases and extend the date on the label to agree with the standardized definition, unknowing consumers may continue to ignore the phrase unless an intense information campaign accompanies the change. Manufacturers could be conservative extending the date on the label, but this would counter the point of a standardized label system to reduce consumer confusion. Three national online surveys were conducted following the sensory laboratory experiment to assess the validity of an online survey measuring intended consumer discard as well as specific consumer interpretations of different phrases and dates on package labels.

**Keywords:** Food waste, Date labeling, Food packaging, Information asymmetry, Consumer behavior

**Acknowledgments:** Thank you to Rosemarie Sabath of The Ohio State University Sensory Evaluation Center and the cooperation of Tamarack Dairy and Kroger in obtaining proper products and packaging. This work was supported by ReFED with additional support from the Van Buren program, the Dale A. Seiberling Food Engineering Lab, a seed grant entitled "A

demonstration of advanced shelf life monitoring to reduce in home food waste,” provided by the Sustainable and Resilient Economy Discovery Theme Program at Ohio State University, and by state and federal funds appropriated to The Ohio State University: College of Food, Agricultural, and Environmental Sciences, Ohio Agricultural Research and Development Center.