Priority Area 1: Enhance Interagency Coordination.

Improving interagency coordination will enable USDA, EPA, and FDA to use government resources more efficiently and effectively. An interagency, collaborative mechanism will be established to reduce programmatic redundancies and leverage complementary activities.

Joint Efforts

- Formed the ‘Federal Interagency Food Loss and Waste Working Group (FIFLAW)’ of core EPA, FDA, and USDA food loss and waste (FLW) staff to work on federal interagency efforts around FLW activities in April 2020 and during this current review period, met several times per month to share, initiate, plan, and coordinate food loss and waste activities.
- On December 17, 2020, the three agencies renewed the joint agency formal agreement for an additional three years affirming their shared commitment to work towards the national goal of reducing food loss and waste by 50 percent by 2030; and agreeing to coordinate on actions such as education and outreach, research, community investments, voluntary programs, public-private partnerships, tool development, technical assistance, event participation, and policy discussion on the impacts and importance of reducing food loss and waste.
- Press Releases:
  - [USDA Press Release](December 2020).
  - [EPA press release](December 2020).

USDA Food Loss and Waste Liaison:

- In response to Congress’ request, USDA continued to support the USDA Food Loss and Waste Liaison to enhance interagency coordination.
- Shared current projects/initiatives related to food waste in a meeting on Food Waste Work with EPA, DOE, USDA, and FDA, the federal agencies. USDA presented “Select USDA Activities on Food Loss and Waste” (September 17, 2020).
- Organized and invited Sachin Nimbalkar and Kristina Armstrong (Oak Ridge National Lab, which is a multiprogram research laboratory managed by UT-Battelle, LLC, for the U.S. Department of Energy (DOE)) to give a presentation “U.S. Food Supply Chain Waste Analysis” to USDA FLW measurement staff on August 3, 2020.
USDA National Institute for Food and Agriculture (NIFA) developed a “Food Loss and Waste Template for Agency Action,” which was shared with EPA and FDA.

Food loss and waste was a critical part of former USDA Secretary Perdue’s Agriculture Innovation Agenda in 2020.

EPA

Continued interagency meeting participation.

Priority Area 2: Increase Consumer Education and Outreach Efforts.

Households are a major source of food loss and waste in the United States. Most consumers are unaware of the consequences of food loss and waste. A coordinated consumer education effort by USDA, EPA, and FDA, in conjunction with public, private, or nonprofit partners, has the potential to raise awareness, motivate consumers to take action, and accelerate progress to reduce food loss and waste.

Joint Efforts

- The Federal Interagency Food Loss and Waste Collaboration organized a session on April 23, 2021 at the Smithsonian Institute’s Earth Optimism 2021, entitled "Take Easy Action for Less Wasted Food at Home." Presenters shared tips and interactive tools for food prep and storage, demonstrated meal planning, and introduced the basics of composting. 834 participants registered.
- October 2020. Representatives of FDA, USDA and EPA and the National Academies of Science, Engineering and Medicine met to gain insight and strategies for responding to the recommendations made in NASEM’s August 2020 Publication titled A National Strategy to Reduce Food Waste at the Consumer Level

USDA

Professional Conferences:

- 2021 Agricultural Outlook Forum. U.S. Food Loss and Waste Liaison initiated and proposed as session titled for the 97th Annual USDA Agricultural Outlook Forum held in February 2021. The Forum is USDA’s largest annual gathering, bringing together industry decisionmakers, and leaders. The session, “Food Loss and Waste in the Time of COVID”, featured Chavonda Jacobs-Young (ARS Administrator) as moderator and the following speakers: (1) Jean Buzby, USDA Food Loss and Waste Liaison summarized the innovative Federal responses to COVID that resulted in food loss and waste reduction. (2) Dania E. Rodriguez Executive Director, Association of State and Territorial Solid Waste Management Officials (ASTSWMO) discussed actions taken and tailored to the needs of states and regions, including food loss and waste reduction. (3) Kari Armbruster, The Kroger Company, Zero Waste Zero Hunger Program Manager spoke about Kroger’s food waste reduction activities. (February 19, 2021).
- Discussant in session titled “Response from Experts Practitioners: Methods of Fighting Food loss and Waste” at the Women Forward International’s Spring Presentation entitled Nourishing Minds in the United States: Delivering the Abundance to those in Need - with Love on June 2, 2020, hosted by University of California, Berkeley Goldman School of Public Policy with White Pony Express.
- November 12, 2020. “Tools to Fight Food waste in Schools – Adjusting to the New Normal” Webinar. USDA Food and Nutrition Service presented on a webinar organized by the World Wildlife Fund (WWF) and in collaboration with the National Academies of Sciences. USDA provided resources to schools to help them reduce food waste in-school and when meals are delivered or picked up. Some ideas and resources shared with schools include offer-versus-serve (OVS), share tables, food donation, food waste audits, taste test activities, and best practices on providing multiple meals as part of the COVID-19 waivers. On the webinar, WWF shared its Food Waste
Warrior curriculum, which helps teachers and students connect our food system with nature and provides hands-on learning opportunities to empower the next generation of conservationists to reduce waste.

- During the COVID-19 pandemic, USDA Food and Nutrition Service created best practice guides for schools and child-care providers to help them when they provide multiple meals at a time and/or allow for parent pick-up of meals and snacks during the pandemic. The guides can help schools reduce food and packaging waste by allowing them to provide foods that are shelf stable (uncooked pasta) or larger in size (i.e., providing a gallon of milk vs. cups or quarts of milk). You can find all the COVID-19 resources for schools here.

- USDA Tweets (examples):
  - In observance of FAO’s World Food Day, USDA had 2 new FLW tweets (October 16, 2020).
  - In observance of FAO’s ‘First International Day of Awareness of Food Loss and Waste,’ USDA also tweeted along with FDA (4 FLW tweets) and EPA (over 12 tweets) (September 29, 2021).

- USDA Newsletters:
  - USDA Food Loss and Waste News, April 2021
  - USDA Food Loss and Waste News, November 2020
  - USDA Food Loss and Waste News, October 2020
  - USDA Food Loss and Waste News, September 2020

- USDA Blogs:
  - “How to Reduce Food Waste at Home” (June 8, 2020).
  - “Federal Incentives for Businesses to Donate Food” (July 8, 2020).
  - “Good Samaritan Act Provides Liability Protection For Food Donations” (August 13, 2020).
  - “Three Key Messages from the First International Day of Awareness of Food Loss and Waste” (September 29, 2020).
  - “ReFED Launches Insights Engine with Implications for Food Waste: An Interview with Dana Gunders,” (February 2, 2021).

- Media outreach: USDA Food Loss and Waste Liaison Jean Buzby has been highlighted in media coverage resulting from news releases, convenings, and media interviews. Coverage examples include:

- Radio:
  - March 26, 2021. Jean Buzby (USDA Food Loss and Waste Liaison) was interviewed by Stephanie Ho for USDA Radio News, which resulted in: (1) “One Earth Day Focus for USDA is Reducing Food Loss.
and Waste” posted April 20, 2021 (Broadcast 02, Duration 00:2:59.983), (2) “Reducing Food Loss and Waste is One Earth Day Focus” posted April 16, 2021 (Broadcast 09, Duration 59.97 seconds), (3) “U.S. Government Agencies Work Together to Fight Food Loss and Waste” posted April 16, 2021 (Broadcast 10, Duration 59.97 seconds) and (4) “Actuality: Food in Landfills Creates More Methane Gas” posted on April 16, 2021 (Broadcast 11, Duration 17.005 seconds).


November 20, 2020. Jean Buzby (USDA Food Loss and Waste Liaison) was interviewed by Rodney Bain for USDA Radio News, which resulted in: (1) “New U.S. Food Loss and Waste Champions Announced” posted November 25, 2020 (Broadcast 05, Duration 59.794 seconds), (2) “Actuality: Food Loss and Waste 2030 Champions Initiative” posted November 25, 2020 (Broadcast 06, Duration 55.66 seconds), and (3) “Championing Food Loss and Waste Reduction in America” posted December 29, 2020 (Broadcast 06, Duration: 00:02:32.137).

April 2021. In observance of Earth Day (April 22) and Stop Food Waste Day (April 28), USDA released a set of consumer outreach materials on tips to reduce food waste include:
- PSA Video: USDA Tips to Reduce Food Waste at Home (YouTube)
- Infographic “Infographic: Easy Steps to Prevent Food Waste (PDF, 97.8 KB) and Easy Steps to Prevent Food Waste (PNG, 76.0 KB). A series of infographic images was also featured on USDA’s Twitter and Instagram accounts.
- Soundbites and b-roll: USDA Tips to Reduce Food Waste at Home (YouTube)
- PSA Video/Soundbites and b-roll: USDA Tips to Reduce Food Waste at Home (Vimeo)

Other social media – USDA social media channels are sharing news on USDA grants and resources that combat food waste, news on food industry innovations to combat FLW, and amplifying EPA and FDA news.

EPA
- Release of the Food Stewards Toolkit and Food Stewards Web Content, September 2020 (https://www.epa.gov/sustainable-management-food/food-stewards)
- Participation at the digital WasteExpo event, September 2020 Keynote Session: Progress on Food Waste Prevention, Reduction, & Recovery
- Continues to advance wasted food policy and practices;
- Shares measurement tools to reduce food waste and drive prevention

FDA
- FDA developed four new video animation shorts that inform consumers about the impact of food waste and provide tips and strategies for how individuals and families can be part of the solution. The videos have been made available on FDA Food Loss and Waste webpage, have been featured in FDA Social Media posts, and will be highlighted in an April 2021 promotional campaign (includes stakeholder outreach, social media outreach, and paid online advertisements) to raise awareness of the issues among consumers. The videos are:
  - Tips for Reducing Food Waste
  - Understanding Date Labels on Food Packages
  - Imperfect Produce
  - Food Waste Facts
- FDA added to its series of printable infographics available for use by industry, educators and consumers on topics related to food waste. The fifth infographic titled “Confused about what the date labels on food
packages mean?” was made available on www.fda.gov

- FDA published a consumer PR Newswire release in September 2020, titled “Reduce Food Waste and Stretch Your Food Dollars” (released in English and Spanish). The release was picked up by 229 media outlets and consumers who viewed the PR Newswire release were able to learn actional and practical tips for reducing food waste at the grocery store, when cooking at home, and in their community.
- FDA included a New Year’s resolution themed blurb about the impact of food waste and how health educators and consumers can be a part of the solution (included links to FDA’s food waste education resources) in its January News for Educators Newsletter.
- FDA posted food waste related messages on social media throughout the year. Posts are often timed to coincide with related observances, such as FAO’s ‘First International Day of Awareness of Food Loss and Waste’ and Earth Day.

Priority Area 3: Improve Coordination and Guidance on Food Loss and Waste Measurement.
Enhanced coordination and voluntary guidance regarding measurement of food loss and waste will reduce confusion and help establish clearer goals and strategies. Improved and coordinated methodologies can identify missed opportunities and better communicate progress.

Joint Efforts

- USDA and EPA worked to improve and update measurement of food loss and waste within their respective mission areas. The agencies continue to coordinate and leverage their efforts to provide a more complete assessment of food loss and waste amounts in the United States.

USDA

- Food Loss Estimation Studies Underway:
  - In September 2019, USDA’s Economic Research Service (ERS) entered into a cooperative agreement with Ted Jaenicke from Pennsylvania State University to review the accuracy and validity of new consumer-level loss estimates developed by RTI International in 2018 under a grant from ERS. Under the agreement, Jaenicke and his team will compare the new RTI-generated consumer-level loss factors against estimates and information from a modified and extended stochastic production frontier model in which food waste is identified as an input inefficiency. The model is explained here, Yang Yu, Edward C. Jaenicke. Estimating Food Waste as Household Production Inefficiency. American Journal of Agricultural Economics, 2020; DOI: 10.1002/ajae.12036
  - ERS has an ongoing contract with RTI International to develop new retail-level loss estimates for the Loss Adjusted Food Availability (LAFA) commodities. A recent General Accountability Office report, Food Loss and Waste: Building on Existing Federal Efforts Could Help Achieve National Reduction Goal, identified limited data and information about food loss and waste as one of three key areas in which challenges exist to reducing food loss and waste.
  - In FY20, ERS and USDA’s Office of the Chief Economist (OCE) entered into a contract with RTI International to obtain two additional years of consumer level loss estimates.
presented its new, enhanced methodology for estimating generation and management of wasted food in the United States, as well as the resulting estimates. This enhanced methodology expands upon EPA’s previous approach by including additional sectors that generate waste, and accounting for several new additional methods for managing wasted food. Presentation #2: Food Loss Estimation in ERS’s Loss Adjusted Food Availability Data Series (LAFA) by Linda Kantor, USDA’s Economic Research Service, Food Economics Division. ERS presented recent initiatives to update loss shares at the consumer and retail levels for the 200+ commodities in the LAFA series. A new retail-level loss study will collect nationally representative data from food retailers (e.g. grocery stores, supermarkets, club stores, and supercenters), to estimate food loss and waste as well as the key drivers of food loss at the retail level. Consumer-level loss factors for LAFA foods will be estimated for 2015-16 and 2017-2018 by comparing household food purchases captured from supermarket scanner data with food intake data for the same foods from USDA’s What We Eat in America survey.

EPA

- July 16, released the Wasted Food Measurement Methodology Scoping Memo
- November 2020 released the Wasted Food Report and updated web content
- 2020, EPA revised its wasted food measurement methodology: Facts and Figures about Materials, Waste and Recycling

Priority Area 4: Clarify and Disseminate Information on Food Safety, Food Date Labels, and Food Donations.
Confusion about food safety, date labels, and food donation results in food loss and waste in groceries and in homes across the country. Clearer, coordinated guidance on the meaning of date labels and coordination on donation opportunities and benefits could spur reduction in both waste and food insecurity.

USDA

- Professional Meetings/Webinars:
  - February 25, 2021. The Harvard Law School Food Law and Policy Clinic in partnership with the Global FoodBanking Network, Jean Buzby (USDA Food Loss and Waste Liaison) was panelist for a webinar, “Exploring the Role of Liability Protection in Facilitating Increased Food Donation” and gave a presentation on liability protection for donating food in the United States (e.g., Bill Emerson Good Samaritan Food Donation Act).
  - January 28, 2021. The Harvard Law School Food Law and Policy Clinic in partnership with the Global FoodBanking Network, Jean Buzby (USDA Food Loss and Waste Liaison) was panelist for a webinar, “Exploring Global Policy Solutions to Increase Food Donation and Support Food Recovery During the COVID-19 Pandemic and Beyond” and presented “food donation and food waste laws in the United States”.
  - November 12, 2020. Jean Buzby (USDA Food Loss and Waste Liaison) was invited by Marsha A. Echols (Professor, Director, The World Food Law Institute, Howard University School of Law, Washington, D.C.) to give a virtual presentation currently titled “Research, Development, and Commercialization of Innovative Products that Reduce Food Loss and Waste: A Focus on Federal Activities” in the panel titled “Transforming Food Loss into Commercial and Nutritional Innovations” at the 2020 World Food Law Institute Symposium "Transforming Food Loss into Commercial and
Nutritional Innovations, Collaborations for Creative Financing and Supportive Legal Approaches”. This Symposium is an annual event and is sponsored by The World Food Law Institute (WFLI) and the Food and Agriculture Organization of the United Nations (FAO) and is featuring trends and case studies examining relevant topics in food law.

- Meeting/Committee Work: November 12, 2020. Jean Buzby (USDA Food Loss and Waste Liaison) was invited by Rebecca Perrin (Designated Federal Officer for Farm, Ranch, and Rural Communities Committee, Office of the Administrator, EPA) to give a virtual presentation on USDA’s food loss and waste activities for the EPA Farm, Ranch and Rural Communities Federal Advisory Committee Meeting on Nov 12, 2020. The EPA Farm Ranch and Rural Communities Federal Advisory Committee wanted to learn more about what EPA and USDA are doing in the area of food loss and waste and their respective authorities. Starting February 8, 2021, this group is meeting quarterly.

FDA

- FDA served on a roundtable at the 2020 Annual Conference of the International Association of Food Protection in a session titled A Balancing Act: Minimizing Food Waste While Striving to Maximize Food Safety.
- FDA representatives met with members of the Safe Food Coalition and the Make Our Food Safe Coalition to share insights on the respective organizations’ positions on voluntary efforts to standardize date labeling of packaged foods and its relationship to food safety (February 2020)
- FDA has actively served on the AFDO Food Recovery Committee of the Association of Food and Drug Officials (AFDO) that is charged with:
  - researching the issue of date labeling as barrier to food donation,
  - tracking legislative activities related to date labeling; and
  - identifying solutions to food donation barriers.

Priority Area 5: Collaborate with Private Industry to Reduce Food Loss and Waste Across the Supply Chain.
The food industry, including processors, manufacturers, distributors, retailers, and food service establishments, has an important role in reducing food loss and waste. Showcasing and building partnerships through efforts such as the USDA/EPA U.S. Food Loss and Waste 2030 Champions, as well as connecting stakeholders with food waste reduction technologies, will help stimulate further efforts throughout the food supply chain.

Joint Efforts

- December 10, 2020. EPA and USDA hosted a virtual meeting to convene existing and welcome new U.S. Food Loss and Waste 2030 Champions.
- EPA and USDA welcomed four new 2030 Champions to the group from May 2020 – April 2021 (Amazon, Meijer, UNFI, and FireKeepers).
- Press releases:
  - UNFI and Meijer join the U.S. Food Loss and Waste 2030 Champions (November 12, 2020).
Amazon joins the U.S. Food Loss and Waste 2030 Champions (October 16, 2020).

- EPA press release (October 2020).


USDA Natural Resources Conservation Service’s (NRCS) Office of Urban Agriculture and Innovative Production Internal Advisory Committee Members (OUAIP-IAC), discussed the awardees of the 2020 National Funding Opportunities (NFO) on “Community Compost and Food Waste Reduction Cooperative Agreements (CCFWR) and reviewed the 2021 NFO. The 2021 NFO is expected to be published soon on Grants.gov.


In May 2020, USDA released a U.S. Food Loss and Waste 2030 Champions Milestones Report (PDF, 2.4 MB). This report highlights best practices from select 2030 Champions – including grocery stores, restaurants, food manufacturers, food service, hospitality, and entertainment companies – demonstrating how they have succeeded in reducing food loss and waste in their operations.

Cooperative Research Agreements and Developments Underway

- Material Transfer Research Agreement, Jones Laffin Company Inc., to work on research related to the use of extracted citrus seed, dairy and plant proteins for the improvement of orange juice flavor, (Agreement# 58-6034-9-024) May 1, 2019.
- Cooperative Research and Development Agreement with a fresh-cut processor and the Food Quality Laboratory at the USDA-ARS, Beltsville, MD has teamed up to develop and test a technology to extend shelf life and reduce post-harvest loss of fresh vegetables (Agreement is pending).
- Cooperative Research and Development Agreement with Revive Genomics, UC San Diego, Food Quality Laboratory at the USDA-ARS, Beltsville, MD and Bioprodex to develop a broad-spectrum nanomaterial using generally recognized as safe (GRAS) compounds for broad spectrum control of pre and postharvest fungi. (Agreement is pending). Cooperative Research and Development Agreement, California Olive Ranch [large California olive oil processor], to establish a valorization process for olive pomace, the semisolid co-product of olive oil processing, (Agreement 2030-41000-064-25C) October 1, 2018 to September 30, 2020.
• C Development Agreement, ReGrained [California startup company], to develop methods for upcycling brewers spent grains into snack bars, (Agreement 2030-41440-007-05C) May 1, 2016 to July 30, 2020.

Patents
• ARS innovation now patented for ‘Intermittent Infrared drying of brewery-spent grain’ and this technology is now being used commercially to solve FLW related issues.

FDA
• Kevin Smith presented an FDA perspective on the impact of COVID-19 on food waste strategies to the quarterly meeting of the Food Waste Reduction Alliance (made up members representing the National Restaurant Association, Food Marketing Institute, and the Consumer Brands Association (May 2020)

Priority Area 6: Encourage Food Waste Reduction by Federal Agencies in their Respective Facilities.
Federal facilities operate food service venues, including cafeterias and concessions, and manage events. Encouraging the reduction of food loss and waste at these facilities and events will demonstrate federal leadership and implementation of the administration’s priorities

Joint Efforts
• Ongoing discussion with federal facilities and agency representatives to share reducing wasted food strategies and opportunities for engagement.

For more information on the Federal Interagency food loss and waste collaboration, visit:

https://www.usda.gov/foodlossandwaste
https://www.epa.gov/sustainable-management-food