



September 2019

# DATE LABELS ON PACKAGED FOODS

## USDA and FDA Could Take Additional Steps to Reduce Consumer Confusion

## Why GAO Did This Study

USDA has reported that almost one-third of the U.S. food supply is lost or wasted at the retail and consumer levels. Studies indicate that some of this waste may occur because of consumer confusion about the meaning of date labels displayed on packaged food. Such labels are not federally regulated, and food manufacturers use different phrases on date labels. USDA and FDA have roles in ensuring the U.S. food supply is safe and properly labeled, but neither agency been directed—or given express authority—to regulate date labels.

GAO was asked to examine consumer confusion about date labels. This report (1) describes the steps USDA and FDA have taken to address consumer confusion about date labels and (2) examines the extent to which USDA and FDA have coordinated with each other and with nonfederal stakeholders on date labels. GAO reviewed studies on date labels and FDA and USDA documents; interviewed agency officials and representatives of nonfederal stakeholders, such as industry, advocacy organizations, and state governments; and compared the agencies' efforts to leading practices identified by GAO.

## What GAO Recommends

GAO is recommending that USDA and FDA develop a mechanism to facilitate coordination with relevant nonfederal stakeholders on actions related to date labels. USDA and FDA agreed with our recommendation and are planning actions to implement the recommendation.

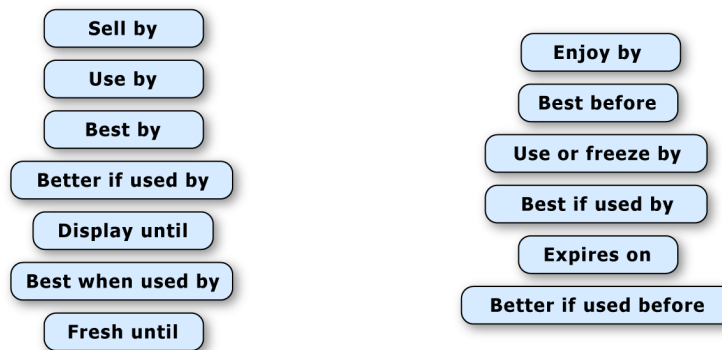
# DATE LABELS ON PACKAGED FOODS

## USDA and FDA Could Take Additional Steps to Reduce Consumer Confusion

### What GAO Found

The U.S. Department of Agriculture (USDA) and Food and Drug Administration (FDA) have taken steps to address consumer confusion about date labels on packaged foods. For example, to reduce confusion about introductory phrases on date labels, such as whether the dates indicate food is safe to eat (see figure), and resulting food waste, USDA in December 2016 issued a fact sheet on date labels for consumers. In addition, USDA has funded research on issues related to date labels (e.g., how labels affected participants' willingness to waste food) and developed a smartphone application that provides consumers with information on the shelf life of products. FDA has issued educational materials to consumers about the meaning of phrases on date labels and in May 2019 issued a statement that it supports industry efforts to standardize date labels.

Examples of Introductory Phrases for Date Labels Currently Used by Industry



Source: GAO analysis of information from the Food Marketing Institute and the Grocery Manufacturers Association. | GAO-19-407

USDA and FDA have coordinated on some initiatives focused on date labels on packaged foods. For example, agency officials said they were working together to develop information for food banks, food donors, and recipients of donated food on how to interpret date labels so food past the date on the label—but otherwise wholesome—is not wasted. In October 2018, the agencies, with the Environmental Protection Agency, signed a formal agreement to educate consumers about food loss and waste. In addition, USDA and FDA have taken steps to work with some nonfederal stakeholders—such as nonprofit organizations and an international organization—on date labeling. However, USDA and FDA officials told GAO that they do not have a specific mechanism to coordinate with state, local, and tribal officials on creating a common approach to date labels. State, local, and tribal governments may choose to regulate date labels, and the majority of states have date label requirements for certain foods. According to prior GAO work, ensuring that relevant participants are included in interagency collaborative efforts is a leading practice for interagency collaboration. By developing a mechanism to facilitate coordination with nonfederal stakeholders, such as state, local, and tribal officials, on actions related to date labels, USDA and FDA could better assure that approaches they take to address consumer understanding of date labels are effective in helping reduce consumer confusion.

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## Abbreviations

AMS	Agricultural Marketing Service
app	application
EPA	Environmental Protection Agency
FDA	Food and Drug Administration
FSIS	Food Safety Inspection Service
GPRA	Government Performance and Results Act of 1993
GPRMA	GPRA Modernization Act of 2010
NRDC	Natural Resources Defense Council
ReFED	Rethink Food Waste Through Economics and Data
USDA	U.S. Department of Agriculture

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September 9, 2019

The Honorable Rosa L. DeLauro  
Chairwoman  
Subcommittee on Labor, Health and Human Services,  
Education and Related Agencies  
Committee on Appropriations  
House of Representatives

The Honorable Chellie Pingree  
House of Representatives

Almost 133 billion pounds of food produced in the United States each year—about 31 percent of the food supply, worth an estimated \$161 billion—is lost or wasted (e.g., uneaten food that is thrown away, or plate waste) at the retail and consumer levels, according to a 2014 report from the U.S. Department of Agriculture (USDA).<sup>1</sup> This lost or wasted food costs consumers \$370 per person each year, according to a 2015 USDA estimate.<sup>2</sup> Studies have found that some of this lost or wasted food is attributable to consumer and retailer confusion about the meaning of date labels displayed on packaged foods.<sup>3</sup> Except for infant formula, date labels are not required on packaged foods by federal regulations, and manufacturers who apply date labels use a wide variety of introductory phrases (e.g., sell by, best by, best if used by), none of which indicate

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<sup>1</sup>U.S. Department of Agriculture, Economic Research Service, “The Estimated Amount, Value, and Calories of Postharvest Food Losses at the Retail and Consumer Levels in the United States,” *Economic Information Bulletin*, no. 121 (February 2014). This is the most recent estimate available from USDA. The amount and value of the food losses are for 2010. According to USDA’s 2014 report, food loss and waste is the amount of edible food that is available for human consumption but is not consumed for any reason. Food loss includes cooking loss or loss from pests, among other things. Food waste is a component of food loss and occurs when an edible item is discarded, such as when retailers discard food because it has blemishes or when consumers discard food from their plate.

<sup>2</sup>U.S. Department of Agriculture, Center for Nutrition Policy and Promotion, “Let’s Talk Trash” (September 2015), accessed May 26, 2019, <https://www.choosemyplate.gov/lets-talk-trash>.

<sup>3</sup>For example, see Natural Resources Defense Council and the Harvard Food Law and Policy Clinic, *The Dating Game: How Confusing Food Date Labels Lead to Food Waste in America* (September 2013). For the purpose of this report, packaged foods may include any food that is sold in a box, can, tin, plastic or other receptacle, wrapper, or cover.

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safety, according to USDA.<sup>4</sup> Consequently, consumers and retailers may discard food that is still edible because they are confused about what the dates and phrases on the labels mean, such as whether these dates indicate the food is safe to eat. This waste of edible food poses a burden on the American food system, such as when food producers use natural resources to grow, process, and distribute food that goes uneaten. In addition, according to advocacy organizations, some of the edible food that is discarded due to consumer confusion about date labels could be diverted to feed food-insecure households.

USDA and the Food and Drug Administration (FDA) are the two agencies primarily responsible for food safety oversight; together, they oversee nearly all of the U.S. food supply.<sup>5</sup> Within USDA, a number of agencies have various responsibilities related to food labeling. For example, the Food Safety and Inspection Service (FSIS) is responsible for ensuring that meat, poultry, and processed egg products are wholesome, not adulterated, and properly labeled and packaged, and the Agricultural Marketing Service (AMS) provides voluntary quality-grading programs that may include date label requirements. Within the Department of Health and Human Services, FDA is responsible for ensuring that food is safe, wholesome, and properly labeled. Although Congress has given USDA and FDA responsibility for ensuring proper labeling, Congress has not specifically given the agencies authority or direction to address date labels on food packages. At the state and local levels, some governments regulate date labels on specific products. For example, the state of Montana requires that Grade A milk sold in the state be labeled with a “sell-by” date that is 12 days after the date of pasteurization, and retailers must remove that milk from their shelves upon expiration of this date.<sup>6</sup>

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<sup>4</sup>U.S. Department of Agriculture, Food Safety and Inspection Service, “Food Product Dating,” accessed April 24, 2019, <https://www.fsis.usda.gov/wps/portal/fsis/topics/food-safety-education/get-answers/food-safety-fact-sheets/food-labeling/food-product-dating/food-product-dating>. Per this guidance, confusion over the meaning of dates applied to food products can result in consumers discarding wholesome food. In an effort to reduce food waste, it is important that consumers understand that the dates applied to food are for quality and not for safety. Food products can be safe to consume past the date on the label, and regardless of the date, consumers should evaluate the quality of the food product prior to its consumption.

<sup>5</sup>USDA is a department, and FDA is an agency within the Department of Health and Human Services. For reporting purposes, we refer to USDA, its component agencies, and FDA as agencies.

<sup>6</sup>Mont. Admin. R. 32.8.202, 32.8.203 (1).

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Additionally, industry organizations and individual retailers have acted to address confusion about date labels. For example, two industry organizations—the Food Marketing Institute and the Grocery Manufacturers Association—in 2017 announced a voluntary initiative to encourage manufacturers and retailers to standardize date labels on packaged foods. Furthermore, advocacy groups and academic researchers, such as the Natural Resources Defense Council (NRDC) and the Harvard Food Law and Policy Clinic, have studied the issue of consumer confusion about date labels and how this confusion contributes to food waste.<sup>7</sup>

You asked us to examine consumer confusion about date labels on packaged foods. This report examines (1) steps USDA and FDA have taken to address consumer confusion about date labels on packaged foods and (2) the extent to which USDA and FDA coordinate with each other and nonfederal stakeholders on addressing consumer confusion about date labels on packaged foods.

To address both objectives, we reviewed documents from and interviewed officials at USDA and FDA. We also interviewed officials from the Environmental Protection Agency (EPA); we did not include EPA in our objectives because while EPA is involved in food loss and waste reduction efforts, the agency does not have a role in regulating or overseeing labels on packaged foods. In addition, we interviewed officials from the Office of Management and Budget and the Council on Environmental Quality to determine the scope of federal activities related to date labeling. We also reviewed documents, including studies on date labeling,<sup>8</sup> and conducted interviews about date labeling and food waste issues with officials and representatives from a nongeneralizable sample of 25 nonfederal stakeholders, including officials from seven states, seven companies and industry associations, six advocacy and international organizations, and two foreign governments (Canada and the United

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<sup>7</sup>NRDC and the Harvard Food Law and Policy Clinic, *The Dating Game: How Confusing Food Date Labels Lead to Food Waste in America*.

<sup>8</sup>For example, Danyi Qi and Brian E. Roe, “Household Food Waste: Multivariate Regression and Principal Components Analyses of Awareness and Attitudes among U.S. Consumers,” *PLoS ONE* (2016) 11(7): e0159250. <https://doi:10.1371/journal.pone.0159250>; Ronnie A. Neff, Marie L. Spiker, and Patricia L. Truant, “Wasted Food: U.S. Consumers’ Reported Awareness, Attitudes, and Behaviors” *PLoS ONE* (2015) 10(6): e0127881; Food Marketing Institute and the Hartman Group, *U.S. Grocery Shopper Trends* (Arlington, Va.: Food Marketing Institute, 2018); and Emily Broad Leib et al., *Consumer Perceptions of Date Labels: National Survey* (2016).

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Kingdom), as well as four academic researchers (individuals or groups).<sup>9</sup> Because this was a nongeneralizable sample, our results do not reflect the views of all nonfederal stakeholders who have studied issues related to date labeling or who have taken policy positions or steps to address date labeling practices, but they provide illustrative examples of the views of some stakeholders. We also attended the 2018 New York State Organics Summit (March 27–28, 2018), the National Academies of Sciences, Engineering, and Medicine’s Science and Technology for Sustainability Program “Reducing Food Loss and Waste: A Workshop on Impacts” (Oct. 17, 2018), and the 2018 U.S. Food Waste Summit (June 26–27, 2018)—conferences at which issues related to date labeling were discussed.

To examine steps USDA and FDA have taken to address consumer confusion over date labels on packaged foods, we reviewed agency regulations and requirements, including USDA’s requirements for poultry pack dates and USDA’s voluntary program for grademarks on packaged eggs; policies; and guidance. We reviewed informational materials intended for consumers, industry, and states that the agencies have issued since 2009,<sup>10</sup> including FSIS’s 2019 Food Product Dating guide.<sup>11</sup> We also reviewed documentation on USDA’s research programs and studies related to date labeling.<sup>12</sup> We interviewed agency officials from USDA’s Office of Chief Economist, Economic Research Service, FSIS, and National Institute of Food and Agriculture; and FDA’s Center for Food Safety and Applied Nutrition.

To examine the extent to which USDA and FDA coordinate with each other and nonfederal stakeholders on addressing consumer confusion

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<sup>9</sup>We identified stakeholder groups and individuals through interviews with agency officials and through a snowball approach, in which we reviewed stakeholder documentation to identify other key stakeholders and asked stakeholders to recommend other key stakeholders for possible inclusion in this review.

<sup>10</sup>We chose 2009 for the purposes of this review because several stakeholders said that interest in the relationship between consumer confusion about date labels and the effect of that confusion on food loss and waste increased among consumer advocacy organizations around this time because of a 2008 study of food waste conducted in the United Kingdom.

<sup>11</sup>U.S. Department of Agriculture, “Food Product Dating.”

<sup>12</sup>We initially chose a 10-year time frame, which included 2009 to 2018 at the time of our review. However, as a result of suggestions from stakeholders we interviewed, we also included one study funded by USDA in 2008 that related to date labeling.



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about date labels, we reviewed agency documentation, such as regulations, policies, guidance, and educational materials relating to date labels on certain products, program information, and other documentation since 2009 related to date labeling practices. We also reviewed the formal agreement USDA and FDA, together with EPA, signed in October 2018 aimed at improving coordination and collaboration on food loss and waste issues among these agencies,<sup>13</sup> as well as the related federal interagency strategy the agencies announced in April 2019.<sup>14</sup> We interviewed agency officials about their coordination with each other and with nonfederal stakeholders. We also interviewed the officials about their plans for implementing the formal agreement. Among other questions, we asked agency officials whether those plans include actions related to date labels. We interviewed nonfederal stakeholders to determine the extent to which USDA and FDA coordinated with them on issues related to date labeling. We compared the agencies' coordination with each other and with nonfederal stakeholders against leading practices for implementing interagency collaborative mechanisms we have identified in our prior work.<sup>15</sup> We also compared the interagency strategy against leading practices in federal strategic planning. These include practices required at the federal departmental or agency level under the Government Performance and Results Act of 1993 (GPRA), as updated by the GPRA Modernization Act of 2010 (GPRAMA).<sup>16</sup> We have previously reported that GPRA and GPRAMA requirements can serve as leading practices for planning at lower levels within federal agencies such as individual programs or initiatives.<sup>17</sup> We also reviewed documentation and

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<sup>13</sup>U.S. Environmental Protection Agency, U.S. Food and Drug Administration, and U.S. Department of Agriculture, "Formal Agreement Among the United States Environmental Protection Agency and the United States Food and Drug Administration and the United States Department of Agriculture Relative to Cooperation and Coordination on Food Loss and Waste" (Washington, D.C.: Oct. 18, 2018), accessed May 26, 2019, <https://www.usda.gov/sites/default/files/documents/usda-fda-epa-formal-agreement.pdf>.

<sup>14</sup>U.S. Environmental Protection Agency, U.S. Food and Drug Administration, and U.S. Department of Agriculture, "Winning on Reducing Food Waste Federal Interagency Strategy" (Washington, D.C.: April 2019), accessed April 18, 2019, <https://www.epa.gov/sustainable-management-food/winning-reducing-food-waste-federal-interagency-strategy>.

<sup>15</sup>GAO, *Managing for Results: Key Considerations for Implementing Interagency Collaborative Mechanisms*, [GAO-12-1022](#) (Washington, D.C.: Sept. 27, 2012).

<sup>16</sup>Pub. L. No. 111-352, 124 Stat. 3866 (2011).

<sup>17</sup>GAO, *Environmental Justice: EPA Needs to Take Additional Actions to Help Ensure Effective Implementation*, [GAO-12-77](#) (Washington, D.C.: Oct. 6, 2011).

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interviewed representatives from two industry associations about an initiative to standardize date labels across the food industry.

We conducted this performance audit from February 2018 to August 2019 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

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## Background

In general, date labels on packaged foods are not required by federal regulations, except in the case of infant formula. However, manufacturers may choose to provide date labels to help consumers and retailers decide when the food is of best quality.<sup>18</sup> These date labels may carry different introductory phrases, such as “best by,” “sell by,” “use by,” or “best if used by,” prior to the date, according to the preference of the manufacturer. In most cases, these labels indicate quality or freshness (i.e., the last date by which the manufacturer believes the food will be fresh or taste best), according to USDA.<sup>19</sup> However, according to representatives from the Food Marketing Institute, because date labels are not federally regulated, manufacturers use a number of different date labels across industry, and this variation in date labels may result in consumer confusion about the meaning of the labels.

Consumer confusion about date labels on packaged foods contributes to food waste, according to various studies.<sup>20</sup> Due to this confusion about what date labels mean, consumers may throw out food that is safe to eat, even if the food does not have visible signs of spoilage, according to these studies. For example, in a 2017 study, participants were asked to state what they thought a particular date label on a certain packaged food

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<sup>18</sup>According to FSIS, factors that manufacturers and retailers consider when determining the date for which the product will be of best quality include the length of time and the temperature at which a food is held throughout the food supply chain, the characteristics of the food, and the type of packaging it is in.

<sup>19</sup>U.S. Department of Agriculture, “Food Product Dating.”

<sup>20</sup>Adriene Hall-Phillips and Purvi Shah, “Unclarity Confusion and Expiration Date Labels in the United States: A consumer perspective,” *Journal of Retailing and Consumer Services* 25 (2017), 118–126; Neff, Spiker, and Truant, “Wasted Food”; Natural Resources Defense Council and the Harvard Food Law and Policy Clinic, *The Dating Game*.

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meant.<sup>21</sup> The study found that participants did not have a consistent understanding of date labels—some thought the labels indicated safety, and some thought they indicated quality, and others were unsure what the labels meant. Furthermore, three studies estimated that from 34 percent to 70 percent of consumers think that their risk of foodborne illness increases if they consume a packaged food product past the date label.<sup>22</sup> In addition to confusion about the meaning of date labels, one study found that consumers are confused about who is responsible for date labels.<sup>23</sup> According to the study, more than one-third of consumers surveyed believed the federal government regulates date labels, and 26 percent were unsure.

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## Federal and Nonfederal Roles Related to Date Labels

### USDA and FDA

USDA and FDA share oversight of nearly all the nation's food supply but do not regulate most date labels and are not required to do so by federal law. USDA is responsible for the safety and proper labeling of meat, poultry, and egg products,<sup>24</sup> and FDA is responsible for the safety and proper labeling of virtually all other foods. Within USDA, FSIS is the public-health agency responsible for ensuring that meat, poultry, and processed egg products are safe, wholesome, and accurately labeled. According to FSIS, its goals include lowering the incidence of pathogens that cause foodborne illnesses and limiting the occurrence of outbreaks, and ensuring that regulated products are properly packaged and labeled so consumers have access to important information about the product. Also within USDA, AMS provides voluntary quality-grading programs for

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<sup>21</sup>Hall-Phillips and Shah, "Unclarity Confusion and Expiration Date Labels in the United States."

<sup>22</sup>Qi and Roe, "Household Food Waste"; Neff, Spiker, and Truant, "Wasted Food"; Food Marketing Institute and the Hartman Group, *Grocery Shopper Trends Survey* (2018).

<sup>23</sup>Leib et al., *Consumer Perceptions of Date Labels: National Survey*.

<sup>24</sup>The Poultry Products Inspection Act, the Federal Meat Inspection Act, and the Egg Products Inspection Act provide USDA authority to regulate meat, poultry, and certain egg products. Additionally, as a result of the 2008 Farm Bill provisions amending the Federal Meat Inspection Act, regulatory responsibility for Siluriformes fish inspection fell to FSIS in December 2015, when FSIS issued final regulations for a mandatory inspection program for fish of the order *Siluriformes*. The program regulations became effective in March 2016. 80 Fed. Reg. 75,590 (Dec. 2, 2015).

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producers of products such as milk, eggs, and meat. These quality-grading programs are paid for by the producers of these commodities and can require, among other things, that producers participating in these programs use date labels. In addition, USDA has research components that could address issues relating to date labels. For example, USDA's National Institute of Food and Agriculture supports research through grants to individuals, institutions, and organizations, and the Economic Research Service conducts economic research to inform and enhance decision-making.

FDA has statutory authority to regulate the safety of foods and nutrition labels on packaged foods not regulated by FSIS.<sup>25</sup> However, the agency is not required by statute to regulate the use of date labels.<sup>26</sup> FDA also exercises its general authority to assist state and local governments with food safety efforts through its State Cooperative Programs specifically for Grade A milk, molluscan shellfish, and retail and food-service establishments.<sup>27</sup> As part of these programs, FDA provides technical support, guidance, and training to help its regulatory partners with reducing foodborne illnesses associated with these commodities. Also, in coordination with its regulatory partners and industry, FDA develops guidance, including guidance on date labels for certain products and in certain circumstances. Such guidance represents FDA's best advice for a uniform system of provisions that address the safety and protection of food offered at retail and in food service.

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<sup>25</sup>FDA's authority to regulate the safety of foods and nutrition labels on packaged is provided in the Federal Food, Drug, and Cosmetic Act, 21 U.S.C. §§ 301–399d, 399g.

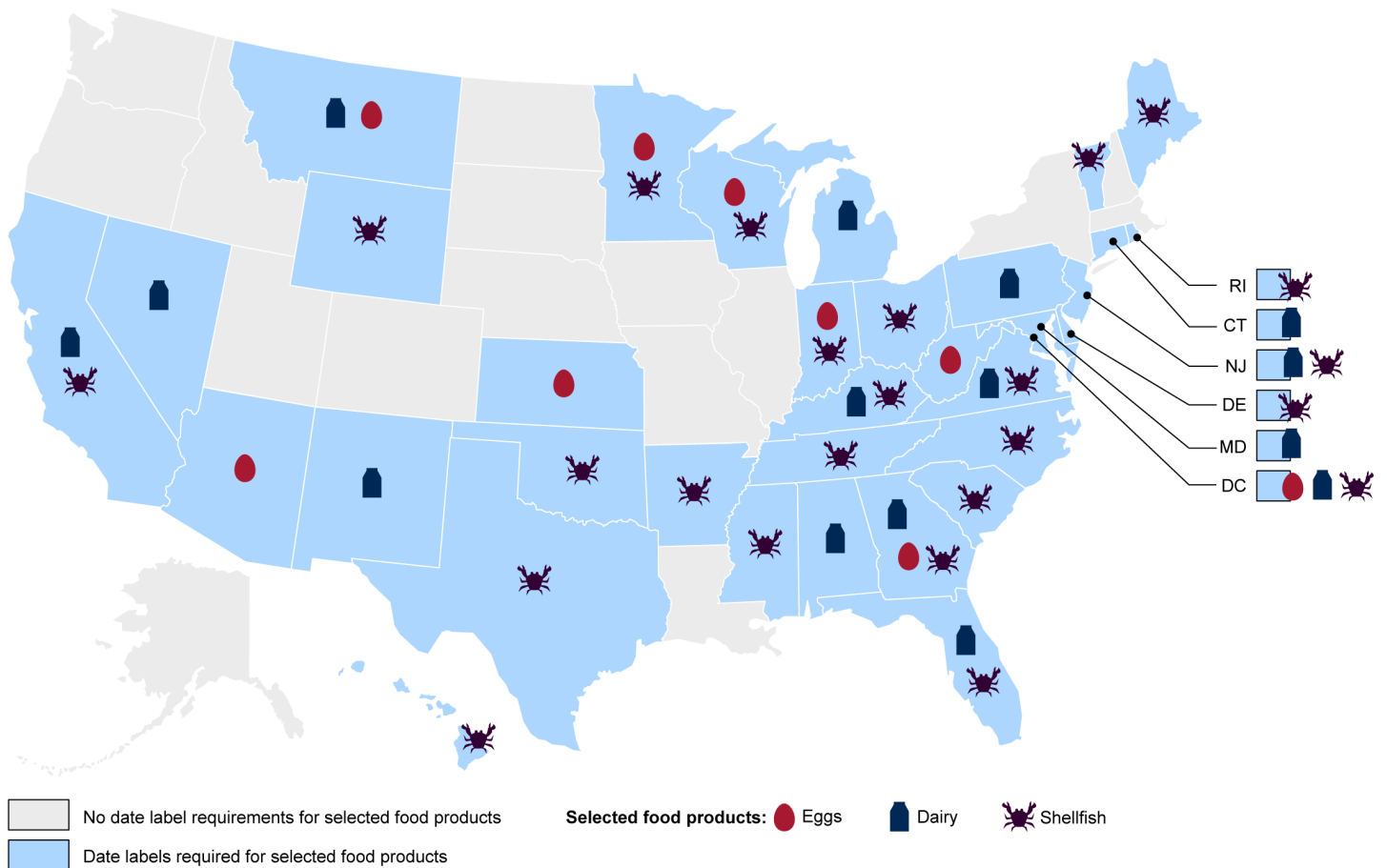
<sup>26</sup>FDA's infant formula regulations require a "use by" date after which a package or container of infant formula should not be fed to infants. This date indicates that the manufacturer guarantees the nutrient content and the general acceptability of the quality of the formula up to that date. Although date labels on infant formula are not mandated in statute, FDA promulgated regulations requiring date labeling that indicates that the infant formula, until that date, will contain not less than the quantity of each nutrient as set forth on its label and be of an acceptable quality otherwise.

<sup>27</sup>In support of these programs, memorandums of understanding (MOU) have been signed between FDA and national conferences, including the National Conference on Interstate Milk Shipments, the Interstate Shellfish Sanitation Conference, and the Conference for Food Protection.

State, Municipal, and Tribal Governments

As we reported in May 2016, the federal food safety oversight system is supplemented by states, localities, tribes, and territories, which may have their own laws and agencies to address the safety and quality of food.<sup>28</sup> Generally, state, local and tribal governments may choose whether to regulate date labels on packaged foods. For example, the majority of states and the District of Columbia have some date labeling requirements for, most commonly, shellfish, dairy, and eggs, as figure 1 shows.

Figure 1: States That Have Date Labeling Requirements for Certain Packaged Foods



Sources: GAO, based on data from the Natural Resources Defense Council and Harvard Food Law and Policy Clinic; Map Resources (map). | GAO-19-407

<sup>28</sup>GAO, *Food Safety: FDA Coordinating with Stakeholders on New Rules but Challenges Remain and Greater Tribal Consultation Needed*, [GAO-16-425](#) (Washington, D.C.: May 19, 2016).

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Note: This graphic shows examples of state date labeling requirements and does not represent all state date labeling requirements. For the purpose of our report, we chose to focus on the three most commonly regulated food products: eggs, dairy, and shellfish. Examples of other products for which some states require date labels may include, but are not limited to, meats, infant formula, prepackaged sandwiches, and perishable foods.

Additionally, some states and the District of Columbia prohibit retailers from selling some packaged foods to consumers if the date on the label has passed. Furthermore, some municipalities choose to regulate date labels in addition to, or in the absence of, state regulations. For example, while Maryland prohibits the sale of grade “A” milk or milk products past the “Sell by” date marked on its cap or container,<sup>29</sup> the city of Baltimore generally prohibits the sale of any perishable food past its expiration date.<sup>30</sup> Tribal governments may also have regulations that address labels on packaged food. For example, the Navajo Nation Code has requirements related to labeling of some packaged foods, such as shellfish.<sup>31</sup>

## Industry

Where no state or local regulations are in place regarding date labeling, manufacturers may decide which of their packaged food products display a date label and what wording to use on the date label. Estimates on the number of different date labels currently in use across industry vary. Figure 2 below provides examples of introductory phrases for date labels currently used by packaged food manufacturers.

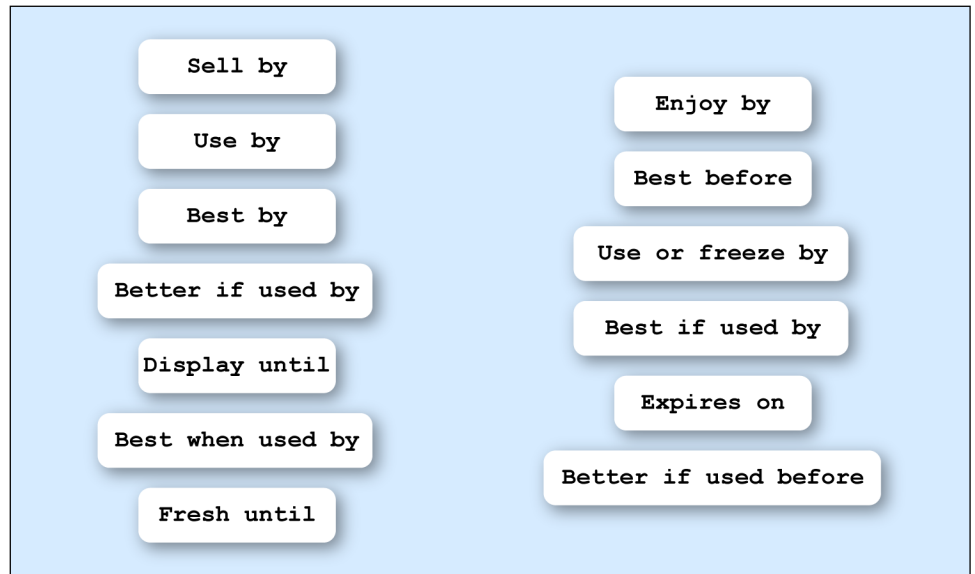
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<sup>29</sup>Md. Code Regs. 10.15.06.10.

<sup>30</sup>Baltimore, MD, He. Code § 6-505.1.

<sup>31</sup>Navajo Nation Code Ann., Tit. 13 § 32 (2010).

**Figure 2: Examples of Introductory Phrases for Date Labels Currently Used by Packaged Food Manufacturers**



Source: GAO analysis of information from the Food Marketing Institute and the Grocery Manufacturers Association. | GAO-19-407

In response to consumer confusion about date labels and resulting food waste, two industry associations, the Food Marketing Institute and the Grocery Manufacturers Association, in 2017 announced a voluntary industry initiative to encourage manufacturers and retailers to standardize date labels on packaged foods. This initiative calls for manufacturers to use either of two introductory phrases for date labels on packaged foods: (1) a “best if used by” label as an indication of product quality and (2) “use by” for certain perishable products that may be more susceptible to degradation of quality or potential food safety concerns. In December 2018, the Food Marketing Institute and the Grocery Manufacturers Association reported that in a consumer survey on these date labels, 88 percent of those surveyed said these two date label phrases were clear to them and 85 percent said they were helpful.

Advocacy Groups,  
International Organizations,  
and Countries

Some advocacy groups work to reduce consumer confusion over date labels as part of their overall food waste reduction efforts. For example, Rethink Food Waste Through Economics and Data (ReFED), an advocacy group committed to reducing food waste in the United States, in 2016 issued a report that outlined key steps to reduce food waste. The report listed standardizing date labeling as one of the top three solutions

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to reducing food waste with the greatest economic value and net environmental benefit.<sup>32</sup> According to representatives from ReFED, the organization works alongside industry to promote the Food Marketing Institute and the Grocery Manufacturers Association joint voluntary initiative by providing manufacturers with a tool they can use to determine which wording to use on date labels for different products. In addition, according to these representatives, ReFED is developing methods to disseminate information to consumers about the meaning of date labels.

Representatives from the Natural Resources Defense Council (NRDC), an international nonprofit environmental advocacy organization, said that NRDC is coordinating with the National Ad Council, a nonprofit organization that provides public-service communications, to develop a multiyear outreach and education campaign aimed at reducing household food waste. According to NRDC representatives, this joint effort may include information about date labels. Furthermore, in 2017, NRDC and the Harvard Food Law and Policy Clinic issued a report that found that the lack of standard date labels leads to a mistaken belief that past-date food is unsafe to consume, which causes unnecessary waste.<sup>33</sup> The report called for Congress to pass legislation or for FDA and USDA to work together to create uniform regulations that standardize date labels throughout the nation.

International entities have also taken steps to address date labeling practices and make date labels clearer to consumers. For example, according to its website, the Consumer Goods Forum—an association of 400 manufacturers and retailers across 100 countries that sell globally—has teamed up to help meet the United Nations sustainable development goal that calls for cutting in half per capita global food waste at the retail and consumer levels and reducing food losses along production and supply chains by 2030.<sup>34</sup> As part of this effort to reduce food waste, the Consumer Goods Forum has called for standardized date labels.

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<sup>32</sup>Rethink Food Waste Through Economics and Data, *A Roadmap to Reduce U.S. Food Waste by 20 Percent* (2016).

<sup>33</sup>Natural Resources Defense Council and the Harvard Food Law and Policy Clinic, *Don't Waste, Donate: Enhancing Food Donations through Federal Policy*.

<sup>34</sup>*Food Waste: A global commitment to halving food waste by 2025*, accessed May 2, 2019, <https://www.theconsumergoodsforum.com/initiatives/environmental-sustainability/key-projects/food-solid-waste/>.



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Other countries have also taken steps to address date labels. For example, in the United Kingdom, in 2008 a nonprofit group conducted research that found that consumers threw out about 22 percent of food that they could have eaten, because they were confused about what the date labels meant.<sup>35</sup> In 2015, the United Kingdom government issued guidance on date labels, specifically that packaged foods must display either a “best before” or “use by” date on the packaging or label of prepackaged food products.<sup>36</sup> According to this United Kingdom guidance, a “use by” date label communicates that there may be a safety issue with consuming the product after the date. Furthermore, selling food that is past its “use by” date is prohibited in the United Kingdom. Additionally, the Canadian government has standardized date labels, requiring that prepackaged products with a durable life of 90 days or less be labeled with date markings and storage instructions, where applicable.<sup>37</sup> Such foods must display “best before” and its corresponding French, “meilleur avant.”

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## Federal and International Roles Related to Food Loss and Waste

According to a 2014 USDA report, food loss and waste represents significant amounts of money and other resources invested in food production, including land, fresh water, labor, energy, agricultural chemicals (e.g., fertilizer, pesticides), and other inputs to produce food that does not ultimately meet its intended purpose of feeding people.<sup>38</sup> Furthermore, according to the 2014 report, reducing food waste will become an increasingly important strategy in the future to help feed a growing human population both here and abroad. In the United States, USDA and EPA are leading the federal government’s efforts to reduce food loss and waste, according to officials from the Office of Management

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<sup>35</sup>The Waste & Resources Action Programme, *The Food We Waste* (Banbury, Oxon.: April 2008).

<sup>36</sup>United Kingdom Department for Environment, Food & Rural Affairs and Food Standards Agency, *Food Labelling: giving food information to consumers* (Nov. 29, 2017).

<sup>37</sup>Food and Drugs Act, CRC, c 870, s B.01.007.

<sup>38</sup>U.S. Department of Agriculture, “Postharvest Food Losses at the Retail and Consumer Levels.”

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and Budget and the Council on Environmental Quality.<sup>39</sup> For example, in 2013, USDA and EPA launched the U.S. Food Waste Challenge for participants across the food supply chain to share best practices on reducing, recovering, and recycling waste. Furthermore, in September 2015, USDA and EPA announced a national goal to reduce food loss and waste in the United States by 50 percent by 2030, which aligns with the United Nations sustainable development goal that calls for cutting in half per capita global food waste.<sup>40</sup> According to FDA officials, the agency was not involved with establishing the national goal because the agency has a limited mission related to food loss and waste; it is primarily responsible for protecting public health by ensuring the safety of the nation's food supply, among other things.<sup>41</sup>

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<sup>39</sup>Among other things, USDA estimates food loss and waste at the retail and consumer stages of the food supply chain and conducts research on ways to reduce food loss and waste, particularly in the agricultural sector. USDA also works to raise awareness about food loss and waste and discuss potential solutions. EPA oversees solid-waste management, among other things. For example, EPA regulates the management of household, industrial, and manufacturing solid and hazardous wastes under the Resource Conservation and Recovery Act. The objectives of this act are to promote the protection of health and the environment and to conserve valuable material and energy resources by, among other things, requiring that hazardous waste is properly managed; minimizing the generation of such waste through recycling and recovery; and establishing cooperative efforts among the federal, state, and local governments and private partnership.

<sup>40</sup>U.S. Department of Agriculture, Office of Communications, "USDA and EPA Join with Private Sector, Charitable Organizations to Set Nation's First Food Waste Reduction Goals," Press Release No. 0257.15 (Washington, D.C.: Sept. 16, 2015). United Nations Sustainable Development Goal 12.3 states: "By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses." This goal was one part of a set of 17 Sustainable Development Goals that the United Nations General Assembly adopted in September 2015 as part of the 2030 Agenda for Sustainable Development.

<sup>41</sup>According to FDA officials, since 2016, FDA has been more engaged in education and outreach efforts to promote a better understanding of how FDA regulations and consumer information affect the efforts of various stakeholders to reduce food waste and food insecurity.

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## USDA and FDA Have Taken Steps to Address Consumer Confusion about Date Labels

USDA and FDA have taken steps to address consumer confusion about date labels on packaged foods. For example, USDA has issued guidance to consumers and industry, promulgated regulations and implemented policies, and funded research on issues related to date labeling. In addition, FDA has issued information to consumers and supported industry efforts to standardize date labels.

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## USDA Has Issued Guidance for Consumers and Industry

In December 2016, USDA's FSIS announced the availability of a fact sheet that provides guidance related to date labels for industry and consumers.<sup>42</sup> The fact sheet, among other things, explains the meaning of commonly used phrases on date labels and recommends that grocery manufacturers and retailers that use date labels on their products use the language "best if used by" to reduce consumer confusion and resulting food waste. According to an FSIS announcement at the time, the agency chose this phrase because research showed that consumers easily understand the phrase as an indicator of food quality rather than food safety.<sup>43</sup> FSIS also solicited comments on the fact sheet and, in April 2019, after receiving and reviewing comments, updated the fact sheet by, among other things, adding "freeze by" to the list of phrases commonly used on labels to describe food quality dates.<sup>44</sup> Figure 3 shows excerpts from the 2019 fact sheet.

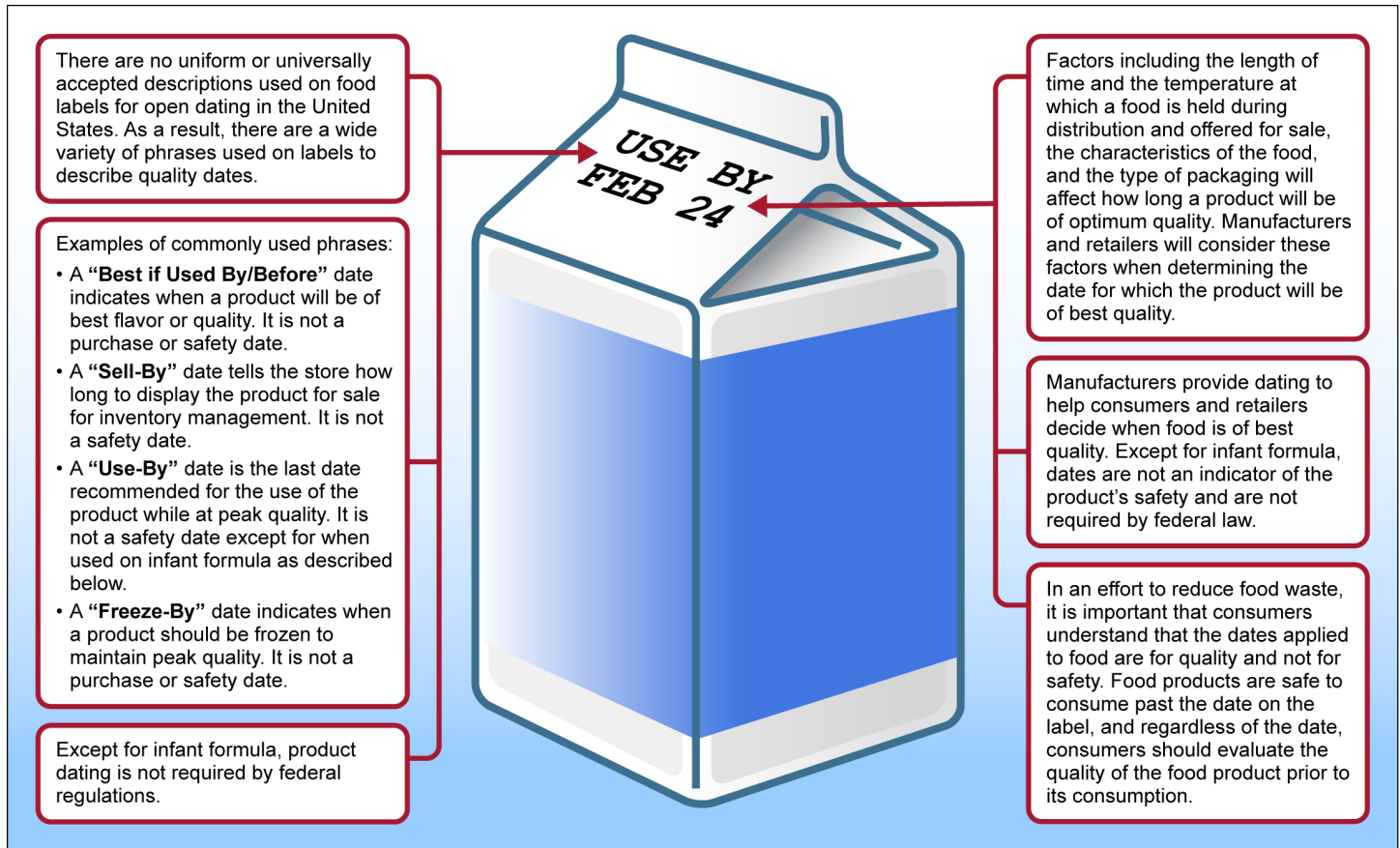
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<sup>42</sup>U.S. Department of Agriculture, *Food Safety Information: Food Product Dating* (2016).

<sup>43</sup>U.S. Department of Agriculture, Food Safety and Inspection Service, "FSIS Revises Guidance on Date Labeling to Reduce Food Waste," *FSIS Constituent Update* (Washington, D.C.: Dec. 16, 2016).

<sup>44</sup>Availability of FSIS Food Product Dating Fact Sheet, 84 Fed. Reg. 14,083 (Apr. 9, 2019).

Figure 3: Excerpts from U.S. Department of Agriculture’s 2019 Date Label Fact Sheet



Source: GAO analysis of U.S. Department of Agriculture (USDA) guidance. | GAO-19-407

In addition, FSIS offers a smartphone application (app), called FoodKeeper, that provides information for consumers on the shelf life of products, how to use food when it is at peak quality, and how to store food properly. FSIS developed the FoodKeeper app in 2015 in partnership with Cornell University and the Food Marketing Institute. The app offers users advice on how to store more than 650 food and beverage items, with specific storage timelines for the refrigerator, freezer, and pantry, depending on the nature of the product. In addition, the app allows consumers to note in their devices’ calendars when they purchased the products and to receive notifications when these products are near the end of their recommended storage date, among other things.

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According to FSIS, the agency is working on an updated version of the app.

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## USDA Has Promulgated Regulations and Implemented Policies

USDA has promulgated regulations and implemented policies related to required or voluntary date labels on certain products, such as poultry and eggs, and on foods used for its nutrition assistance programs.<sup>45</sup> For example, FSIS has promulgated regulations that require that either the immediate container or the shipping container of all poultry food products be marked with a code or with the date the product was packed.<sup>46</sup> According to FSIS, while USDA does not require date labeling for quality or food safety for products under its purview, the agency requires this “pack date” for poultry products to help the agency identify product lots and facilitate trace-back activities in the event of an outbreak of foodborne illness.<sup>47</sup> Additionally, FSIS has promulgated regulations regarding voluntary date labeling.<sup>48</sup> While there are no regulations requiring meat products to have a calendar date, a meat manufacturer may voluntarily place a date on the package. For both poultry and meat products, FSIS’s regulations regarding language on these labels require that this date contain the day and month and be accompanied by a phrase explaining the meaning of the date, specifically “packing” date, “sell by,” or “use before.” The regulations also give manufacturers the option of adding a further qualifying phrase such as “for maximum freshness” or “for best quality.” In the case of meat and poultry products that are hermetically sealed, dried, or frozen, the year must be included as well, to prevent misleading consumers. According to FSIS, a retailer cannot remove or change the date while the product remains in its original packaging if a meat or poultry manufacturer voluntarily places a date on the package.

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<sup>45</sup>According to USDA, the agency provides nutrition assistance to millions of Americans who are food insecure through Food and Nutrition Service programs that include the National School Lunch Program, the Supplemental Nutrition Assistance Program, and emergency food assistance.

<sup>46</sup>See 37 Fed. Reg. 9706 (codified as amended at 9 C.F.R. § 381.126(a)). For poultry, both the date of slaughter and date of packing are required. 37 Fed. Reg. 9706 (codified as amended at 9 C.F.R. § 381.126(a), (b)).

<sup>47</sup>U.S. Department of Agriculture, “Food Product Dating.”

<sup>48</sup>E.g., 35 Fed. Reg. 15,580 (Oct. 3, 1970) (codified as amended at 9 C.F.R. § 317.8(b)(32) (meat products); 37 Fed. Reg. 9706 (May 16, 1972) (codified as amended at 9 C.F.R. § 381.129(c)) (poultry products).

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In addition, AMS has promulgated regulations regarding a voluntary egg grademark program, in which egg producers may obtain a USDA grademark, or shield, on their eggs that indicates they meet applicable quality and size standards.<sup>49</sup> The regulations contain requirements related to date labels. Among other requirements to obtain a grademark, the cartons or consumer packaging containing these eggs must show the day of the year on which the eggs were packed.<sup>50</sup> Specific introductory phrasing for the date label—such as sell by, best by, or use before—is not required, but if these terms are used, AMS policies restrict the number of days from the pack date that can be used on a date label.<sup>51</sup> An egg producer may choose to not use an expiration date and still receive AMS certification, but the lot number must be present on each carton. Cartons not identified with a USDA grademark are not subject to federal regulation; however, regardless of whether the eggs bear a USDA grademark, they are subject to state and local date labeling requirements.

Furthermore, USDA’s Food and Nutrition Service, which administers 15 federal nutrition assistance programs, policy, last updated in 2017, clarifies that date labels indicate quality, not safety. This policy references the agency’s regulation that prohibits distributors of food assistance from

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<sup>49</sup>19 Fed. Reg. 7607 (codified as amended at 7 C.F.R. pt. 56). AMS offers a voluntary program that provides grading for quality for consumer-labeled table eggs in accordance with standards outlined in the Code of Federal Regulations and AMS guidelines. These standards are the U.S. Grade Standards for the Voluntary Grading of Shell Eggs and the United States Standards, Grades, and Weight Classes for Shell Eggs. Under this program, USDA graders monitor the grading and packing of eggs to ensure they meet the applicable quality and size standards, and eggs packed under this program are eligible to carry the USDA grademark.

<sup>50</sup>See 7 C.F.R. § 56.37. Shell eggs identified with the grademarks shown in § 56.36 shall be legibly lot numbered on either the individual egg, the carton, or the consumer package. The lot number shall be the consecutive day of the year on which the eggs were packed, except other lot numbering systems may be used when submitted in writing and approved by the Administrator.

<sup>51</sup>U.S. Department of Agriculture, Agricultural Marketing Service, *Shell Graders Handbook*, AMS PY Instruction No. 910 (Shell Eggs), Sec. 5 (Washington, D.C.: November 2012). These requirements limit dates associated with qualifying phrases such as “sell by” or “expiration date” to no longer than 30 days from the date of pack). Dates associated with qualifying prefixes, such as the “best by” or “best before” prefix, are limited to 45 days from date of pack. If the egg producer does not wish to use an expiration date, the product can still be USDA certified. However, the “lot number” requirement as outlined in 7 C.F.R. § 56.37 must be present on every certified carton.

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providing food with expired date labels or food that is “out-of-condition,”<sup>52</sup> regardless of the date on the label, to recipients of any Food and Nutrition Service programs.<sup>53</sup> The policy states that, to give program recipients the opportunity to eat all donated foods before their expiration dates, distributors and recipient agencies should use an inventory-management system that distributes products marked with the earliest end date first, even if they were received after other similar products.

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## USDA Funded Research Related to Date Labels

From 2008 through 2018, USDA provided funding for two grants related to date labels, resulting in three studies: one grant resulted in a 2008 study, and the other grant resulted in studies in 2017 and 2018.<sup>54</sup>

- The 2008 study assessed participant understanding of date labels on ready-to-eat meat and poultry products to minimize the risk of listeriosis in vulnerable populations.<sup>55</sup> The study found that participants paid attention to the date labels but varied highly in their interpretation of the statements. However, they generally interpreted “sell by” date labels as primarily intended for the retailer’s use on when to pull stock and “best if used by” labels as pertaining more to quality than safety considerations. The researchers reported that participants considered “use by” statements clearer and more helpful than “sell by” or “best if used by” labels and that they believed there was a need for a standardized approach to labeling. The study recommended that if a “sell by” date is used on a product solely for the store to know when to pull a product off the shelf, then a “consume or use by” date should also be implemented on behalf of the consumer.

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<sup>52</sup>USDA’s Food and Nutrition Service defines “out-of-condition” as “foods that are no longer fit for human consumption as a result of spoilage, contamination, infestation, adulteration, or damage.”

<sup>53</sup>U.S. Department of Agriculture, Food and Nutrition Service, “Donated Food Storage, Distribution, and Product Dating (Revised),” Policy No. FD107 (Nov. 21, 2017).

<sup>54</sup>These grants were funded through USDA’s National Institute of Food and Agriculture.

<sup>55</sup>Jenna Lenhart et al., “Consumer Assessment of Safety and Date Labeling Statements on Ready-to-Eat Meat and Poultry Products Designed to Minimize Risk of Listeriosis,” *Journal of Food Protection*, vol. 71, no. 1 (2008): pp. 70–76. This study defined vulnerable populations as women of childbearing age and senior-aged women, and thus selected participants from these two groups. According to the Centers for Disease Control and Prevention, listeriosis is a serious infection caused by the bacterium *Listeria monocytogenes*. People usually become ill with listeriosis after eating contaminated food.

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- The 2017 study examined, among other things, consumer understanding of phrases on date labels—specifically, “best by,” “fresh by,” “sell by,” and “use by”—on specific products and how these labels affected the participants’ willingness to waste the food.<sup>56</sup> The study found that participants had different levels of willingness to waste food depending on the phrase on the label. In the study, willingness to waste was highest for “use by” and lowest for “sell by,” and this difference held regardless of the product. The researchers suggested that this could be because “use by” may be the least ambiguous and suggestive of food safety, while, conversely, “sell by” may be the most ambiguous and least suggestive of food safety. The researchers suggested that if manufacturers move exclusively to the “sell by” date label, this could lead to less waste in the food system. However, while the study identified phrases least likely to result in food waste, it focused on only three products and did not address or make recommendations about steps federal agencies could take to address consumer confusion about date labeling.
  - The 2018 study examined consumer perception of date labels—specifically, “use by” and “best by”—on deli meat and spaghetti sauce.<sup>57</sup> The study found that participants had differing perceptions of date labels by product and what each introductory phrase on the labels meant—that is, whether they reflected safety, quality, taste, or nutrition. Generally, the study found that consumers tended to view “use by” as reflective of safety and nutrition, and “best by” as indicative of quality and taste.

The three studies looked at consumer confusion on date labels on certain packaged foods but did not determine which introductory phrase for a date label would be most effective for reducing such confusion across a wide range of products that consumers may purchase, quantify the impact of such confusion on food waste, or determine steps USDA or other federal agencies could take to reduce waste resulting from such confusion. USDA’s 2014 report on food waste noted that food loss (particularly the food waste component) was becoming an increasingly

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<sup>56</sup>Norbert Wilson, et al., “Food Waste: The Role of Date Labels, Package Size, and Product Category,” *Food Quality and Preference*, 55 (2017): pp. 35–44. This study focused on ready-to-eat cereal, salad greens, and yogurt in packages of varying sizes and dates and also found that consumers were more willing to discard salad if past the date, and less willing to discard yogurt.

<sup>57</sup>Norbert L. W. Wilson, Ruiqing Miao, and Carter Weis, “Seeing is Not Believing: Perceptions of Date Labels over Food and Attributes,” *Journal of Food Products Marketing*, vol. 24, no. 5 (2018): pp. 611–631.



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important topic both domestically and internationally.<sup>58</sup> Moreover, according to that report, better estimates of the amount and value of food loss, including food waste, could help serve as quantitative baselines for policymakers and the food industry to set targets and develop initiatives, legislation, or policies to minimize food waste, conserve resources, and improve human nutrition. Previously, we have reported that the nation’s increasingly tight budget environment underscores the need for federal research agencies to set priorities carefully and make effective use of limited research funding.<sup>59</sup> USDA officials told us that their awareness of the role of consumer confusion about date labels and its effect on food waste had increased over time. Furthermore, these officials told us they planned to consider funding additional research if their process for determining research priorities indicates additional research is needed.<sup>60</sup>

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## FDA Regulates Date Labels on Infant Formula, Has Provided Information on Date Labels to Consumers, and Has Supported Industry Efforts to Standardize Date Labels

FDA has taken some actions related to date labeling, such as promulgating regulations regarding date labels on infant formula. For example, since 1985, FDA has required that infant formula display a specific “use by” date on each container of infant formula, which specifies the date after which the formula should not be fed to infants.<sup>61</sup> According to FDA, this label indicates that the manufacturer guarantees the nutrient content and the general acceptability of the quality of the formula up to that date.<sup>62</sup>

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<sup>58</sup>U.S. Department of Agriculture, “Postharvest Food Losses at the Retail and Consumer Levels.”

<sup>59</sup>GAO, *Agricultural Research: Two USDA Agencies Can Enhance Safeguards against Project Duplication and Strengthen Collaborative Planning*, GAO-13-255 (Washington, D.C.: Apr. 12, 2013).

<sup>60</sup>At USDA’s National Institute of Food and Agriculture, national program leaders are responsible for setting the agencies’ research priorities; obtaining input from stakeholders in industry, academia, and elsewhere; and identifying gaps in agricultural research.

<sup>61</sup>50 Fed. Reg. 1833, 1840 (codified as amended at 21 C.F.R. § 107.20).

<sup>62</sup>U.S. Food and Drug Administration, “FDA Takes Final Step on Infant Formula Protections” (June 9, 2014), accessed April 24, 2019, <https://www.fda.gov/ForConsumers/ConsumerUpdates/ucm048694.htm>.

## Infant-Formula Date Labeling



According to Food and Drug Administration (FDA) documents, in response to infant-formula products that were causing illnesses among children because the products lacked sufficient nutrients and industry had too much discretion to decide the appropriate nutritional content of these products, Congress passed the Infant Formula Act of 1980. The act mandates that FDA set uniform standards for the nutritional content of infant formula. Under this act, FDA established a range of regulations affecting infant formula, including a requirement that its labels include “use by” dates. The regulations mandate that manufacturers determine dates on infant formula based on tests that prove the concentration of nutrients is adequate for the health of children up to the marked date. In addition to displaying a “use by” label, manufacturers are required to regularly test for the harmful pathogens (disease-causing bacteria) *Salmonella* and *Cronobacter* and demonstrate that the infant formula they produce supports normal physical growth.

Sources: GAO analysis of U.S. Department of Agriculture (USDA) and FDA documents; USDA (photo). | GAO-19-407

In addition, since 1993, FDA has published the Food Code, a model for safeguarding public health and ensuring food is unadulterated and honestly presented when offered to the consumer. According to FDA, it represents the agency’s best advice for a uniform system of regulation that address the safety and protection of food offered at retail and in food service, and, while it is not a federal requirement, it is designed to be consistent with federal food laws and regulations.<sup>63</sup> The 2017 FDA Food Code, which is the most recent, contains limited provisions related to date labels applied by manufacturers of packaged foods sold in retail food stores and food-service establishments. For example, the Food Code contains a provision regarding shellfish. It specifies that retailers should only obtain shucked shellfish in packages that identify the “sell by” or “best if used by” date for packages of less than a half-gallon or the date shucked for those of a half-gallon or more.

Additionally, the Food Code’s provisions regarding the labeling of packaged foods state that “food establishment or manufacturers’ dating information on foods may not be concealed or altered.”<sup>64</sup> However, the Food Code is voluntary and does not have provisions for the use of open-code date labels. The Food Code establishes limits for the time that a refrigerated, ready-to-eat food that has been opened or prepared in a food establishment may be held prior to sale or service. The date the food shall be consumed, sold, or discarded must be clearly marked; however, the date is not required to be visible to consumers and is handled separately from the disposition of packaged foods on which a manufacturer has voluntarily placed a date label. The Food Code also specifies how foods prepared in-house using specialized processing methods, such as reduced-oxygen packaging,<sup>65</sup> are to be labeled to

<sup>63</sup>U.S. Food and Drug Administration, *2017 Food Code* (College Park, Md.: 2017). The Food Code is issued in full every 4 years, although FDA may at any time publish supplements updating, modifying, or clarifying certain provisions. According to FDA, local, state, tribal, and federal regulators may use the FDA Food Code as a model to develop or update their own food safety rules and to be consistent with national food regulatory policy.

<sup>64</sup>U.S. Department of Health and Human Services, *Food Code: 2017 Recommendation of the U.S. Public Health Service & Food and Drug Administration* (College Park, Md.: 2017), ep. 138 (2017 Food Code § 3-602.12(B)).

<sup>65</sup>According to the Food Code, reduced-oxygen packaging includes, among other things, (1) vacuum packaging, in which air is removed from a package of food and the package is sealed so that a vacuum remains inside the package; and (2) modified-atmosphere packaging, in which the atmosphere of a package of food is modified so that its composition is different from air.

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ensure they are stored, displayed for sale, or consumed within time limits considered adequate to reduce the risk of foodborne illness.

In October 2017, FDA issued information on its website for consumers with food safety tips for foods purchased or received from a charity or bargain store. For example, according to the information, an expired “sell by” date does not necessarily mean that a food is spoiled or unsafe. However, in some cases, if food has not been handled safely, illness-causing bacteria may grow. In addition, the information states that consumers should avoid purchasing packaged foods that require refrigeration and that are past the “use by” or “sell by” dates because these foods may be perishable and may have begun to spoil.

Moreover, in May 2019, FDA published an educational fact sheet for consumers on reducing food waste while maintaining food safety.<sup>66</sup> This fact sheet includes information about the meaning of language on date labels, as consumers may waste food if they misunderstand what date labels actually mean. For example, it explains that a “best if used by” date indicates that a product will be at its best flavor and quality. On the fact sheet, FDA recommends consumers download USDA’s FoodKeeper app to know how long various food products will keep in the pantry, in the refrigerator, and in the freezer.

Furthermore, FDA has promoted a voluntary industry initiative to standardize approaches to date labeling of packaged foods and improve consumer understanding of the meaning of date labels. In May 2019, FDA issued a letter to industry that described FDA’s position on the voluntary industry standard proposed by the Food Marketing Institute and the Grocery Manufacturers Association in January 2017.<sup>67</sup> This voluntary industry standard called for using the “best if used by” introductory phrase in quality-based date labels on packaged foods. FDA said the agency strongly supports industry’s voluntary efforts to use the “best if used by” introductory phrase when grocery manufacturers choose to include a quality-based date label to indicate when a product will be at its best flavor and quality. While the Food Marketing Institute and the Grocery Manufacturers Association recommended the use of the introductory

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<sup>66</sup>U.S. Food and Drug Administration, *How to Cut Food Waste and Maintain Food Safety* (May 2019), accessed May 28, 2019, <https://www.fda.gov/food/consumers/how-cut-food-waste-and-maintain-food-safety>.

<sup>67</sup>FDA sends letters to industry to provide updates and help industry understand FDA regulations and policies.

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phrase “use by” to indicate the date by which products should be consumed or discarded for safety reasons, FDA did not address the “use by” product date label for safety reasons in the agency’s letter to industry.

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## USDA and FDA Have Taken Steps to Coordinate with Each Other and Some Stakeholders but Have Not Coordinated with Other Stakeholders on an Approach to Date Labels

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### USDA and FDA Have Coordinated on Some Initiatives

USDA and FDA have coordinated on some initiatives focused specifically on date labels on packaged foods. For example, USDA and FDA officials told us the agencies are working together to develop information for food banks, food donors, and recipients of donated food regarding how to interpret date labels on packaged foods donated to food banks to ensure that food that is past the date on the label—but otherwise edible—is not wasted.<sup>68</sup> USDA officials told us the agencies plan to finalize this information in 2019.

USDA and FDA are also collaborating with EPA on an initiative to reduce food loss and waste. In October 2018, USDA, FDA, and EPA signed a formal interagency agreement, referred to by the agencies as the Winning on Reducing Food Waste Initiative. The formal agreement states the agencies are committed to increasing collaboration and coordination in existing federal programs in areas of mutual interest relating to the reduction of food loss and waste, and to developing an interagency

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<sup>68</sup>These educational materials will also provide information on liability protection around food donation, according to agency officials.

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strategy to address this issue. According to USDA's website, as part of this collaborative effort, the agencies agreed to coordinate food loss and waste actions, such as education and outreach, research, community investments, voluntary programs, public-private partnerships, tool development, technical assistance, event participation, and policy discussions on the impacts and importance of reducing food loss and waste.<sup>69</sup> According to the agreement, the agencies will seek to work together at the federal level with actors throughout the entire food supply chain to leverage the private and nongovernmental sectors. Specifically, the agreement states the agencies will seek to educate these actors on best practices to reduce food loss and waste in the growing, manufacturing, transporting, selling and disposing of food, handling, preparation and storage of food, as well as creating new uses for excess food.

After announcing the formal agreement in October 2018, the three agencies in April 2019 announced a federal interagency strategy to prioritize and coordinate their efforts as they implement the formal agreement.<sup>70</sup> This strategy identifies date labeling as a priority action area and states that "establishing and communicating clearer, coordinated voluntary guidance on food date labels and liability protection around food donation could help increase food recovery and lead to reductions in food waste and food insecurity." In the strategy, the agencies state that they built on information from several sources, including EPA and USDA's Call to Action by Stakeholders: United States Food Loss & Waste 2030 Reduction Goal and two reports from nonprofit organizations, all of which

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<sup>69</sup><https://www.usda.gov/foodlossandwaste>. Accessed May 20, 2019.

<sup>70</sup>U.S. Environmental Protection Agency, U.S. Food and Drug Administration, and U.S. Department of Agriculture, *Winning on Reducing Food Waste Federal Interagency Strategy*. EPA, FDA, and USDA developed the interagency strategy to prioritize and coordinate efforts to reduce food loss and waste. One of the six priority areas identified in the strategy is to "clarify and communicate information on food safety, food date labels, and food donations." The strategy states that confusion about food safety guidelines, date labels, and food donation results in food loss and waste at retailers and in homes across the country.

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cited clarifying or standardizing date labels as a key element for food loss and waste reduction efforts.<sup>71</sup>

Establishing a formal agreement is a positive step and aligns with leading practices for interagency collaboration. We have previously found that interagency collaborations benefit from collaborative mechanisms, such as written agreements, in that agencies can strengthen their commitment to working collaboratively,<sup>72</sup> which USDA and FDA have done.

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### USDA and FDA Have Taken Steps to Work with Some Nonfederal Stakeholders to Address Date Labels but Have Not Coordinated with Others

In addition to steps they have taken toward interagency collaboration, USDA and FDA have taken steps to work with some nonfederal stakeholders—nonprofit organizations and an international organization—on date labeling. For example, in February 2019, USDA, EPA, and FDA met with NRDC and the Ad Council to discuss campaigns to inform the public about ways to reduce food loss and waste, which includes consumer education on date labeling. According to FDA officials, the agencies will meet with the two groups later in 2019 to continue this discussion. In addition, in April 2019, in keeping with the goal in the agencies' Winning on Reducing Food Waste Initiative to expand collaboration with nonfederal stakeholders, EPA, FDA, and USDA signed a formal agreement with ReFED to collaborate on efforts to reduce food loss and waste.<sup>73</sup> The agreement outlines actions the agencies and ReFED agree to take, including that the agencies will consult with ReFED to develop approaches for measuring the success of various strategies and techniques being deployed nationwide to reduce food waste.

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<sup>71</sup>EPA hosted a Food Recovery Summit in November 2015, at which participants identified several key actions for reducing food loss and waste, including clarifying date labels. Based on this summit and continued input, EPA, USDA, and stakeholders from across the food supply chain developed a collaborative Call to Action, which identifies current opportunities and challenges in reducing food loss and waste in the United States. The two reports are Rethink Food Waste Through Economics and Data (ReFED), *A Roadmap to Reduce U.S. Food Waste by 20 Percent*, and Natural Resources Defense Council and Harvard Food Law and Policy Clinic, *Don't Waste, Donate: Enhancing Food Donations through Federal Policy*.

<sup>72</sup>[GAO-12-1022](#).

<sup>73</sup>U.S. Environmental Protection Agency, U.S. Department of Agriculture, and U.S. Food and Drug Administration, *Formal Agreement Among the United States Environmental Protection Agency and the United States Food and Drug Administration and the United States Department of Agriculture Relative to a Federal – Nongovernmental Organization Formal Agreement with Rethink Food Waste Through Economics and Data (ReFED) Inc. in Order to Better Evaluate and Improve Upon Strategies to Reduce Food Loss and Waste* (Washington, D.C.: April 2019).

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Furthermore, USDA and FDA provide senior staff and executive delegates to represent the United States at the Codex Alimentarius Committee on Food Labelling, among other committees under the purview of the Codex Alimentarius Commission. The commission, an international intergovernmental body, produces the Codex Alimentarius,<sup>74</sup> or “Food Code,” a collection of standards, guidelines, and codes of practice related to food, food production, and food safety. In 2018, the commission revised its voluntary guidance on date labeling to clarify the distinction between dates based on food quality and those based on food safety.<sup>75</sup> Because the Codex Alimentarius is a voluntary reference standard, its guidance, including on date labels, is not binding on member countries, including the United States.

However, USDA and FDA have not consulted with all relevant stakeholders. For example, state and local officials we spoke with told us that USDA and FDA had not collaborated with them or consulted them on approaches to date labels. In our prior work, we identified a leading practice for interagency collaboration that calls for ensuring that the relevant participants are included in interagency collaborative efforts.<sup>76</sup> Such efforts can include other federal agencies; state, local, and tribal governments; industry; and nonprofit advocacy organizations. Generally, state, local and tribal governments may choose whether to regulate date labels on packaged foods. For example, the majority of states and the District of Columbia have date labeling requirements. Advocacy organizations and state officials told us that efforts at reducing consumer confusion about date labels could be hindered without federal leadership, as states may continue to have varying approaches. USDA and FDA officials told us that they did not have a specific mechanism to coordinate or consult with state, local, or tribal officials on creating a common approach to date labels. By developing a mechanism to facilitate coordination with nonfederal stakeholders—including state, local, and tribal governments—on actions related to date labels as part of their efforts to reduce food loss and waste, USDA and FDA could better assure

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<sup>74</sup>The *Codex Alimentarius* Commission was established by the Food and Agriculture Organization of the United Nations and the World Health Organization in 1963. According to the *Codex Alimentarius* Commission website, the *Codex Alimentarius*'s food standards and related texts aim at protecting consumers' health and ensuring fair practices in the food trade.

<sup>75</sup>*Codex Alimentarius* Commission, *General Standard for the Labelling of Prepackaged Foods*, CXS 1-1985, Rev. 2018.

<sup>76</sup>[GAO-12-1022](#).

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that approaches they take to address consumer understanding of date labels are effective in helping reduce consumer confusion and resulting effects such as wasted food.

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## Conclusions

USDA and FDA have taken important steps toward reducing consumer confusion about date labels by, among other things, providing information to consumers and, in USDA's case, by conducting research on food waste. In addition, in October 2018, USDA, FDA, and EPA signed a formal agreement aimed at improving coordination and communication across federal agencies to educate Americans about the benefits of reducing food loss and waste.

However, although USDA and FDA have taken steps to work with some nonfederal stakeholders, such as ReFED, on date labels, they have not worked with state, local, and tribal governments. We have identified that ensuring relevant stakeholders have been included in the collaborative effort as a leading collaboration practice. By developing a mechanism to facilitate coordination with relevant nonfederal stakeholders on actions related to date labels as part of their efforts to reduce food loss and waste, USDA and FDA could better assure that approaches they take to address consumer understanding of date labels are effective in helping reduce consumer confusion and resulting effects such as wasted food.

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## Recommendations for Executive Action

We are making two recommendations to the agencies in our review:

- The Secretary of Agriculture should work with the Commissioner of FDA to develop a mechanism to facilitate coordination with relevant nonfederal stakeholders, including state, local, and tribal governments, on actions related to date labels as part of their efforts to reduce food loss and waste. (Recommendation 1)
- The Commissioner of FDA should work with the Secretary of Agriculture to develop a mechanism to facilitate coordination with relevant nonfederal stakeholders, including state, local, and tribal governments, on actions related to date labels as part of their efforts to reduce food loss and waste. (Recommendation 2)

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## Agency Comments and Our Evaluation

We provided a draft of this report to the Departments of Agriculture and Health and Human Services for review and comment. In its comments, reproduced in appendix I, USDA agreed with our recommendation to the agency and described current and future actions to implement the



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recommendation. Similarly, in its comments, reproduced in appendix II, the Department of Health and Human Services agreed with our recommendation to it and described current and future actions to implement the recommendation. USDA and the Department of Health and Human Services provided technical comments, which we incorporated as appropriate.

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We are sending copies of this report to the appropriate congressional committees; the Secretaries of Agriculture and Health and Human Services; and other interested parties. In addition, the report will be available at no charge on the GAO website at <http://www.gao.gov>.

If you or your staff members have any questions about this report, please contact me at (202) 512-3841 or [morriss@gao.gov](mailto:morriss@gao.gov). Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff members who made contributions to this report are listed in appendix III.

A handwritten signature in black ink that reads "Steve D. Morris". The signature is written in a cursive, slightly slanted style.

Steve D. Morris  
Director, Natural Resources and Environment

# Appendix I: Comments from the U.S. Department of Agriculture



United States Department of Agriculture

Office of the Secretary  
Washington, D.C. 20250

JUL 31 2019

Mr. Steve Morris  
Director  
Natural Resources and the Environment  
U.S. Government and Accountability Office  
Washington, D.C. 20548

Dear Mr. Morris:

Thank you for the opportunity to review and comment on the U.S. Government Accountability Office's (GAO) draft report, "Date Labels on Packaged Foods (GAO-19-407)." This letter provides the U.S. Department of Agriculture's (USDA) response to GAO's draft report recommendations, findings, and conclusions.

The USDA agrees with GAO's recommendation to the Department to work with the Commissioner of the Food and Drug Administration (FDA) to develop a mechanism to facilitate coordination with relevant non-Federal stakeholders, including state, local and tribal governments on actions related to date labels as part of their efforts to reduce food loss and waste. We anticipate this effort will facilitate coordination and focus on outreach to clarify Federal regulations and recommendations on date labeling and food safety.

The agencies currently have a formalized commitment to the strategic plan, Winning on Reducing Food Waste Initiative which was launched by USDA, FDA and the Environmental Protection Agency in October 2018. The Initiative identifies six priority actions, one of which is to "clarify and communicate information on food safety, food date labels, and food donations." USDA and FDA have begun laying the groundwork for increased outreach and input from key stakeholders through collaboration on the development of educational material.

USDA is committed to working with FDA to educate consumers, engage key stakeholders, and develop and evaluate solutions to reduce food loss and waste. Reducing food waste is a shared responsibility, and coordination between agencies at all levels of the U.S. Government will remain critical to meet the National reduction goal of reducing food loss and waste by 50 percent by 2030.

USDA also agrees with GAO's general findings and conclusions in the draft report. We suggest, however, a number of clarifying and factual edits, which we have forwarded to the GAO point of contact.

Sincerely,

A handwritten signature in blue ink that reads "Sonny Perdue".

Sonny Perdue  
Secretary

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# Appendix II: Comments from the U.S. Department of Health and Human Services



DEPARTMENT OF HEALTH & HUMAN SERVICES

OFFICE OF THE SECRETARY

Assistant Secretary for Legislation  
Washington, DC 20201

JUL 2 5 2019

Steve Morris  
Director, Natural Resources and Environment  
U.S. Government Accountability Office  
441 G Street NW  
Washington, DC 20548

Dear Mr. Morris:

Attached are comments on the U.S. Government Accountability Office's (GAO) report entitled, "*Date Labels on Packaged Foods: USDA and FDA Could Take Additional Steps to Reduce Consumer Confusion*" (GAO-19-407).

The Department appreciates the opportunity to review this report prior to publication.

Sincerely,

A handwritten signature in black ink, appearing to read "for Sarah Arbes".

Sarah Arbes  
Acting Assistant Secretary for Legislation

Attachment

**GENERAL COMMENTS FROM THE DEPARTMENT OF HEALTH & HUMAN SERVICES ON THE GOVERNMENT ACCOUNTABILITY OFFICE'S DRAFT REPORT ENTITLED – DATE LABELS ON PACKAGED FOODS: USDA AND FDA COULD TAKE ADDITIONAL STEPS TO REDUCE CONSUMER CONFUSION (GAO-19-407)**

The U.S. Department of Health & Human Services (HHS) appreciates the opportunity from the Government Accountability Office (GAO) to review and comment on this draft report. The Food and Drug Administration (FDA) is committed to working with U.S. Department of Agriculture (USDA) to educate consumers, engage key stakeholders, and develop and evaluate solutions to reduce food loss and waste, specifically related to date labeling on food products. Reducing food waste is a shared responsibility and, coordination between agencies at all levels of government will remain critical to meet the national reduction goal of reducing food loss and waste by 50 percent by 2030.

**Recommendation**

The Commissioner of FDA should work with the Secretary of Agriculture to develop a mechanism to facilitate coordination with relevant nonfederal stakeholders, including state, local and tribal governments, on actions related to date labels as part of their efforts to reduce food loss and waste.

**HHS Response**

HHS concurs with GAO's recommendation.

FDA agrees that enhancing coordination with relevant nonfederal stakeholders on actions related to date labels can have a positive impact on efforts to reduce food loss and waste in the U.S. FDA has a long history of working collaboratively with other federal regulatory agencies through the integrated food safety system to provide oversight to the packaged food industry. As part of this collaboration, FDA and other federal agencies connect with nonfederal stakeholders through a variety of mechanisms necessary to provide diverse industry partners access. To effectively engage all relevant stakeholders, FDA will consider ways to enhance mechanisms currently in place and coordinate with USDA on potential ways to better address issues related to date labels on packaged foods and their impact on food waste.

For many food industry sectors and related regulatory programs, mechanisms currently exist to facilitate coordination among relevant stakeholders, including engagement through State Cooperative Programs. FDA has established Memoranda of Understanding with many State Cooperative Programs, which include procedures for stakeholders from government, industry, academia, and the public to actively engage in discussion with the agency. FDA maintains open dialog with organizations, including the National Association of State Departments of Agriculture, the Association of Food and Drug Officials, the National Association of State and Territorial Health Officials, the National Association of City and County Health Officials, and the National Environmental Health Association, whose memberships comprise public officials from state, local, and tribal governments. These groups are valuable partners in developing solutions to problems associated with the way foods are produced, marketed, and consumed. FDA will continue to use these existing mechanisms to gain insights on date labeling of packaged foods to improve industry practice, government oversight, and public understanding of mechanisms that can reduce the amount of food that goes to waste in the United States.

**GENERAL COMMENTS FROM THE DEPARTMENT OF HEALTH & HUMAN SERVICES ON THE GOVERNMENT ACCOUNTABILITY OFFICE'S DRAFT REPORT ENTITLED – DATE LABELS ON PACKAGED FOODS: USDA AND FDA COULD TAKE ADDITIONAL STEPS TO REDUCE CONSUMER CONFUSION (GAO-19-407)**

FDA also remains committed to working with nongovernmental partners to educate Americans on date labeling and how to reduce food waste. As FDA continues to develop materials related to date labeling, we will work collaboratively with USDA to facilitate coordination with relevant nonfederal stakeholders. FDA, along with USDA and EPA, continues to strengthen partnerships with nonfederal stakeholders such as ReFED and the Food Waste Reduction Alliance, comprised of the Grocery Manufacturers Association, the Food Marketing Institute, and the National Restaurant Association. For example, FDA and USDA participated in a 2017 multi-stakeholder effort spearheaded by ReFED to develop a Date Labeling Decision Tree Tool for manufacturers of packaged foods. That effort involved representatives from a wide range of companies, trade associations, non-profit organizations, and universities.

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# Appendix III: GAO Contact and Staff Acknowledgments

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## GAO Contact

Steve Morris, (202) 512-3841 or [morriss@gao.gov](mailto:morriss@gao.gov)

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## Staff Acknowledgments

In addition to the contact named above, Anne K. Johnson (Assistant Director), David Bennett (Analyst-in-Charge), Tara Congdon, and Jordan Mettica made key contributions to this report. Carol Bray, Kevin Bray, Serena Lo, Oliver Richard, Danny Royer, Kiki Theodoropoulos, and Sarah Veale also contributed to this report.

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U.S. Government Accountability Office, 441 G Street NW, Room 7125,  
Washington, DC 20548

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Chuck Young, Managing Director, [youngc1@gao.gov](mailto:youngc1@gao.gov), (202) 512-4800  
U.S. Government Accountability Office, 441 G Street NW, Room 7149  
Washington, DC 20548

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## Strategic Planning and External Liaison

James-Christian Blockwood, Managing Director, [spel@gao.gov](mailto:spel@gao.gov), (202) 512-4707  
U.S. Government Accountability Office, 441 G Street NW, Room 7814,  
Washington, DC 20548



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