

*ReFED Date Labeling
Standardization
Tool: Guidelines*

2016



ReFED

Rethink Food Waste
Through Economics and Data

ABOUT REFED

ReFED is a multi-stakeholder nonprofit, powered by an influential network of the nation's leading business, nonprofit, foundation, and government leaders committed to reducing U.S. food waste. ReFED has identified 27 of the best solutions through the *Roadmap to Reduce U.S. Food Waste by 20 Percent*, a first-of-its-kind economic analysis. Implementation of these 27 solutions, combined with the cross-sector levers of policy, financing, education, and innovation are necessary to meet the national 50% reduction goal by 2030. Today, ReFED is scaling these solutions by developing new tools and resources identified by the *Roadmap*, driving multi-stakeholder collaboration, and galvanizing the capital and innovation needed to realize the *Roadmap's* potential.

CONTEXT

Currently, humans waste up to 40% of our food globally. In the United States, this equals roughly 400 lbs annually for every American. This has serious implications. For one, it is a waste of money: The United States spends over \$218 billion – 1.3% of GDP – growing, processing, transporting, and disposing of food that is never eaten. In addition, food waste is a waste of the labor and natural resources used to grow the food and also contributes to climate change. With one in six Americans estimated to be food insecure, this is also a social problem.

The time is ripe for action on food waste. Globally the issue is gaining momentum from all stakeholders, from government to the private sector to the media. Here in the U.S., we are seeing uptake in action on the issue as well, in particular from food retailers and manufacturers. There is a significant opportunity for the food industry to lead, demonstrating their responsibility and commitment to address this key social, environmental, and economic issue.

ReFED's 2016 *Roadmap* report identifies the top three solutions to reducing food waste with the greatest economic value per ton to be Standardized Date Labeling, Consumer Education Campaigns, and Packaging Adjustments.

Food product open dating — the use of date labels in a format consumers would understand — is not currently regulated for most products in the U.S. and is contributing to unnecessary food waste. Current date labeling practices on food packaging cause consumer confusion with “sell by,” “best by,” “use by,” and “best before” dates (among the many labels used), leading up to 90% of Americans to occasionally throw out still-fresh food. Confusion over the meaning of date labels is estimated to account for 20% of consumer waste of safe, edible food. This equates to approximately \$29 billion of wasted consumer spending each year — 5% to 10% of this is expected to be impacted by Standardized Date Labeling.

Infant formula is the only product that is regulated to have a date label due to the possibility of nutrients declining after a certain amount of time. Other food product date labels often refer to the time when a product is at peak quality and is best to eat, but do not always refer to a date by which it is unsafe to eat the product.

Some states do require open dating of selected products, such as milk, eggs, meat, and perishable packaged foods. Of these food products, Ready To Eat (RTE)

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products that do not require re-heating or re-cooking are at the greatest risk for developing harmful microbial growth, such as *Listeria monocytogenes* or *Clostridium botulinum*, and are often labeled “use by” for safety. Other foods that are to be eaten by susceptible populations, which are more prone to microbial infection, are also recommended to be labelled “use by.”

Because of the lack of Federal regulation and consumer confusion around labelling, some states have suggested using “best if used by” to indicate when a food is at its best quality state, and using “expires on” to indicate safety dates on high-risk foods, such as RTE foods. In contrast to the U.S., other developed countries such as those in the European Union and Australia do require open dating of products and have distinct definitions for terms that indicate quality and safety of foods. A consistent and regulated approach to food product date labeling in the U.S. has yet to be agreed upon and implemented.

Changes to date labels require little upfront investment from businesses and can be enacted unilaterally by large food companies to reduce consumer confusion. An industry-led voluntary agreement by manufacturers and retailers represents the most efficient way to implement consistent change.

The two largest food trade associations, the Food Marketing Institute (FMI) and Grocery Manufacturers Association (GMA), have partnered on an initiative to adopt standard wording on packaging about the quality and discard dates of products by mid- 2018. The new voluntary initiative streamlines the myriad date labels on consumer products packaging down to just two standard phrases:

- “BEST If Used By” describes product quality, where the product may not taste or perform as expected but is safe to use or consume.
- “USE By” applies to the few products that are highly perishable and/or have a food safety concern over time; these products should be consumed by the date listed on the package – and disposed of after that date.

This guidance from FMI & GMA builds on ongoing shifts from retailers and manufacturing companies towards fewer labels. For example, in 2016 Walmart announced it will ask its suppliers to shift non-perishable products to “Best if used by.”

**AN INDUSTRY-LED
VOLUNTARY
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RETAILERS REPRESENTS
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HOW TO USE THIS TOOL

This tool is intended to complement the Food Marketing Institute and Grocery Manufacturer Association's guidance by providing a simple process for food product manufacturers to determine whether a quality label or a discard label should be placed on their products. This tool is not intended for consumer use.

THE QUALITY AND DISCARD LABELS FOLLOW THE RECOMMENDATIONS FROM FMI/GMA:



THE QUALITY LABEL WILL BE "BEST IF USED BY"



THE DISCARD LABEL WILL BE "USE BY"

ASSUMPTIONS:

- This tool focuses on specific pathogens that can grow under refrigerated temperatures, e.g., *Listeria* and *Yersinia*. It is not focused on pathogens which would be eliminated by a kill-step (Step 2), i.e., *E. coli*, salmonella, botulism.
- For more information on food-borne pathogens, please see the Centers for Disease Control and Prevention website: [cdc.gov/foodsafety/foodborne-germs](https://www.cdc.gov/foodsafety/foodborne-germs)
- The product is handled and stored appropriately throughout the supply chain.
- Consumers follow safe handling and cooking instructions.
- The discard label should also include freezing instructions if appropriate for product, e.g., "USE BY: XXX, FREEZE BY: XXX." It should be clear to the consumer that if they freeze the product by the USE BY date, it is safe to eat.
- Shifting to the proposed two label system requires education of consumers to be effective in reducing food waste. Therefore, manufacturers and retailers should consider a consumer education plan to support the roll-out of the two date labels.

The tool is constructed in a decision tree format for the user to follow the steps to determine which label to use on their products. Each step asks a question which guides the user to either YES or NO. The steps should be followed in the order listed.



WHAT THE TOOL DOES:

- If used consistently, the tool should help limit the number of products that are assigned a discard date label and will reduce the waste of products that are still safe to consume.
- This tool addresses the date label for a package before opened, not after opened. Manufacturers may put additional guidance for "Once opened, eat within X days."



WHAT THE TOOL DOESN'T DO:

- This chart is not designed to guide the dates chosen, i.e., the time period. The time period should be determined by the manufacturer's technical experts and based on best science available.
- This tool not intended to address nutrient content deterioration over time.
- This tool does not constitute any legal advice. It is entirely voluntary and industry driven. Companies should make their own decisions about consumer expectations and how they can best relay information to their customers.

KEY STEPS OF THE TOOL:



STEP 1 – REFRIGERATION

This categorizes those products that require refrigeration for both safety and spoilage (the state to which food deteriorates and develops unpleasant characteristics such as an undesirable taste or odor making the food not wholesome, but does not cause illness).



STEP 2 – READY TO EAT (RTE)

If a product is RTE, there is no "kill" step (a process that adequately reduces microorganisms of public health concern) so the product presents a potential safety risk. If it is not RTE, then we assume there will be a "kill" step and the product will be labeled with additional cooking and handling instructions, which are separate from the date label.



STEP 3 – RISK OF PATHOGEN

This step identifies those RTE products that are higher risk of pathogens despite being refrigerated, e.g., may be prone to *Listeria* growth. The intention of this step is to provide another level of analysis to further narrow the list of products to receive a discard date label.

FREQUENTLY ASKED QUESTIONS

WHO IS THIS TOOL INTENDED FOR?

Food product manufacturers and grocer retailers.

WHY DID YOU USE A DECISION TREE FORMAT FOR THE TOOL?

ReFED's Date Labeling Working Group agreed that a decision tree approach would be the most valuable output to develop, in order to be both comprehensive of the range of foods and adaptable to new products. We looked to examples of this approach from other countries and saw that both the United Kingdom (U.K.) and New Zealand had created their own decision tree tools. We used the U.K. tool as a model for the U.S. version. The Working Group identified what was relevant and appropriate to U.S. manufacturers, which led us to create this U.S. tool.

WHAT IS READY TO EAT (RTE)?

A food that is normally eaten in its raw state or any other food, including a processed food, for which it is reasonably foreseeable that the food will be eaten without further processing that would significantly minimize biological hazards.

WHY DOES THE TOOL DIRECT NON-RTE FOODS, SUCH AS RAW MEAT, TO THE QUALITY DATE LABEL RATHER THAN THE DISCARD DATE LABEL?

The tool assumes that consumers follow safe handling and cooking instructions, which would kill any pathogens that may exist on non-RTE food.

HOW DID YOU DECIDE ON WHICH PROCESSES OR CHARACTERISTICS TO CALL OUT FOR QUALITY VS DISCARD DATE LABEL IN STEP 3?

These are based on food safety science and the most common techniques for reducing the risk of food pathogens. We include example products identified through consultation with food safety experts.

HOT DOGS/FRANKFURTERS ARE MEANT TO BE COOKED. WHY DID YOU LIST THEM AS "READY TO EAT"?

Manufacturers are required by the USDA to process frankfurters to be ready to be eaten without further cooking. Some manufacturers choose to add instructions on the package for additional heating however this is not necessary for safety purposes.

WHAT IS THE FAO GUIDANCE ON DATE LABELING?

The following items are exempt from any date label according to the FAO's Codex and was the basis for the products indicated in question one of the tool:

- whole fresh fruits and vegetables, including potatoes which have not been peeled, cut or similarly treated
- wines, liqueur wines, sparkling wines, aromatized wines, fruit wines and sparkling fruit wines
- beverages containing 10% or more by volume of alcohol
- bakers' or pastry-cooks' wares which, given the nature of their content, are normally consumed within 24 hours of their manufacture
- confectionery products consisting of flavored and/or colored sugars
- vinegar
- food grade salt
- solid sugars
- chewing gum

PROCESS AND VALIDATION BEHIND TOOL

ReFED took the initiative to convene a multi-stakeholder Date Labelling Working Group to agree on which products should receive the quality and the discard date labels. The Working Group members were experts from a wide range of organizations representing manufacturers, retailers, government, academia, and non-governmental organizations. The individuals that participated in the Working Group are listed in the table below.

WORKING GROUP MEMBERS			
Name	Title	Organization	Stakeholder Type
Norbert Wilson	Professor of Food Policy in the Friedman School of Nutrition Science and Policy	Tufts University	Academia
Bradley Rickard	Associate Professor of Applied Economics & Management	Cornell University	Academia
Christina Rice	Clinical Fellow	Harvard Food Law and Policy Clinic	Academia
Emily Broad Leib	Director	Harvard Food Law and Policy Clinic	Academia
Roni Neff	Assistant Professor	Johns Hopkins Center for Livable Future	Academia
Christine Scanlan	President & CEO	Keystone Policy Center	Academia
Don Schaffner	Distinguished Professor, Extension Specialist in Food Science	Rutgers University	Academia
William Hallman	Professor/Chair, Department of Human Ecology	Rutgers University	Academia
Ted Labuza	Distinguished Professor of Food Science & Engineering	University of Minnesota	Academia
Kevin Smith	Senior Advisor for Food Safety	Food & Drug Administration	Government
Jeff Canavan	Deputy Director, Labeling and Program Delivery Division	USDA Food Safety and Inspection Service	Government
Melissa Donnelly	Manager, Sustainability Integration & Metrics	Campbell's Soup	Manufacturer
Dennis Pittman	Director of Corporate Communications & Public Affairs	Smithfield Foods	Manufacturer
Patrizia Barone	Regulatory Affairs, Global Foods & Refreshment	Unilever	Manufacturer
Carrie Calvert	Director of Tax & Commodity Policy	Feeding America	NGO/non-profit
Karen Hanner	Managing Director Manufacturing Product Sourcing	Feeding America	NGO/non-profit
Liz Baldrige	Director of Sustainability & Food Waste Initiatives	Feeding America	NGO/non-profit
Ali Schlair	Food Safety and Nutrition Fellow	National Consumers League	NGO/non-profit
Dana Gunders	Staff Scientist, Food & Agriculture Program	NRDC	NGO/non-profit
Doug Rauch	Founder & President	Daily Table	Retailer
Michael Hewett	Director of Environmental & Sustainability Programs	Publix	Retailer
Amy White	Food Safety Manager	Walmart	Retailer
Frank Yiannas	Vice President, Food Safety	Walmart	Retailer

WORKING GROUP MEMBERS			
Name	Title	Organization	Stakeholder Type
Jackie Saumweber	Global Food Sustainability	Walmart	Retailer
Andy Harig	Senior Director, Sustainability, Tax & Trade	Food Marketing Institute	Trade Association
David Fikes	VP, Communications & Community/Consumer Affairs	Food Marketing Institute	Trade Association
Meghan Stasz	Senior Director, Sustainability	Grocery Manufacturers Association	Trade Association
Cary Frye	Vice President Regulatory & Scientific Affairs	International Dairy Foods Association	Trade Association
Emily Lyons	Director, Regulatory Affairs & Counsel	International Dairy Foods Association	Trade Association
Susan Backus	Vice President, Regulatory & Scientific Programs	North American Meat Institute	Trade Association
Janet Riley	Sr. Vice President, Public Affairs & Member Services	North American Meat Institute	Trade Association
Kathy Means	Vice President of Industry Relations	Produce Marketing Association	Trade Association
Julie Koch	VP, Member Relations	Produce Marketing Association	Trade Association

The Working Group also featured a Steering Committee of the members from FMI, GMA, NRDC, and Harvard. ReFED organized eight Working Group calls between August 2016 and May 2017 to enable a rigorous and collaborative approach to achieving the Group's common objective.

The Working Group agreed that a decision tree approach would be the most valuable output to develop, in order to be both comprehensive of the range of foods and adaptable to new products. We looked to examples of this approach from other countries and saw that both the United Kingdom (U.K.) and New Zealand had created their own decision tree tools. We used the U.K. tool as a model for the U.S. version. The Working Group identified what was relevant and appropriate to U.S. manufacturers which led us to create this U.S. tool.

In addition to the intensive collective and individual Working Group member feedback, we carried out interviews with the following experts to gain their input into the tool:

- Jim Dickson, Professor of Animal Science, Iowa State
- Oscar Garrison, Vice President, Food Safety Regulatory Affairs, United Egg Producers
- Mike Goscinski, Director, Government Relations & Lee Sanders, SVP Government Relations, American Bakers Association
- Steven Leslie, General Counsel, Grocery Manufacturers Association
- Jennifer McEntire, Vice President Food Safety and Technology, & Erin Grether, Manager, Food Safety Policy and Programs, United Fresh Produce Association
- Dr. Dennis Seman, Consultant, Meat Science and Food Safety, University of Wisconsin

The tool went through many rounds of revisions, based on the suggested edits from the various experts who contributed. We refined the order and wording of the questions, the products and processes listed in the YES and NO categories, and the supporting assumptions and guidance for the tool.

ReFED would like to take this opportunity to thank those individuals and organizations that participated in the research, interviews, and Working Group discussions that resulted in the creation of the Date Labeling Standardization Tool and accompanying guidance.

Note: A company's presence on the list above does not equate to an "endorsement" of this tool. Working Group members agreed that because many food manufacturers already have robust internal decision-making processes for determining date label use, no one tool can be endorsed as the industry standard. Instead, greater impact comes from standardizing around the two types of date labels suggested. The ReFED Date Labeling Standardization Tool proposes one way of doing that and provides guidance to manufacturers looking to evolve internal labeling processes.

RESOURCES

KEY GUIDANCE:

- Food Marketing Institute (FMI) and the Grocery Manufacturers Association (GMA) voluntary initiative on standardizing date labeling
- US Department of Agriculture Food Safety and Inspection Service December 2016 Guidance on Food Product Labeling
- US Food and Drug Administration Food Code
- Food and Agriculture Organization (FAO) Codex General Standard for the Labelling of prepackaged Foods
- Food and Drug Association 2003 Listeria risk assessment

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Disclaimer:

This guidance is designed to provide an appropriate understanding of best practice in establishing whether to give a product a quality or a discard date label. Compliance with this advice on best practice is not required by law.

This guidance does not override specific State regulations that require the use of a particular date label for specific food products. You may need to consult relevant legislation to see what applies in your circumstances.

You may also need to consult with technical experts on the microbiological risks posed by your products. This may require businesses, particularly smaller businesses without in-house technical expertise, to access independent scientific advice.