

Why We Dump (Not So) Spoiled Milk: A Discussion of America's Food Waste Problem and a Call for Federal Action

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I.INTRODUCTION	192
II.IMPACTS OF THE FOOD WASTE PROBLEM	193
A. Environmental Impacts	194
B. Economic Impacts	195
C. Social Impacts	195
III.STATE, LOCAL & FEDERAL RESPONSES TO THE FOOD WASTE PROBLEM	196
A. Prevention	196
1. State Action	197
2. Local Action	198
3. Federal Action	199
B. Recovery	200
1. State Action	200
2. Federal Action	201
C. Recycling	203
1. State Action	203
a. California	203
b. Vermont.....	204
c. Connecticut.....	205
d. Massachusetts	206
e. Rhode Island.....	206
2. Local Action	207
3. Federal Action	208
IV.SOLUTIONS TO THE FOOD WASTE PROBLEM.....	210
A. Enact a Federal Uniform Date Labeling Law.....	210
B. Reduce Portion Sizes in Consumer-Facing Businesses.....	211
C. Expand Liability Protections Afforded Under the Emerson Act..	213

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D. Create a Federal Organic Infrastructure Fund	214
V.CONCLUSION.....	215

I. INTRODUCTION

Food waste is a national problem that drastically and detrimentally effects the natural environment. From production to plate to landfill, an estimated 40% of food produced in the United States is wasted every year by consumers, businesses, manufacturers, processors, and farmers.¹

Food waste is defined as “edible food material intended for human consumption that is discarded before it is consumed.”² In the United States, 63 million tons of food waste is generated annually.³ The greatest percentage of waste generation occurs at the end of the supply chain, with approximately 40% generated in consumer-facing businesses—i.e. supermarkets and restaurants—and 43% generated directly by consumers.⁴ Manufacturing and processing accounts for 2% of waste, and farming accounts for 16% of annual food waste generation.⁵ Nearly 26% of all food produced for human consumption is lost⁶ or wasted at the consumer level each year, accounting for 225-290 pounds of food waste, per person, per year.⁷ United States consumers waste nearly one pound of food per day.⁸ The majority of consumer-level waste results from improper handling and storage, excessive portion sizes, food appearance, consumer taste, and inaccurate or confusing date labels.⁹ On a global scale, the United Nations

¹ *Federal Enhanced Tax Donation for Food Donation: A Legal Guide*, HARVARD FOOD LAW & POLICY CLINIC 1 (April 2016), [hereinafter *Federal Tax Donation Guide*], <https://www.chlpi.org/wp-content/uploads/2013/12/Food-Donation-Fed-Tax-Guide-for-Pub-2.pdf>.

² *Reducing Food Waste: Recommendations to the 2015 Dietary Guidelines Advisory Committee*, TUFTS UNIV., https://health.gov/dietaryguidelines/dga2015/comments/uploads/CID430_Tufts_University-Reducing_Food_Waste-_DGAC_Comment.pdf (last visited April 2, 2019).

³ *Solutions to Food Waste*, REFED, <https://www.refed.com/?sort=economic-value-per-ton> (last visited April 2, 2019) [hereinafter *ReFED Waste Solutions*].

⁴ *Id.*

⁵ *Id.*

⁶ For a discussion on the difference between lost and wasted food see *Food Loss and Food Waste*, FOOD AND AG. ORG. OF THE UNITED NATIONS, www.fao.org/food-loss-and-food-waste/en/ (last visited May 6, 2019) (“Food loss refers to any food that is lost in the supply chain between the producer and the market. This may be the result of pre-harvest problems Some of the underlying causes of food loss include the inadequacy of infrastructure, markets, price mechanisms or even the lack of legal frameworks.”).

⁷ Zach Conrad, et al., *Relationship between food waste, diet quality, and environmental sustainability*, PLOS ONE (2018), <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0195405>.

⁸ Conrad, *supra* note 7, at 6. (This waste is proportionally attributed to: fruits and vegetables (39%), dairy (17%), meat and mixed meat dishes (14%), and grains and grain mixed dishes (12%), with remaining foods accounting for less than 10% respectively.)

⁹ Bonnie L. Smith, *Heat Up Those Leftovers, Not the Planet: How Combatting Food Waste*

Food and Agriculture Organization estimates that approximately one-third of food produced, manufactured, and/or sold for human consumption is wasted or lost.¹⁰ Consequently, annual worldwide food waste totals approximately 1.3 billion tons.¹¹

This Article focuses on consumer-level waste, the effects of food waste, and potential ways to confront and resolve our wasteful habits. Part I of this Article discusses the environmental, economic, and social impacts of the American food waste problem. Part II discusses the state, local, and federal; legal, regulatory, and policy responses aimed at combating the problem. Specifically, this Article discusses the prevention, recovery, and recycling approaches taken by different government actors and the successes, failures, and hurdles associated with these approaches. Finally, Part III of this Article concludes that a combination of all three approaches is necessary to lessen the impacts of the United States' national food waste problem. Specifically, this Article advocates that the federal government must take measures to (1) enact a federal uniform date labeling law to standardize date labels across the country and reduce consumer confusion; (2) promulgate regulations limiting portion size in restaurants and other consumer-facing establishments; (3) clarify and expand the Emerson Act to ensure that food donations are supplied to needy individuals; and (4) create a federal organic infrastructure fund to aid state governments in designing, developing, and maintaining organic waste recycling facilities.

II. IMPACTS OF THE FOOD WASTE PROBLEM

Enormous amounts of food travel from our plates and refrigerators into our garbage cans every day. However, the journey does not stop there. Approximately 98% of the discarded food in our garbage cans travels to landfills, where it accounts for the largest component of solid waste.¹² In total, approximately 52.4 million tons of food waste end up in landfills every year.¹³ Once the remnants of our dinner plates have made their way to landfills, they contribute to a host of environmental problems and exacerbate the effects of

Can Affect Climate Change, 18 VERMONT J. ENVTL. L. 648, 652 (2017).

¹⁰ *SAVE FOOD: Global Initiative on Food Loss and Waste Reduction*, FOOD AND AG. ORG. OF THE UNITED NATIONS, <http://www.fao.org/save-food/resources/keyfindings/en/> (last visited April 2, 2019).

¹¹ Daniele Fattibene and Margherita Bianchi, *Fighting Against Food Losses and Waste: An EU Agenda*, ISTITUTO AFFARI INTERNAZIONALI, 17/25, 3 (June 2017).

¹² *Keeping Food Out of the Landfill: Policy Ideas for States and Localities*, HARVARD FOOD LAW & POLICY CLINIC 60 (October 2016), https://www.chlpi.org/wp-content/uploads/2013/12/Food-Waste-Toolkit_Oct-2016_smaller.pdf [hereinafter *Harvard Waste Policy Guide*]; 2018 *U.S. Waste Investment Report* REFED 5 (Fall 2018), <https://www.refed.com/downloads/ReFED-2018-US-Food-Waste-Investment-Report.pdf> [hereinafter *2018 Waste Investment Report*]; see also Smith, *supra* note 9, at 648, 650.

¹³ *2018 Waste Investment Report*, *supra* note 12, at 5.

climate change.

A. *Environmental Impacts*

Wasted food results in a tremendous loss of natural resources and commodities including land, water, fertilizers, and pesticides.¹⁴ In the United States, wasted food is grown on approximately 30 million acres of cropland.¹⁵ Cropland used to grow fruit contributes to the greatest percentage of wasted land (60%), followed by vegetables (56%) and sweeteners (30%).¹⁶ Consequently, 4.2 trillion gallons of irrigation water are used annually to treat cropland that is used to grow food that goes uneaten and wasted.¹⁷ The majority of wasted water is used to grow fruits, vegetables, and hay.¹⁸ The fertilizers and pesticides used to treat wasted cropland also represent a significant loss. 780 million pounds of pesticides and 1.8 billion pounds of nitrogen fertilizer are applied annually to grow unused and uneaten food.¹⁹

Moreover, food waste is a large contributor to global greenhouse gas emissions (“GHGs”) which significantly contribute to the heating of our planet.²⁰ Methane is the “number-two producer of human-caused greenhouse gas effects,” right behind carbon dioxide.²¹ Approximately 16% of United States’ methane emissions are attributed to decomposing organic food waste coming from landfills.²² When initially released into the atmosphere, methane is approximately 100 times more potent than carbon dioxide and has 25 times the global warming potential.²³ Fossil fuels, livestock production, and rice paddies are also among the greatest human contributors of methane.²⁴

The production, refrigeration, and transportation of wasted food adds to the carbon footprint and GHG production of wasted food. Transportation accounts for approximately 11% of GHG emissions from the food system,²⁵ while food

¹⁴ See *ReFED Waste Solutions*, *supra* note 3; see also Conrad, *supra* note 7, at 7.

¹⁵ Conrad, *supra* note 7, at 7; see *ReFED Waste Solutions*, *supra* note 3 (showing that this number varies greatly based on different sources, ReFED estimates that 18% of U.S. cropland is consumed by wasted food).

¹⁶ Conrad, *supra* note 7, at 7-8.

¹⁷ *Id.*

¹⁸ *Id.*

¹⁹ *Id.*

²⁰ See Sarah J. Morath, *Regulating Food Waste*, 48 TEXAS ENVTL. L. J. 239, 248 (2018) (identifying food waste as a significant source of GHG); see also David L. Chandler *Explained: Greenhouse Gases*, MIT NEWS OFFICE (Jan. 30, 2017), <http://news.mit.edu/2017/explained-greenhouse-gases-0130> (discussing the role of GHGs in global warming).

²¹ Chandler, *supra* note 20.

²² See Morath, *supra* note 20, at 245.

²³ *Harvard Waste Policy Guide*, *supra* note 12, at 61.

²⁴ Krishna Ramanujan, *Methane’s Impacts on Climate Change May Be Twice Previous Estimates*, NASA (July, 18, 2005), <https://www.nasa.gov/vision/earth/lookingatearth/methane.html>.

²⁵ Baranski, et al., *A Consumer’s Guide to Local Food Systems and Greenhouse Gases*, MICH.

consumption is the second largest GHG impact of households.²⁶ Moreover, the energy expended for refrigeration is a substantial source of GHG emissions resulting from food production.²⁷ Plastic, aluminum, paper, and other food packaging materials also build up in landfills and contribute to the food waste carbon footprint.²⁸

B. Economic Impacts

The growth, production, transport, and disposal of wasted food results in extreme economic loss. A 2018 economic analysis concluded the United States spends \$218 billion, or 1-3% of the annual GDP, on wasted food.²⁹ Consumers face \$144 billion, the highest of these costs, and are followed by consumer-facing businesses at \$57 billion, farms at \$15 billion, and manufacturers at \$2 billion.³⁰ The financial discrepancy between consumer-facing businesses and consumers themselves is likely due to the mark-up of retail food costs paid by customers, as compared to wholesale rates paid by businesses.³¹ In effect, due to these entrepreneurial mark-ups, consumers face the greatest threat of economic loss from food waste.

C. Social Impacts

Forty-two million Americans live in food insecure households, meaning that many American families and individuals do not know where their next meal will come from.³² Globally, almost one billion people are undernourished and another one billion go hungry every day.³³ Ironically, “enough food is wasted every year to feed nearly two billion people a 2,100kcal/day diet.”³⁴ As

STATE UNIV. 3 (June 2012), [https://www.canr.msu.edu/uploads/resources/pdfs/local_food_systems_and_greenhouse_gases_\(e3178\).pdf](https://www.canr.msu.edu/uploads/resources/pdfs/local_food_systems_and_greenhouse_gases_(e3178).pdf) (this number varies, however); see *Executive Summary: Environmental Footprint Literature Review Food Transportation*, OREGON DEP'T OF ENVTL. QUALITY (September 2017), <https://www.oregon.gov/deq/FilterDocs/PEF-FoodTransportation-ExecutiveSummary.pdf> (“[T]ransportation accounts for about 14% of the total energy used by the U.S. food system, about 5% from personal grocery shopping trips and only about 9% from distributing raw and processed food.”).

²⁶ Baranski, et al., *supra* note 24, at 3.

²⁷ *Id.*

²⁸ Dave Hall, *Throwaway culture has spread packing waste worldwide: here's what to do about it*, THE GUARDIAN (Mar. 13, 2017), <https://www.theguardian.com/environment/2017/mar/13/waste-plastic-food-packaging-recycling-throwaway-culture-dave-hall>.

²⁹ *2018 Waste Investment Report*, *supra* note 12, at 5.

³⁰ See *ReFED Waste Solutions*, *supra* note 3.

³¹ *Id.*

³² *U.S. 2030 Food Loss and Waste Reduction Goal*, U.S. ENVTL. PROT. AGENCY, <https://www.epa.gov/sustainable-management-food/united-states-2030-food-loss-and-waste-reduction-goal#goal> (last visited April 2, 2019).

³³ Fattibene, *supra* note 11.

³⁴ Conrad, *supra* note 7, at 2.

discussed *infra*, state, local, and federal governments have sought to remedy this massive divide by providing incentives for consumers and waste generators to donate excess or unused food rather than send it to landfills.³⁵

III. STATE, LOCAL & FEDERAL RESPONSES TO THE FOOD WASTE PROBLEM

Responses to the food waste problem at the state, local, and federal levels can be readily divided into three categories: prevention, recovery, and recycling.³⁶ Prevention responses encompass food labeling policies and legislation aimed at reducing the rate of premature disposal of safe-to-consume food products.³⁷ Recovery laws and policies encompass liability protections and tax incentives that encourage the redistributing of excess food to groups and individuals in need.³⁸ Liability protections generally protect good faith food donors from any potential injury or harm resulting from their donations, while tax incentives provide monetary enticement to encourage waste generators to donate their excess food to charity and non-profit organizations.³⁹ Recycling initiatives encompass organic waste disposal bans and composting requirements.⁴⁰

To date, the vast majority of food waste legislation and policy at the state and local levels has focused on recycling organic food waste, seeking to divert waste from piling up in landfills and releasing environmentally harmful GHGs.⁴¹ The majority of federal responses focus on recovery measures, including enhanced tax deductions for businesses that make charitable contributions to nonprofit food recovery organizations.

A. Prevention

Date labeling is currently regulated at the state level because there are no binding or uniform federal policies or legislation and very few local regulations or ordinances on the issue. Determining expiration dates and proper labeling terminology for any given food or beverage has historically been left up to manufacturers.⁴² As a result, improper and inconsistent date labeling has led to

³⁵ See *infra* Section II.B.

³⁶ *Food Waste Policy Finder*, ReFED, <https://www.refed.com/tools/food-waste-policy-finder/> (last visited April 2, 2019) [hereinafter *Food Waste Policy Finder*], (organizing its online food waste policy and law database into these three categories).

³⁷ *Id.*

³⁸ *Id.*

³⁹ *Id.*

⁴⁰ *Id.*

⁴¹ See *infra* Section II.C.

⁴² Caitlin Dewey, *You're about to see a big change to the sell-by dates on food*, WASH. POST (Feb. 16, 2017), https://www.washingtonpost.com/news/wonk/wp/2017/02/16/a-barely-noticeable-change-to-how-food-is-labeled-could-save-americans-millions/?noredirect=on&utm_term=.aa33c287a87d.

confusion and misinterpretation among consumers and often results in the disposal of safe-to-consume food and beverages.⁴³ Terms such as “best if used by,”⁴⁴ “use by,”⁴⁵ and “freeze by”⁴⁶ are used arbitrarily and lack any clear definitions.⁴⁷ An estimated 398,000 tons of food waste could be prevented annually by modifying and enacting date labeling policy.⁴⁸ As discussed in Part III(A) *infra*, standardized date labeling would help consumers have a better understanding of the actual shelf-life of their food, likely resulting in less “good” food being prematurely discarded.

1. State Action

The greatest labeling confusion lies with the discrepancies and inconsistencies between state laws. Legislation, or lack thereof, setting forth requirements for labeling certain products varies greatly between the 50 states, making these laws extremely difficult for manufacturers, businesses, and consumers to comply with, understand, and interpret.

A prime example used to demonstrate this widespread confusion is state laws surrounding milk labeling. Many states, including New York, Texas, and Wisconsin, do not have requirements for date labeling on dairy or milk products.⁴⁹ Conversely, Montana and Pennsylvania strictly require that milk must have a “sell by” date that is within 12 and 17 days of pasteurization, respectively.⁵⁰ To add to the confusion, some states prohibit the sale of milk after its “sell by” date, while others do not.⁵¹

This confusion spans far beyond milk and dairy labeling. New York, Tennessee, Missouri, Nebraska, South Dakota, Utah, and Idaho do not have *any*

⁴³ *U.S. Grocery Shopper Trends*, 2011 FOOD MKTG. INST. RESEARCH 144 (finding that 91 percent of consumers discard food on its “sell by” date out of concern for safety); *see also* EMILY B. LIEB ET AL., HARV. FOOD LAW AND POL’Y CLINIC AND NAT. RES. DEF. COUNCIL, THE DATING GAME: HOW CONFUSING FOOD DATE LABELS LEAD TO FOOD WASTE IN AMERICA 2 (2013) [hereinafter, THE DATING GAME] <https://www.nrdc.org/sites/default/files/dating-game-report.pdf> (noting that the “sell by” date is designed to tell the store that the product does not have shelf life left); *see also* Dewey, *supra* note 41.

⁴⁴ “Best if used by” generally refers to “the manufacturer’s estimate of a date after which food will no longer be at its highest quality.” THE DATING GAME, *supra* note 42, at 4.

⁴⁵ “Use by” generally refers to “a manufacturer’s estimate of the last date recommended for the use of the product while at peak quality.” *Id.*

⁴⁶ “Freeze by” is generally used as “a guide for consumers to know by when to freeze a product.” However, “[t]his date is often used in conjunction with another date, in cause the consumer chooses not to freeze the product.” *Id.*

⁴⁷ Dewey, *supra* note 41.

⁴⁸ *See* FOOD WASTE POLICY FINDER, *supra* note 35.

⁴⁹ THE DATING GAME, *supra* note 42, at 4.

⁵⁰ *See* MONT. ADMIN. R. 32.8.202 (2013); *see also* 7 PA. CODE § 59a.15 (2013).

⁵¹ *See* GA. COMP. R. & REGS. 40-3-1-.01 (2013) (prohibiting the sale of milk after its sell-by date); FLA. ADMIN CODE ANN. R. 5D-1.007 (2013) (same).

date labeling laws or regulations.⁵² Meanwhile, in Massachusetts, a “sell by” or “best if used by” date label exists on all perishable and semi-perishable foods,⁵³ while New Hampshire requires date labels for prewrapped sandwiches and prohibits their sale after the expiration date.⁵⁴ Labeling for eggs and shellfish are also heavily regulated among the states.⁵⁵ In the absence of date labeling requirements for any particular product, the determination of whether and how to label a product is left up to the discretion of the manufacturer.

In an attempt to combat consumer misinterpretation and uncertainty surrounding date labeling, some states have taken initiative in recent years to encourage and facilitate consistency in this arena. For example, the State of California passed AB 954 requiring their Department of Agriculture “to publish information to encourage food manufacturers, processors, and retailers responsible for the labeling of food products to voluntarily use uniform terms on food product labels to communicate quality dates and safety dates, and would require the department to promote the consistent use of those terms.”⁵⁶ Yet, widespread confusion still exists at the state level, resulting in premature food disposal and contributing to the food waste problem.

2. Local Action

Few municipalities and cities have acted to clarify date labeling requirements and harmonize local ordinances with state law. In 2010, the New York City Department of Health and Mental Hygiene repealed the City’s date labeling requirement for milk, consistent with New York State’s lack of any requirement.⁵⁷ The City’s previous ordinance imposed a shelf life of nine days, much shorter than the typical 14 to 28 day shelf life of pasteurized milk.⁵⁸ Conversely, the City of Baltimore prohibits the sale of any perishable food past its expiration date, while the State of Maryland requires dates labels for milk only.⁵⁹ However, New York City and Baltimore prove to be outliers in food

⁵² See FOOD WASTE POLICY FINDER, *supra* note 35.

⁵³ 105 MASS. CODE REGS. § 500.006(B) (2013).

⁵⁴ N.H. CODE ADMIN. R. AGR. 1412.04 (2013).

⁵⁵ See OKLA. ADMIN. CODE § 310:257-5-15 (2013) (requiring a “sell by” date for shellfish); 13-188 ME. CODE R. § 6.03 (2013) (same); OHIO ADMIN. CODE 901:3-8-03 (2013) (same); *see also* KAN. STAT. ANN. § 2-2509 (2013) (requiring a “sell by” date for eggs); ARIZ. REV. STAT. ANN. § 3-719 (2013) (same).

⁵⁶ CAL. FOOD & AG. § 82001.

⁵⁷ *NYC Votes to Repeal Outdated Code Date Requirements*, INT’L DAIRY FOODS ASS’N (Sept. 24, 2010) <https://www.idfa.org/news-views/headline-news/article/2010/09/24/nyc-votes-to-repeal-outdated-code-date-requirements>.

⁵⁸ *Id.*

⁵⁹ BALTIMORE MD. CODE § 6-505.1 (2009); *see also* Jane Black, *Use by. Sell by. Doesn't help us get by*, WASH. POST (Sept. 17, 2013), https://www.washingtonpost.com/lifestyle/food/use-by-sell-by-doesnt-help-us-get-by/2013/09/16/3fa30b4a-1a64-11e3-8685-5021e0c41964_story.html?utm_term=.024f5b62e432.

waste preventative measures, as the vast majority of United States cities have not exercised available actions contrary to, or in accordance with, current state labeling laws.

3. Federal Action

No federal statute currently exists to bring conformity to date labeling on food and beverages. The lack of action is not for lack of recognition of this national, environmental, and human health problem. In May 2016, Connecticut Senator Richard Blumenthal and Maine Representative Chellie Pingree introduced the Food Date Labeling Act (“Labeling Act”) to the Senate and the House of Representatives with the purpose of “establish[ing] requirements regarding quality dates and safety dates in food labeling.”⁶⁰ If adopted, the Labeling Act would have defined the terms “quality date,”⁶¹ “ready-to-eat product,”⁶² and “safety date”⁶³ as national standards to be utilized in date labeling across the country.⁶⁴ Additionally, the Labeling Act would have eliminated any state prohibitions on the sale or donation of food past its “quality date.”⁶⁵ The bill was referred to the Congressional Committee on Energy and Commerce but has not

⁶⁰ Food Date Labeling Act of 2016, H.R. 5298, 114th Congress (2015-16).

⁶¹ The proposed Labeling Act defines “quality date” as “a date voluntarily printed on food packaging that is intended to communicate to consumers that date after which the quality of the product may begin to deteriorate but may still be acceptable for consumption.” *Id.*

⁶² *Id.* (defining “ready-to-eat product” as:

(A) with respect to a product under the jurisdiction of the Secretary of Agriculture, a product that—

(i) is in a form that is edible without additional preparation to achieve food safety and may receive additional preparation for palatability or aesthetic, epicurean, gastronomic, or culinary purposes; and

(ii) is—

(I) a poultry product, as defined in section 4 of the Poultry Products Inspection Act (21 U.S.C. 453);

(II) a meat food product, as defined in section 1 of the Federal Meat Inspection Act (21 U.S.C. 601); or

(III) an egg product, as defined in section 4 of the Egg Products Inspection Act (21 U.S.C. 1033); and

(B) with respect to a food (as defined in section 201 of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 321)) under the jurisdiction of the Secretary of Health and Human Services—

(i) a food that is normally eaten in its raw state; or

(ii) any other food, including a processed food, for which it is reasonably foreseeable that the food will be eaten without further processing that would significantly minimize biological hazards.).

⁶³ The proposed Labeling Act defines “safety date” as “a date printed on food packaging of a ready-to-eat product, which signifies the end of the estimated period of shelf life under any stated storage conditions, after which the product may pose a health safety risk.” *Id.*

⁶⁴ *Id.*

⁶⁵ *Id.*

made any movement since 2016.⁶⁶

Following the introduction of the Labeling Act, the United States Department of Agriculture's ("USDA") Food Safety and Inspection Service ("FSIS") released agency guidance on date labeling for eggs, meat, and dairy products.⁶⁷ The guidance seeks to "give consumers clear and consistent information when it comes to date labeling on the food they buy" by recommending the universal use of the term "best if used by."⁶⁸ This terminology was chosen based on "research show[ing] that the phrase is easily understood by consumers as an indicator of quality, rather than safety."⁶⁹ Although persuasive and potentially helpful to manufacturers and retailers seeking to amend their labels, this guidance does not provide binding authority to eliminate widespread consumer confusion and state-by-state discrepancies.

B. Recovery

Recovery initiatives to combat the food waste problem include providing certain liability protections and tax incentives to food donors.⁷⁰ The intent of these efforts is to encourage and aid Americans in the process of donating food to non-profit and charitable organizations as an alternative to disposing of excess food in landfills or diverting the waste to recycling facilities.

1. State Action

Many states have passed legislation to provide state liability protections and tax incentives to food donors. These liability laws expand upon the federal Bill Emerson Good Samaritan Donation Act ("Emerson Act"), discussed in Section III(C) *infra*, by providing additional protections to good faith donors. For example, while most state liability protection statutes only protect donors to food recovery organizations, New Hampshire extends liability protections to donations to a "needy individual or individuals or to a bona fide charitable or nonprofit organization."⁷¹ States like Oregon and Nevada extend liability protections regardless of whether the donated food meets federal, state, and local

⁶⁶ See H.R. 5298 – Food Date Labeling Act of 2016, CONGRESS.GOV (last visited May 6, 2019), <https://www.congress.gov/bill/114th-congress/house-bill/5298/text>.

⁶⁷ *USDA Overhauls Food Date Labeling for Meat and Dairy Products Nationwide*, NATURAL RES. DEF. COUNCIL (Dec. 14, 2016), <https://www.nrdc.org/media/2016/161214>; A GUIDE TO FEDERAL FOOD LABELING REQUIREMENTS FOR MEAT, POULTRY, AND EGG PRODUCTS, U.S. DEP'T OF AG. (2007).

⁶⁸ *USDA Revises Guidance on Date Labeling to Reduce Food Waste*, U.S. DEP'T OF AG. (Dec. 14, 2016), <https://www.fsis.usda.gov/wps/portal/fsis/newsroom/news-releases-statements-and-transcripts/news-release-archives-by-year/archive/2016/nr-121416-01>.

⁶⁹ *Id.*

⁷⁰ See FOOD WASTE POLICY FINDER, *supra* note 35.

⁷¹ N.H. REV. STAT. § 508:15 (2016).

quality and labeling requirements.⁷² These statutes allow for any food that is fit for human consumption to be donated, including food that is “not readily marketable due to appearance, freshness, grade, surplus, or other considerations.”⁷³

To further encourage food donations, some states provide tax incentives or credits for donations made by less mainstream food processors and producers, such as local farmers and butchers, who are generally not covered by federal tax incentives. For example, South Carolina provides state tax credits of \$75 per deer carcass to any “licensed meat packer, butcher, or processing plant” that donates unused deer meat to non-profit food recovery organizations.⁷⁴ Similarly, Virginia and New York award tax credits to small-scale farmers who donate or sell food crops—i.e. grains, fruits, nuts, or vegetables—to nonprofit food banks and other emergency food programs.⁷⁵

2. Federal Action

The Emerson Act was passed in 1996 by President Clinton and limits the liability of persons and non-profit organizations that donate or accept food for donation in good faith.⁷⁶ To receive liability protection under the Emerson Act, the donated food must comply with all federal, state, and local quality and labeling requirements.⁷⁷ Moreover, these federal protections only apply to donations made to nonprofit organizations.⁷⁸ Consequently, simple donations to needy individuals are not covered by the Emerson Act.⁷⁹

In an attempt to expand and amend the liability protections afforded by the Emerson Act, four Congressmen introduced the Food Donation Act of 2017.⁸⁰ The purpose of the Food Donation Act was to improve federal oversight of the Emerson Act by delegating enforcement authority to the USDA, expand liability protections to donors who donate directly to individuals, and expand protections regarding mislabeled food, so long as the mislabeling does not raise concerns

⁷² See OR. REV. STAT. § 30.890; see also NEV. REV. STAT. § 41.491 (requires donor to inform recipient of any noncompliance with applicable standards or regulations).

⁷³ See OR. REV. STAT. § 30.890(3).

⁷⁴ S.C. CODE ANN. § 12-6-3750.

⁷⁵ V.A. CODE ANN. § 58.1-439.12:12; N.Y. ASSEM. BILL A1812A (2015-2016).

⁷⁶ See 42 U.S.C. § 1791. There is an exception to injury or death resulting from gross negligence or intentional misconduct. See *id.* § (c)(3).

⁷⁷ 42 U.S.C. § 1791(b)(2). However, this requirement can be overcome if the recipient is aware of the noncompliance, agrees to recondition the product, and knows the applicable standards for reconditioning the product. *Id.* § 1791(e).

⁷⁸ 42 U.S.C. § 1791(c)(1), (2).

⁷⁹ 42 U.S.C. § 1791.

⁸⁰ Food Donation Act of 2017, H.R. 952, 115th Congress (2017-2018). The bill was first introduced by Marcia L. Fudge (D-OH), Dan Newhouse (R-WA), Chellie Pingree (D-ME), and James P. McGovern (D-MA). *Id.* See also FOOD WASTE POLICY FINDER, *supra* note 35.

regarding food safety.⁸¹ If passed, the Food Donation Act would require the USDA to issue guidance with respect to safety labeling standards under the Emerson Act and promote awareness of food donation liability protections.⁸² Upon introduction to the House of Representatives, the bill was referred to the House Committee on Education and Workforce but has yet to be voted on.⁸³

To incentivize food donation, the federal government offers both general and enhanced tax deductions for food donations.⁸⁴ These efforts have proven successful. Enhanced tax deductions were historically available only to C-corporations for charitable contributions, including food donations.⁸⁵ However, in 2005, the federal government temporarily expanded the enhanced tax deduction to all businesses in the wake of Hurricane Katrina, through the passage of the Katrina Emergency Tax Relief Act (“KETRA”).⁸⁶ In the year following the enactment of KETRA, food donations rose by 137%.⁸⁷ As of December 2015, the enhanced tax deductions were permanently expanded to apply to all businesses.⁸⁸ In order to qualify for an enhanced tax deduction for food donations, a business must meet the following requirements:

The donor organization must donate food to qualified domestic 501(c)(3) nonprofit organizations that use the food solely for the care of the ill, the needy or infants;

The recipient organization must use the donated food in a manner consistent with the purpose constituting that organization’s exempt 501(c)(3) status; and

The recipient organization may not use or transfer the food “in exchange for money, other property or services.”⁸⁹

Thus, these federal deductions provide necessary incentives to encourage

⁸¹ *Food Donation Act of 2017*, REFED.COM, <https://www.refed.com/tools/food-waste-policy-finder/federal-policy/food-donation-act-2017> (last visited April 7, 2019).

⁸² *Food Donation Act of 2017*, *supra* note 80, at 5.

⁸³ *Id.*

⁸⁴ See I.R.C. § 170 (Year); see also *Federal Enhanced Tax Deduction for Food Donation: A Legal Guide*, HARVARD FOOD LAW & POLICY CLINIC (Dec. 2015) <https://www.chlpi.org/wp-content/uploads/2013/12/Food-Donation-Fed-Tax-Guide-for-Pub-2.pdf>.

⁸⁵ See Tax Reform Act of 1976, Pub. L. No. 94-455, 90 Stat. 1520 (amending I.R.C. (1954)).

⁸⁶ Katrina Emergency Tax Relief Act of 2005, Pub. L. No. 109-73, 119 Stat. 2016.

⁸⁷ See HARVARD WASTE POLICY GUIDE, *supra* note 12 (citing Jim Larson, *Statement for the Record House Ways and Means Subcommittee on Oversight J. Hearing on Food Banks and Front-line Charities: Unprecedented Demand and Unmet Need: Joint Hearing Before the Subcomm. on Oversight & the Subcomm. on Income Security & Family Support of the H. Comm. on Ways & Means*, 111th Cong. (2009) (statement of Jim Larson, Program Development Director, Food Donation Connection)); see also Press Release, Congressman Sandy Levin, *Levin and Gerlach Introduce Bipartisan Bill to Encourage Food Donations* (Aug. 1, 2013), <http://levin.house.gov/press-release/levin-and-gerlach-introduce-bipartisan-bill-encourage-food-donations>; *Feeding America Urges Swift Vote On Expired Tax Provisions*, FEEDING AM. (June 8, 2012), <http://www.feedingamerica.org/hunger-in-america/news-and-updates/press-room/press-releases/feeding-america-urges-swift-vote-on-expired-tax-provisions.html>.

⁸⁸ See I.R.C. § 170(e)(1).

⁸⁹ 26 U.S.C. § 170(e)(3)(A).

businesses to donate their excess food. However, the Emerson Act does not cover food donated directly to needy individuals, excluding a valuable avenue for the distribution of unused food. Moreover, the logistics associated with transporting and storing donatable food are often too costly for small-scale businesses.⁹⁰

C. Recycling

The vast majority of food waste law and policy at the state and local levels focuses on organic waste recycling initiatives. Although successful in diverting food waste from landfills, such initiatives take a reactive approach, rather than focusing on the source of the waste to combat the problem. These recycling measures are necessary to reduce GHG emissions from the country's landfills. However, these measures should be utilized in conjunction with more proactive prevention and recovery policies to lessen the overall environmental, economic, and social impacts of the food waste problem.

1. State Action

Five states—California, Vermont, Connecticut, Massachusetts, and Rhode Island—have enacted legislation and/or developed regulatory programs that focus on decreasing food waste in the physical environment. These state laws are largely focused on diverting industrial, commercial, and residential organic waste from landfills into recycling centers with the capacity to adequately dispose of such waste materials.⁹¹ As outlined below, the success and scope of these laws depends largely on applicability and covered waste generators' access to state-permitted recycling facilities.

a. California

California has proven to be a leading state in combatting the food waste problem via organic waste recycling programs. This movement began with the California Integrated Waste Management Act of 1989,⁹² which required

⁹⁰ Geoff Williams, *Starbucks Finally Starts to Donate All of its Unsold Food. But Donating Isn't as Easy as it Seems*, FORBES, Apr. 28, 2016, <https://www.forbes.com/sites/geoffwilliams/2016/04/28/starbucks-finally-starts-to-donate-all-of-its-unsold-food-but-donating-isnt-as-easy-as-it-seems/#3821b1593b83>.

⁹¹ Maryland, New Jersey, and New York are in the process of considering similar food waste laws and regulations. See Jon Frandsen, *Here's How States Are Working to Curb Food Waste*, PBS NEWS HOUR (May 16, 2017), <https://www.pbs.org/newshour/nation/heres-states-working-curb-food-waste>.

⁹² In its statement of finding, the California legislature declared the following: "In 1988, Californians disposed of 38 million tons of solid waste, an amount that is expected to grow if existing solid waste policies are continued. This amounts to more than 1,500 pounds of waste per person living in the state, more than any other state in the country and over twice the per-capita rate

businesses that generate more than four cubic yards of organic waste and multi-family residential dwellings of five units to arrange for recycling services.⁹³ The Act, as amended, also required each county to prepare a county-wide integrated waste management plan and to submit it to the state's Department of Resources Recycling and Recovery.⁹⁴ California food waste laws became more stringent in October 2014 when Governor Jerry Brown signed AB 1826 into law.⁹⁵ AB 1826 set forth an implementation schedule for business to comply with certain organic⁹⁶ and solid waste recycling procedures.⁹⁷ As of January 2017, the law applies to businesses that generate more than four cubic yards of organic waste per week.⁹⁸ The program mandates that applicable businesses: separate organic waste from other waste materials; recycle organic waste onsite or self-haul organic waste for recycling; and subscribe to an organic waste recycling service, which may in and of itself include mixed waste processing that specifically recycles organic waste.⁹⁹

b. Vermont

The State of Vermont serves as another example of a state taking the food waste problem into their own hands. In 2012, the Vermont Legislature passed the Universal Recycling Law ("Act 1948") which banned the disposal of three major types of common waste materials over a period of a year, slowly requiring all Vermonters to separate their recyclable materials from household trash.¹⁰⁰ Disposal of "blue bin" recyclables was banned as of July 2015.¹⁰¹ To effectuate this "blue bin" ban, all public buildings were required to provide recycling containers alongside all trash receptacles in public places by the 2015 deadline.¹⁰² Disposal of leaf and yard debris and clean wood was banned in July

of most other industrialized countries. Over 90 percent of California's solid waste currently is disposed of in landfills, some of which pose a threat to groundwater, air quality, and public health." CAL. PUB. RES. CODE § 40000 (2017).

⁹³ CAL. PUB. RES. CODE § 42649.81(a)(2) (2017).

⁹⁴ CAL. PUB. RES. CODE §§ 40508, 41750.

⁹⁵ *Mandatory Commercial Organics Recycling*, CALRECYCLE, <https://www.calrecycle.ca.gov/recycle/commercial/organics>. (last visited Aug. 5, 2019).

⁹⁶ The statute defines "organic waste" as "food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste." CAL. PUB. RES. CODE § 42649.8(c).

⁹⁷ CAL. PUB. RES. CODE § 42649.81.

⁹⁸ *Frequently Asked Questions*, CALRECYCLE, <https://www.calrecycle.ca.gov/recycle/commercial/organics/faq> (last visited April 7, 2019).

⁹⁹ CAL. PUB. RES. CODE § 42649.81.

¹⁰⁰ *Vermont's Universal Recycling Law*, DEP'T OF ENVTL. CONSERVATION, <https://dec.vermont.gov/waste-management/solid/universal-recycling> (last visited April 7, 2019).

¹⁰¹ *Id.*

¹⁰² *Id.*

2016.¹⁰³ The ban on disposal of food scraps, organics, and compostable kitchen wastes is set to go into effect at the beginning of July 2020.¹⁰⁴ Act 1948 also created an implementation schedule for food scrap generators to divert organic material to certified recycling facilities.¹⁰⁵ Eventually, all food scraps will be effectively banned from Vermont landfills in July of 2020.¹⁰⁶ In its 2016 Status Report, the Vermont Department of Environmental Conservation found that between 2014 and 2015 “trash disposal decreased 5% statewide . . . [and] recycling and composting increased by 11,983 tons.”¹⁰⁷ Moreover, statewide food donation increased by 40% between the years 2015 and 2016.¹⁰⁸ Vermont’s recycling legislation ultimately places the responsibility of waste diversion directly on Vermont citizens and is arguably one of the most comprehensive and successful programs for reducing food waste among the states.

c. Connecticut

In 2011, the State of Connecticut passed the Commercial Organics Recycling Law, as revised in 2013.¹⁰⁹ This state law requires any commercial food wholesale or distributor, industrial food manufacturer or processor, supermarket, resort, or conference center that generates 104 or more tons¹¹⁰ of source-separated organic material¹¹¹ and is located within 20 miles of a permitted recycling facility, to properly recycle those materials.¹¹² The facilities use anaerobic digestion¹¹³ and aerated windrow processes to compost organic matter

¹⁰³ *Id.*

¹⁰⁴ *Id.*

¹⁰⁵ See VERMONT AGENCY OF NATURAL RESOURCES, UNIVERSAL RECYCLING LAW TIMELINE (2019).

¹⁰⁶ Beginning in July 2014, all generators of 104 tons/year were required to divert material to any certified facility within 20 miles. Beginning in July 2015, all generators of 52 tons/year were required to divert material to any certified facility within 20 miles. Beginning in July 2016, all generators of 26 tons/year were required to divert material to any certified facility within 20 miles. Beginning in July 2017, all generators of 18 tons/year were required to divert material to any certified facility within 20 miles. *Id.*

¹⁰⁷ VERMONT’S UNIVERSAL RECYCLING LAW, STATUS REPORT, VT DEP’T OF ENVTL. CONS. (Dec. 2016).

¹⁰⁸ *Id.*

¹⁰⁹ CONN. GEN. STAT. ANN. § 22a-226e (2013).

¹¹⁰ This threshold will decrease to 52 tons in 2020. *Id.*

¹¹¹ The statutory definition of “Source-Separated Organic Material” means organic material, including, but not limited to, food scraps, food processing residue and soiled or unrecyclable paper that has been separated at the point or source of generation from nonorganic material.” CONN. GEN. STAT. ANN. § 22a-207(30).

¹¹² *Id.*

¹¹³ Aerated or turned windrow composting involves “forming organic waste into rows of long piles called “windrows” and aerating them periodically by either manually or mechanically turning the piles. The ideal pile height is between four and eight feet with a width of 14 to 16 feet. This size pile is large enough to generate enough heat and maintain temperatures. It is small enough to allow oxygen flow to the windrow’s core.” *Types of Composting and Understanding the Process*, U.S.

and biodegradable waste.¹¹⁴ Connecticut currently permits six operating recycling centers that are authorized by the state's Department of Environmental Protection to accept recyclable material from commercial and industrial regulated entities.¹¹⁵ Consequently, although the progressive goal of Connecticut's organic recycling law is a model for other states to follow, much of central and eastern Connecticut remains exempt from the law due to the lack of recycling centers in those areas.¹¹⁶

d. Massachusetts

The Massachusetts Department of Environmental Protection ("MassDEP") passed a Commercial Food Material Disposal Ban in 2014, in furtherance of their initiative to divert at least 35% of all food waste from disposal statewide by 2020.¹¹⁷ This regulation banned the disposal of organic waste by any entity that disposes one or more tons of organic materials per week.¹¹⁸ In contrast with Connecticut's law, Massachusetts' food waste legislation does not contain any exemptions related to the waste disposer's distance to a recycling facility. This is likely due to the fact that there are currently 53 sites accepting diverted food waste in Massachusetts.¹¹⁹ These facilities are scattered throughout the state for easy access and transport from food waste generators.¹²⁰ Thus, this makes the law more enforceable and comprehensive than Connecticut's law, imposing the heightened duty of organic waste recycling on significantly more waste generators.

e. Rhode Island

Rhode Island's Food Waste Ban (the "Ban") was passed by the state legislature in June 2014 as an amendment to the "Refuse Disposal" laws.¹²¹ The Ban was put into effect in January 2016,¹²² with the purpose of reducing the

ENVTL. PROT. AGENCY, <https://www.epa.gov/sustainable-management-food/types-composting-and-understanding-process> (last visited April 7, 2019).

¹¹⁴ *Food Waste Composting Facilities*, CONN. DEP'T OF ENERGY AND ENVTL. PROTECTION, https://www.ct.gov/deep/cwp/view.asp?a=2718&q=325376&deepNav_GID=1645 (last visited Oct. 16, 2018).

¹¹⁵ *Id.* Permitted recycling facilities are currently located in the following cities/towns: Bridgeport, CT; Ellington, CT; New Milford, CT; North Haven, CT; and Southington, CT (2). A small-scale composting facility is located in Danbury, CT. *Id.*

¹¹⁶ HARVARD WASTE POLICY GUIDE, *supra* note 12.

¹¹⁷ *Commercial Food Material Disposal Ban*, MASS.GOV, <https://www.mass.gov/guides/commercial-food-material-disposal-ban>.

¹¹⁸ 310 MASS. CODE REGS. 19.017.

¹¹⁹ *Site Accepting Diverted Food Material*, MASSDEP (2018) <https://www.mass.gov/files/documents/2018/11/20/fdcomlst.pdf>.

¹²⁰ *Id.*

¹²¹ R.I. GEN. LAWS ANN. § 23-18.9-17 (2014).

¹²² *Id.*

amount of waste being sent to the state's Central Landfill.¹²³ At the time the Ban was effectuated, Rhode Island's Central Landfill was "on track to be filled by 2038."¹²⁴ The Ban applies to any commercial food wholesaler or distributor, industrial food manufacturer or processor, supermarket, resort or conference center, banquet hall, restaurant, religious institution, military installation, prison, corporation, hospital or other medical care institution, casino, and covered educational facility¹²⁵ that disposes of 104 tons of organic waste material per year.¹²⁶ In 2018, the waste threshold will decrease to 52 tons per year for covered educational facilities.¹²⁷ The Rhode Island Ban is very similar in scope to Connecticut's organic waste recycling law, and provides a roadmap for other states to follow that wish to begin the process of implementing organic waste recycling at the state level.

2. Local Action

Many U.S. cities have passed food waste ordinances with the hope of reducing food waste within the city limits. Among the most notable of these city-wide initiatives are: Austin, Texas; New York, New York; and Seattle, Washington.¹²⁸

Austin, Texas passed the Universal Recycling Ordinance in accordance with the city's goal to achieve zero waste by 2040.¹²⁹ The Ordinance set three main compliance dates for commercial food facilities: by October 1, 2016, food enterprise facilities larger than 15,000 square feet were required to have an organics diversion program in place; by October 1, 2017, the same program was required of food businesses of 5,000 square feet or larger; and by October 1,

¹²³ Press Release, State of R.I. Gen. Assembly, Bill to Divert Organic Waste from Landfill Becomes Law (July 3, 2014).

¹²⁴ *Id.*

¹²⁵ The statute defines "covered educational institution" as "a higher educational or research institution." R.I. GEN. LAWS ANN. § 23-18.9-7(20). A "covered educational facility" is defined as "a building or group of two (2) or more interconnected buildings owned or used by a covered educational institution at which organic waste materials are generated." R.I. GEN. LAWS ANN. § 23-18.9-7(21).

¹²⁶ R.I. GEN. LAWS ANN. § 23-18.9-17(a)(1)(West 2015), R.I. GEN. LAWS ANN. § 23-18.9-7(15) (West 2015). The statute defines "organic waste material" as "the organic material portion of the solid waste stream, including, but not limited to, food scraps, food processing residue, and soiled or unrecyclable paper that has been separated from nonorganic material." R.I. GEN. LAWS ANN. § 23-18.9-7(15) (West 2015).

¹²⁷ R.I. GEN. LAWS ANN. § 23-18.9-17(b)(1).

¹²⁸ San Francisco, California and Portland, Oregon have also passed similar initiatives on food waste disposal or requirements for disposers to properly separate food waste from household trash. See *Striving for Zero Waste*, SFENVIRONMENT, <https://sfenvironment.org/striving-for-zero-waste> (last visited Mar. 27, 2019); *Portland Composts!* CITY OF PORTLAND, OR, <https://www.portlandoregon.gov/bps/article/402972> (last visited Mar. 27, 2019).

¹²⁹ *Zero Waste by 2040*, Austin Resource Recovery, <https://austintexas.gov/zerowaste> (Last visited March 31, 2019). See AUSTIN, TEX. CITY CODE § 15-6-80 (2019).

2018, all food businesses were affected.¹³⁰ The Ordinance also required all landlords to provide their tenants and employees with recycling facilities by October 2017.¹³¹

Similarly, in July 2016, New York City's Commercial Organics Law went into effect.¹³² The law applies to the following institutions: all food service establishments in hotels with 150 or more rooms; all food service vendors in arenas and stadiums with seating capacity of at least 15,000 people; food manufacturers with a floor area of at least 25,000 square feet; and food wholesalers with a floor area of at least 20,000 square feet.¹³³

The City of Seattle also recently passed an ordinance to lessen the city's food waste impacts.¹³⁴ The ordinance prohibits any and all food waste from being dumped by residential and commercial consumers.¹³⁵ For businesses, a fee may apply if more than 10% of the volume of their garbage container contains food waste, food-soiled paper, or other items that could have been composted or recycled.¹³⁶ Businesses must either compost their organic waste on site, self-haul, or pay for a food waste service.¹³⁷ Exemptions are made for commercial establishments that either do not have adequate storage space for recyclable materials, as determined by the Director of Seattle Public Utilities, and for establishments that make their garbage containers available to members of the general public.¹³⁸

3. Federal Action

In 2015, the United States Environmental Protection Agency ("EPA") and the USDA announced the federal goal of reducing food waste by 50% by 2030, known as the 2030 Food Loss and Waste Reduction Goal ("2030 FLW Reduction Goal").¹³⁹ This goal aligns with Target 12.3 of the United Nations Sustainable Development Goals, which seeks to "halve per capita global food

¹³⁰ AUSTIN, TEX. CITY CODE §15-6-91(E).

¹³¹ *Id.* at § 15-6-91(D)(4).

¹³² N.Y., N.Y. ADMIN CODE § 16-306.1 (2013).

¹³³ *Id.*

¹³⁴ Seattle Municipal Code sections 21.36.082 applies to commercial establishments and 21.36.083 applies to residential recycling. *See* SEATTLE, WASH., MUN. CODE § 21.36.082, 21.36.083 (2019).

¹³⁵ Seattle Municipal Code sections 21.36.082 applies to commercial establishments and 21.36.083 applies to residential recycling. *See* SEATTLE, WASH., MUN. CODE § 21.36.082, 21.36.083 (2019).

¹³⁶ *See Id.* at § 21.36.082(c).

¹³⁷ *Id.* at § 21.36.082(b).

¹³⁸ *Id.* at § 21.36.082(c).

¹³⁹ *United States 2030 Food Loss and Waste Reduction Goal*, U.S. ENVTL. PROT. AGENCY, <https://www.epa.gov/sustainable-management-food/united-states-2030-food-loss-and-waste-reduction-goal#goal>. (last visited Mar. 29, 2019).

waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses” by 2030.¹⁴⁰ In collaboration with the USDA, the states, and tribal partners, EPA plans to effectuate the purpose of the 2030 FLW Reduction Goal “by working with leaders in the food system (e.g. private, government, nonprofit, academia, faith) to promote action and bring more successful interventions and tools to advance the sustainable management of food.”¹⁴¹

As part of the 2030 FLW Reduction Goal, EPA developed a Food Recovery Hierarchy to outline the preferred methods of reducing food waste.¹⁴² From most preferred to least preferred methods, the hierarchy sets forth the following: Source Reduction & Reuse; Feed Hungry People; Feed Animals; Industrial Uses; Composting; and Landfill/Incineration.¹⁴³ Through the hierarchy, EPA prioritizes preventative measures—i.e., reducing surplus food generation—and prefers post-production measures, such as composting, converting food waste to energy, and using food scraps for animal feed, less.¹⁴⁴ Recovery measures, such as food donations, fall in the middle of the preference scale. The hierarchy seeks to be proactive in reducing national food waste, aiming to combat the problem at its source by eliminating the production of excess food products.

Following the implementation of the 2030 FLW Reduction Goal, the Food Recovery Act was introduced to the House of Representatives by Congresswoman Chellie Pingree.¹⁴⁵ The Act is a comprehensive piece of legislation, incorporating prevention, recovery, and recycling food recovery initiatives. The Act aims to develop uniform date labeling language, strengthen the liability protections of the Emerson Act, combat food waste in schools, create an Office of Food Recovery, fund large-scale state composting facilities, and require the USDA to establish standards for calculating the amount of wasted food that occurs at the farm level.¹⁴⁶ The Food Recovery Act was introduced to the Senate in 2017 and referred to the Subcommittee on Health.¹⁴⁷ It has not made any significant movement in the Senate since that time.¹⁴⁸

Federal proposals and active responses to the food waste problem have started

¹⁴⁰ Target 12.3 of the UN Sustainable Development Goals states as follows: “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.” See *Sustainable Development Goals Knowledge Platform*, UNITED NATIONS, <https://sustainabledevelopment.un.org/sdg12>.

¹⁴¹ *Id.*

¹⁴² See *2030 Food Loss and Waste Reduction Goal*, *supra* note 133.

¹⁴³ *Id.*

¹⁴⁴ *Id.*

¹⁴⁵ Food Recovery Act of 2017, H.R. 3444, 115th Cong. (2017-2018).

¹⁴⁶ See *Id.* at §§ 201(A), 305(D), 221(a), 7011(a), 104(b)(2), & 104(c)(1-2).

¹⁴⁷ *Id.* See *Food Recovery Act Bill Overview*.

¹⁴⁸ See *H.R. 3444 – Food Recovery Act of 2017*, CONGRESS.GOV (last visited May 8, 2019), <https://www.congress.gov/bill/115th-congress/house-bill/3444>.

to focus on prevention and recovery measures, recognizing the importance of being proactive in combatting waste at its source. However, current responses are insufficient to reduce annual food waste generation and additional measures must be taken in order to significantly reduce food waste and its current contribution to GHG emissions, climate change, social inequality, and economic loss.

IV. SOLUTIONS TO THE FOOD WASTE PROBLEM

As discussed in detail throughout this Article, there are a variety of methods that can be utilized to combat the food waste problem at the consumer level. Current state and local approaches are reactionary and focused primarily on recycling initiatives. Accordingly, more must be done at the federal level to prevent and recover lost food and aid state and local governments in strengthening their recycling initiatives.

This Article proposes to combat the food waste problem by: (1) enacting a federal uniform date labeling law to standardize date labels across the country and reduce consumer confusion; (2) promulgating regulations limiting portion size in restaurants and other consumer-facing establishments; (3) clarifying and expanding the Emerson Act to apply to food donations to needy individuals; and (4) creating a federal organic infrastructure fund to aid state governments in designing, developing, and maintaining organic waste recycling facilities.

A. Enact a Federal Uniform Date Labeling Law

As emphasized in Section II.A *supra*, significant food waste arises from the premature disposal of edible and healthy foods due to consumer confusion and misinterpretation of date labels. Most confusion lies in the use of arbitrary and inconsistent terminology. Through the enactment of a Uniform Date Labeling Law, Congress could remedy this issue through standardization of date labels and drastically decrease the volume of American food waste.

Congressional authority to enact a Uniform Date Labeling Law comes from Article 1, Section 8, Clause 3 of the U.S. Constitution (the “Commerce Clause”).¹⁴⁹ The Commerce Clause provides that Congress shall have the power “to regulate Commerce with foreign Nations, and among the several States, and with the Indian Tribes.”¹⁵⁰ The Commerce Clause has been broadly interpreted to give Congress the power to regulate any goods, products, or services that move through interstate commerce.¹⁵¹ This includes the regulation of

¹⁴⁹ U.S. CONST. art. I, § 8, cl. 3.

¹⁵⁰ *Id.*

¹⁵¹ *See* *Gibbons v. Ogden*, 22 U.S. 1 (1824); *Wickard v. Filburn*, 317 U.S. 111 (1942).

agricultural, food, and beverage products.¹⁵² Accordingly, Congress has the power to enact a federal law pertaining to date labeling requirements on foods and beverages, and it should exercise its power to do so.

To provide guidance on this issue, many food law scholars and organizations set forth their recommendations for a uniform date labeling system. For example, the Natural Resources Defense Council (“NRDC”) and the Harvard Food Law & Policy Clinic recommend that the United States’ food date labeling system be standardized and clarified by:

[E]stablish[ing] standard, clear language for both quality-based and safety-based date labels; include[ing] “freeze by dates and freezing information where applicable; remov[ing] or replac[ing] quality-based dates on non-perishable, shelf-stable products; ensur[ing] date labels are clearly and predictably located on packages; and employ[ing] more transparent methods for selecting dates.¹⁵³

These guidelines provide a basic approach that the federal government should take to standardize date labeling. First, as discussed *supra*, “best by” dates should be prioritized over expiration dates for perishable items. “Best by” dates have proven to be best understood by consumers as indications of quality, rather than safety, so consumers are less likely to discard items that have reached their “best by” date and thus, are still safe to consume. Additionally, the law should follow the proposed Food Labeling Law by including the terms “quality date” and “safety date” to further clarify to consumers the longevity of their purchased products. Secondly, and as suggested by NRDC, the law should incorporate requirements for “freeze by” dates on items that can be readily frozen and saved for later consumption. These dates will encourage consumers to freeze items upon purchase, rather than discard them if they not eaten within a few days. Finally, and arguably most importantly, the legislature needs to provide clear, concise, and transparent definitions for the uniform date labeling terminology that is ultimately selected. This will ensure that consumers can easily educate themselves on the shelf-life and safety of their purchases and avoid premature disposal of safe and edible products.

B. Reduce Portion Sizes in Consumer-Facing Businesses

American portion sizes have grown exponentially in recent decades.¹⁵⁴ This is

¹⁵² See *Wickard*, 317 U.S. at 111 (using the Commerce Clause to regulate wheat production); see also *Hipolite Egg Co. v. United States*, 220 U.S. 45 (1911) (regulating egg sales); see also *Dean Milk Co. v. City of Madison*, 340 U.S. 349 (1951) (regulating interstate milk sales).

¹⁵³ See *THE DATING GAME*, *supra* note 42 at 3-4.

¹⁵⁴ See *Larger Portion Sizes Contribute to the U.S. Obesity Problem*, NAT’L HEART, LUNG, AND BLOOD INST. (last visited May 8, 2019), <https://www.nhlbi.nih.gov/health/educational/wecan/news->

largely due to increasing meal sizes in restaurants, oversized tableware and dishware, and misrepresentations about proper serving sizes.¹⁵⁵ Between 1960 and 2007, the surface area of the average dinner plate expanded by 36%.¹⁵⁶ Today, portion sizes are often two to eight times larger than USDA or FDA standard serving sizes.¹⁵⁷ In response to high rates of obesity and unhealthy eating habits, many states, cities, and the federal government developed and passed laws and guidance requiring restaurants to identify and provide certain nutritional information of menu items to consumers.¹⁵⁸ Similar measures should be taken at all levels of government to reduce portion size in consumer-facing businesses and restaurants, some of which have the capacity to produce between 25,000 and 75,000 pounds of food waste per year.¹⁵⁹

On December 1, 2014, the federal Food and Drug Administration published a final rule, *Food Labeling; Nutrition Labeling of Standard Menu Items in Restaurants and Similar Establishments*, to implement the nutrition labeling provisions of the Patient Protection and Affordable Care Act of 2010 (“Affordable Care Act” or “ACA”).¹⁶⁰ The ACA amended the federal Food Drug & Cosmetic Act (“FDCA”) to

require restaurants and similar retail food establishments that are part of a chain with 20 or more locations doing business under the same name and offering for sale substantially the same menu items to provide calorie and other nutritional information for standard menu items, including food on display and self-service food.¹⁶¹

The goal of this directive, and FDA’s subsequent regulations, is to “provide accurate, clear, and consistent nutrition information, including calorie content of foods . . . [that] will make such nutritional information available to consumers in

events/mattel.htm.

¹⁵⁵ Bee Wilson, et al., *Our gigantic problem with portions: why are we all eating too much*, THE GUARDIAN (Apr. 25, 2016), <https://www.theguardian.com/lifeandstyle/2016/apr/25/problem-portions-eating-too-much-food-control-cutting-down>.

¹⁵⁶ Dana Gunders, *Portion-mania: problematic for waists and waste. But could McDonald’s be on to something?* NAT. RES. DEF. COUNCIL (Oct. 11, 2012) <https://www.nrdc.org/experts/dana-gunders/portion-mania-problematic-waists-and-waste-could-mcdonalds-be-something>.

¹⁵⁷ *Id.*

¹⁵⁸ See U.S. DEP’T OF HEALTH AND HUMAN SVCS., MENU LABELING: SUPPLEMENTAL GUIDANCE FOR INDUSTRY (May 2018); see also N.Y.C. DEP’T OF HEALTH & MENTAL HYGIENE, NYC’S CALORIE LABELING RULE FOR CHAIN RETAIL FOOD ESTABLISHMENTS, WHAT YOU NEED TO KNOW (April 2018).

¹⁵⁹ Courtney Verrill, *American restaurants are wasting an incredible amount of food—here’s the proof*, BUS. INSIDER (May 17, 2016), <https://www.businessinsider.com/solving-food-waste-in-americas-restaurants-2016-5>.

¹⁶⁰ Food Labeling; Nutrition Labeling of Standard Menu Items in Restaurants and Similar Retail Food Establishments, 79 Fed. Reg. 71155 (Dec. 1, 2014).

¹⁶¹ *Id.*

a direct and accessible manner to enable consumers to make informed and healthy dietary choices.”¹⁶² Through the ACA, Congress authorized the FDA to promulgate menu labeling regulations to protect public health and consumer transparency. Yet, the ACA does not explicitly or implicitly provide the FDA with authority to adopt regulations requiring consumer-facing businesses to limit portion sizes.

Because Congress has not delegated the statutory authority to FDA to limit portion sizes, the ACA must be amended in order to specifically permit the FDA to regulate portion sizes. However, the FDA can take immediate action under the ACA as currently written by requiring “restaurants and similar retail food establishments” to include portion size information on their menus and menu boards as part of the requisite “nutritional information.” The ACA does not provide a definition of “nutritional information”, leaving it up to the FDA to develop a reasonable interpretation consistent with legislative intent. If the FDA’s interpretation is reasonable, it would arguably be upheld by a reviewing court affording *Chevron* deference to the agency. One reasonable interpretation the FDA may develop is for the definition of “nutritional information” to include portion size and adopt subsequent regulations requiring restaurants to post portion sizes on their menus along with other nutritional information. To avoid the ossification and litigation involved with agency interpretations, Congress should aim to amend the ACA to explicitly authorize the FDA to regulate restaurants in this manner. Expanding the ACA to require the FDA to promulgate regulations limiting portion size would have the dual effect of reducing food waste and promoting safe eating habits by reducing consumers overall food intake.

C. *Expand Liability Protections Afforded Under the Emerson Act*

Food donation provides a means to minimize the environmental impacts of food waste and simultaneously reduce widespread food insecurity.¹⁶³ Yet, since the Emerson Act was passed in 1996, food waste has actually increased in the United States.¹⁶⁴ This is largely due to confusion regarding the applicability of federal or state liability protections and the lack of protection over individual food donations.¹⁶⁵

While all 50 states have Good Samaritan food donation laws, businesses often do not know which law applies to them, causing them to avoid donation

¹⁶² *Id.*

¹⁶³ LIABILITY PROTECTION FOR FOOD DONATION, PUBLIC HEALTH LAW CENTER, WILLIAM MITCHELL COLLEGE OF LAW, at 1 (March 2013).

¹⁶⁴ Smith, *supra* note 9, at 657.

¹⁶⁵ *Id.*

altogether.¹⁶⁶ Approximately 80% of businesses in a national survey “responded that threat of liability for food related injuries was the greatest deterrent for donating [their] excess food.”¹⁶⁷ Moreover, as discussed previously, the Emerson Act does not apply to food donations made to individuals, eliminating an entire sector of potential redistribution of food waste. The Emerson Act should be amended to apply to donations made to individuals, and the USDA should be directed to publish comprehensive guidance to educate potential food donors on the liability protections afforded under the Emerson Act.

D. Create a Federal Organic Infrastructure Fund

To encourage organic waste recycling and reduce the harmful environmental impacts of landfill buildup, the federal government should create an Organic Infrastructure Fund to aid state governments in designing, developing, and maintaining organic waste recycling facilities. In doing so, the federal government would help states attain conservation goals, reduce overall GHG emissions, and preserve the natural environment for future generations.

The Organic Infrastructure Fund should be maintained by EPA and modeled after a similar initiative in New South Wales, Australia. The New South Wales Environmental Protection Authority (“NSW EPA”) developed an Organic Infrastructure Fund as part of their Waste Less, Recycle More initiative which seeks to “modernize the waste sector in NSW, deliver waste and recycling services to the community and ensure a clean environment.”¹⁶⁸ Among other directives, the initiative provides \$57 million over the course of nine years to fund organic recycling infrastructure and equipment and reduce the volume of food waste being sent to NSW landfills.¹⁶⁹ Local businesses, government institutions, and nonprofit organizations are all eligible to apply for the grants which differ in amount depending on the type of project.¹⁷⁰ The grants can also cover food donation infrastructure, including refrigerators, freezers, vans, and storage equipment to facilitate the collection and redistribution of donatable food.¹⁷¹

Developing an Organic Infrastructure Fund modeled after that of NSW would encourage the remaining states to develop organic recycling programs like those

¹⁶⁶ David L. Morenoff, *Lost Food and Liability: The Good Samaritan Food Donation Law Story*, 57 FOOD & DRUG L.J. 107 (2002).

¹⁶⁷ LIABILITY PROTECTION FOR FOOD DONATION, *supra* note 157.

¹⁶⁸ *Waste Less, Recycle More*, NSW ENVTL. PROT. AGENCY, <https://www.epa.nsw.gov.au/your-environment/recycling-and-reuse/waste-less-recycle-more>. (last visited Mar. 29, 2019).

¹⁶⁹ *Organics Infrastructure (Large and Small) Program – Program Snapshot*, NSW ENVTL. PROT. AGENCY, <https://www.epa.nsw.gov.au/working-together/grants/organics-infrastructure-fund/organic-large-small> (last visited May 8, 2019).

¹⁷⁰ *Id.*

¹⁷¹ *Id.*

2019]

Why We Dump (Not So) Spoiled Milk

215

in California, Vermont, Massachusetts, Connecticut, and Rhode Island. Such expanded recycling initiatives would aid in diverting food waste from piling up in landfills and promote organic recycling nationwide.

V. CONCLUSION

The enormous volume of food waste generated in the United States is contributing to global climate change. To combat this problem, all levels of government have acted to prevent food waste, recover excess food for donation, and recycle food scraps via composting and other modes of organic recycling. However, the vast majority of these initiatives have focused on recycling consumer food waste at the end of the supply chain, rather than proactively preventing food waste at its source. Moving forward, the federal government must act to educate consumers on the accurate expiration of their food and beverage purchases, facilitate charitable food donations, eliminate the current trend of increasing portion sizes, and provide financial assistance for states to develop organic recycling programs and facilities. Working towards these objectives will help the United States reduce its overall GHG emissions, provide meals to food-insecure families, and help ensure a healthy environment for future generations.