Food Recovery Hierarchy Compendium

Programs and Strategies



A resource to assist decision makers, materials management staff, nonprofit organizations, citizen activists, and others in implementing and expanding Food Recovery Hierarchy programs.

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Project resources, including a <u>Reduce Wasted Food - Tip Sheet for Residents</u> and webinar presentations and recordings are <u>posted</u> on the NERC website. Additional NERC organics and food scrap management resources can be found by searching in NERC's "<u>Resource</u>" directory. Documents include: <u>Organic Materials</u> <u>Management & Composting for Rural, Small, and Tribal Communities; School Waste Reduction, Recycling, and Composting; Food Waste Reduction in Schools; and, Special Event Food Scrap Diversion Guide.</u>

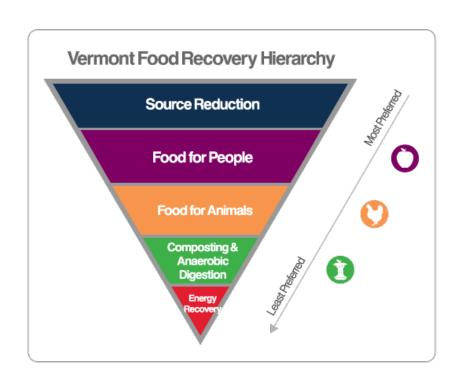
If we missed a program or organization that should be included in the Compendium, please email <u>Athena Lee</u> <u>Bradley</u>. Cover photo credit: Tompkins County, New York.

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Introduction

Focusing on organics material management offers communities a cost-effective opportunity to beneficially develop these resources. This Guidance Document presents best management practices for developing and implementing programs that promote the "hierarchy" of organics management—reduce, reuse (recover), and recycle (compost or anaerobic digestion). It is specifically designed as a "how to" guide to meet the needs of rural, small, and tribal communities. However, examples in the guide come from communities of all sizes that present models of success that can be implemented in rural, small town, suburban, and urban areas. Nonprofit organizations, for-profit businesses, and government agencies involved in researching, reporting, developing, and/or implementing the Food Recovery Hierarchy are also included in the Compendium.

Format and Use of Examples Included in this Compendium

The Compendium is separated into easy-to-follow sections. It is recommended that you start by taking a look at the Table of Contents. Each section represents one facet of the Food Recovery Hierarchy—Food Waste Reduction, Food Recovery for People, Food Recovery for Animals, Composting, and Anaerobic Digestion. Compendium examples include synopses and hyperlinks.

Each Section contains an introduction, followed by examples of Food Recovery Hierarchy actions occurring at the national level and examples of actions being taken within each state.

Wasted Food Reduction

Food loss or food waste refers to food that is not eaten by people. Wasted food can occur along each stage of the food supply chain. *On the farm*, crops may be left unharvested because of a variety of reasons, including weather or insect damage, cosmetic reasons, lack of demand at the time of harvest, or labor shortages. During *processing*, food loss can occur if products are mislabeled. At *distribution centers*, cans or other packaged items may become dented or damaged. At *grocery stores*, food can be damaged during stocking or due to consumer handling; "imperfect" produce is often rejected by employees or consumers; and food may be unsold and become "outdated." At *restaurants*, food scraps result during meal preparation and when consumers leave served food uneaten. In households, confusion over "best by" product date labeling leads to often wholesome food being discarded; also, too much food may be purchased or cooked, going to waste if uneaten.

The United States spends \$218 billion a year growing, processing, transporting, and disposing of food that is never eaten. An estimated 52 million tons of food is sent to landfills annually; another 10 million tons is discarded or left unharvested on farms. Food waste in the U.S. consumes 21% of agricultural water usage, 18% of all farming fertilizer, and 21% of landfill volume. An estimated 2.6% of U.S. greenhouse gas emissions each year results from wasted food. Around 40% of all edible food in the United States is wasted, amounting to more than 400 pounds of food per person per year. As much as 85% of this waste occurs "downstream" at consumer-facing businesses (e.g., restaurants) and homes.

Implementing the <u>Food Recovery Hierarchy</u> presents an opportunity to decrease solid waste generation, mitigate environmental impacts and resource use, improve food security, create jobs, conserve water, and reduce greenhouse gas emissions and water pollution. Better food management practices can be easily implemented at home, schools, institutions, and commercial food outlets (including restaurants, bakeries, and grocery stores). Smart food handling techniques can reduce food discards that result from improper storage and handling, overproduction, expiration, spoilage, and preparation trimming. Edible food can be recovered for donation or to feed livestock.

National

- The <u>EndFoodWaste.org Ugly Fruit & Veg Campaign</u> uses images of less than perfect produce, in order to highlight the 20-40% of all produce that goes to waste due to strict grocer cosmetic standards. Images and "ugly produce" facts and tips for action are posted on the Campaign's Twitter, Instagram, We Heart It, and Facebook social media platforms. The website hosts an <u>Ugly Fruit And Veg Supermarket Directory</u> listing retailers that market "misfit" produce.
- <u>Food and Agriculture Organization of the United Nations</u> (FAO) hosts <u>SAVE FOOD: Global Initiative on Food Loss and Waste Reduction</u>, an international partnership effort against food loss and food waste. The website has resources and other information.
- The <u>FoodKeeper App</u>, developed by the USDA's Food Safety and Inspection Service, with Cornell University
 and the Food Marketing Institute, helps consumers understand food and beverage storage in order to
 maximize the freshness and quality of items. It is also available as a mobile application for
 Android and Apple devices.
- The <u>Food Loss & Waste Protocol</u> is a multi-stakeholder partnership that developed the global Food Loss
 and Waste Accounting and Reporting Standard or "<u>FLW Standard</u>." The FLW Standard enables companies,
 countries, cities and others to quantify and report on food loss and waste so they can develop targeted
 reduction strategies and realize the benefits of reducing food waste. The website contains <u>case studies</u> of
 companies using the FLW Standard and <u>tools and resources</u>.

- <u>Food Policy Action</u> is a collaboration of national food policy leaders in order to hold legislators accountable
 on votes that have an effect on food and farming. Its goal is to change the national dialogue on food policy
 by educating the public on how elected officials are voting on these issues.
- <u>Food Republic</u> hosts a <u>Where Food Goes in the Fridge</u> infographic and other fridge facts and information for effective food storage. The website also offers other <u>Green Scene</u> articles on reducing food waste.
- <u>Food Steward's Pledge</u> is a program of the <u>US EPA</u> to engage the faith based community and raises awareness about climate change through reducing food waste and hunger.
- Further With Food was initiated through a public-private partnership between the Academy of Nutrition and Dietetics, Feeding America, the Food Marketing Institute, the Grocery Manufacturers Association, the Innovation Center for U.S. Dairy, the National Consumers League, the National Restaurant Association, Natural Resources Defense Council, the U.S. Department of Agriculture, the U.S. Environmental Protection Agency, the World Resources Institute, and the World Wildlife Fund, with funding and collaboration from the Rockefeller Foundation. The website's "virtual resource center" serves as a platform for businesses, government entities, investors, NGOs, academics, and individuals to find and share information about solutions and innovative new approaches to reduce the volume of surplus food generated, feeding hungry people, and diverting food and scraps to the highest beneficial use.
- **GRACE Communications Foundation** develops innovative strategies to increase public awareness of the critical environmental and public health issues created by our current industrial food system, and to advocate for more sustainable alternatives. Their <u>Food Waste</u> resources include an <u>overview</u> of where and how food waste occurs, the drivers of food waste, and environmental impacts and <u>Food Date Labeling</u>.
- <u>Green Restaurant Association</u> certifies restaurants for fulfilling requirements in various areas including reducing food waste, food recovery, and diversion.
- Harvard Law School Food Law and Policy Clinic (FLPC) works on a number of initiatives, including reducing the waste of healthy, wholesome food. FLPC has developed numerous resources, including <u>Don't Waste</u>, <u>Donate: Enhancing Food Donations through Federal Policy</u>; <u>Keeping Food Out of The Landfill: Policies and Ideas for States and Localities</u>; <u>Leftovers for Livestock</u>: <u>A Legal Guide for Using Excess Food as Animal Feed</u>; <u>The Dating Game</u>: <u>How Confusing Food Date Labels Lead to Food Waste in America</u>; and, other publications.
- Johns Hopkins Bloomberg School of Public Health Center for a Livable Future Food Policy Networks
 project fosters the development of effective state and local food policy through networking, capacity
 building, research, and technical assistance. Its website contains a wide range of resources, including
 Keeping Food Out of the Landfill: Policy Ideas for States and Localities.
- <u>LeanPath</u> assists commercial kitchens prevent food waste through the use of food waste "smart meters."
 Its food waste tracking systems help restaurants, institutions, and other entities reduce food waste costs through tracking and evaluating waste so that it can be better managed. The company provides technical assistance to users of its systems. LeanPath also has numerous <u>resources</u> on waste food reduction, recovery options, and diversion, and sponsors webinars.
- National Center for Home Food Preservation is a resource for current research-based recommendations for most methods of home food preservation.
- The <u>National Farm to School Network</u> (NSFN) works to bring food and agriculture education into school systems and early care programs. NFSN serves as an information, advocacy, and networking hub. The network, which includes more than 42,000 schools in all 50 states, envisions a nation in which farm to school programs are an essential component of strong and just local and regional food systems.
- The <u>National Restaurant Association's ConServe program</u> provides information to help restaurants reduce food waste and donate edible food. Its website hosts a <u>Best Practices</u> section with tips for reducing food waste; it also has a number of "how to" videos for restauranteurs. The <u>Tools & Solutions</u> webpage with information on donating food, zero waste, and more.
- The <u>New York State Food System Sustainability Clearinghouse</u> contains resources for non-manufacturing businesses involved in food retail or service, including colleges and universities, hotels, hospitals and

nursing homes, restaurants, k-12 schools, supermarkets and grocery stores, entertainment facilities, and wholesale/distribution centers. Resources include wasted food <u>reduction</u> information, a <u>Food Waste</u> <u>Estimator calculator</u>, and <u>assessment and tracking tools</u>.

- ReFED is a collaboration of business, nonprofit, foundation, and government leaders dedicated to reducing food waste in the U.S. by 50 percent by 2030. In March 2016, ReFED released the Roadmap to Reduce U.S. Food Waste, an economic study of food waste aimed at providing a feasible guide for action. It features 27 of the most cost-effective ways to reduce food waste based on societal economic value, business profit potential, and other non-financial impacts. Its U.S. Food Waste Policy Finder has listings of policies around the country. The ReFed Innovator Database is an updated compilation of commercial and nonprofit entities turning the food waste problem into an opportunity. The database can be searched by food waste solution type, organizational status, and geographic reach.
- The <u>Think.Eat.Save</u> campaign of the <u>Save Food Initiative</u> is a partnership between UNEP, FAO, and Messe Düsseldorf, and in support of the UN Secretary-General's Zero Hunger Challenge. The campaign seeks to add its authority and voice to these global efforts to reduce food loss, conduct regional and national actions, catalyze more sectors of society to be aware and to act. The website hosts action ideas, news and resources.
- Save the Food is a national food waste reduction campaign sponsored by the Natural Resources Defense
 Council and the Ad Council. The campaign targets U.S. consumers and strives to raise awareness about the
 fact that consumers contribute to about forty percent of food thrown away. Their PSA video, "The
 Extraordinary Life and Times of Strawberry," follows the life of a strawberry from the field to consumer's
 refrigerator.
- The <u>United States Department of Agriculture</u> (USDA) has numerous <u>Food Waste</u> resources, including the <u>U.S. Food Waste Challenge</u> and <u>U.S. Food Waste Champions</u>. A <u>Selected New and Ongoing USDA Food Loss and Waste Reduction Activities</u> contains links to USDA resources and programs, along with tips on food waste reduction.
- The <u>United States Environmental Protection Agency Sustainable Management of Food</u> website hosts various resources for reducing, recovering, and diverting food scraps, including: <u>Wasted Food Programs and Resources Across the United States</u>. EPA and the West Coast Climate and Materials Management Forum developed the <u>Food: Too Good to Waste toolkit</u> which can be customized and used by any community. The toolkit demonstrates how to reduce wasteful household food consumption by focusing on social marketing incentives and messages directed at individuals within targeted communities.
- <u>U.S. Food and Drug Administration</u> has a <u>Refrigerator & Freezer Storage Chart</u>.
 <u>WastED</u> is a community of chefs, farmers, fishermen, distributors, processors, producers, designers, and retailers collaborating to reconceive "waste" that occurs at every link in the food chain.
- World Resources Institute works on six critical goals for the world to secure a sustainable future, including Food. WRI conducts research and has numerous publications, including the 2017 <u>Companies Save Money by Reducing Food Loss and Waste</u>.

Alaska

<u>Green Star of Interior Alaska</u> is a local nonprofit serving the Fairbanks North Star Borough. The
organization strives to encourage reuse of materials, reduce unnecessary waste, and increase recycling
efforts in the Fairbanks area. Green Star provides food waste awareness <u>education</u> and also sells home
composting bins.

Arkansas

- The <u>University of Arkansas</u> collaborated with EPA and the USDA on a <u>Guide to Conducting Student Food Waste Audits: A Resource for Schools</u> on how to do a food waste audit and what to do with the data collected. The University also hosts an annual "<u>Project Clean Plate</u>" to promote wasted food reduction in campus dining halls. The event takes place over a five-week span each year. Weights are posted and charted during the event to see how waste decreases during the five-week period.
- Arkansas Farm to School helps schools and communities to engage students in their food system and
 empowers them to participate in their food choices. The program also fosters food recovery efforts, school
 gardening, and composting.
- Washington Elementary School in Fayetteville piloted a student food plate waste audit in 2015, resulting
 in a 20% reduction in milk waste. Through its "Farm to Store to School" partnership with Natural Grocers,
 surplus produce is used to make fresh, healthy snacks for students in afterschool programs.

California

- <u>CalRecycle's Food Scrap Management</u> website contains resources for implementing the food recovery hierarchy for <u>Hotels/Restaurants</u>; <u>Households</u>; <u>Schools</u>; <u>Stadiums/Special Events</u>; <u>Health Care Industry</u>; and, Grocery Stores.
- <u>CalRecycle's Hotels and Restaurants</u> webpage contains a range of resources, including its <u>Commercial Climate Calculator</u>; links to the state's <u>Green Business Program</u>; <u>Local Assistance</u> information and contacts; information on the state's <u>Mandatory Commercial Organics Recycling</u> requirements; links to <u>Food Banks and Food Recovery Organizations</u>; <u>Food Waste Diversion Funding Sources</u>; <u>Organics Publications and Videos</u>; and, tips on implementing the food recovery hierarchy.
- <u>Imperfect Produce</u> is a produce delivery service which sources "ugly" fruits and vegetables that usually go to waste on farms. Fruits and vegetables are delivered direct to consumers.

Colorado

- <u>FoodMaven</u> is an online B2B marketplace that distributes oversupplied food from retailers, distributors, and wholesalers directly to the foodservice buyer.
- The <u>University of Colorado Environmental Center</u> sponsors <u>Scrape Your Plate Day</u> three times a semester as a way to motivate students to think about their food waste. During the events, student employees stand by compost bins located at the tray returns. Students scrape their leftovers into the bins which are weighed to measure the amount of food waste generated at every meal, as well as create awareness in students. In Fall 2016, the average amount of food scraps per person was 0.16 pounds for dinner; this is significantly down from 2010 when the average was 0.42 pounds in 2010.

Connecticut

The <u>Connecticut Department of Energy and Environmental Protection</u> sponsors a *Food Waste Reduction* and *Recovery* website with resources, including legal factsheets: <u>Connecticut Food Donation</u>: <u>Date Labeling Laws</u>; <u>Connecticut Food Donation</u>: <u>Liability Protections</u>; <u>Connecticut Food Donation</u>: <u>Tax Incentives for Businesses</u>; and, <u>Connecticut Food Donation</u>: <u>Feeding Food Scraps to Animals</u>.

Florida

- The City of Fort Lauderdale's web site includes information on how to reduce food waste.
- The <u>University of Florida Extension</u>'s website includes information on how to reduce food waste.

Illinois

• <u>Mindful Waste</u> is a nonprofit organization dedicated to eliminating food waste through education, prevention and recovery. The organization works with Illinois schools to rescue and donate uneaten food and to implement food waste composting programs.

Indiana

- The <u>Indiana Department of Education</u> hosts a <u>Food Waste Prevention</u> webpage with several resources, including: a <u>Food Waste Prevention Fact Sheet</u>; a <u>Conquering Food Waste Webinar</u>; and, <u>Conquering Food Waste PowerPoint and Script</u>.
- The <u>Indiana Recycling Coalition</u> directs the <u>Indiana Food Scrap Initiative</u>, a multi-stakeholder initiative that explores the causes of food waste, in order to develop solutions to food waste reduction, recovery, and diversion at the local and state level. Its website includes a <u>map</u> of the infrastructure that currently exists for managing food scraps across the state.
- <u>Indiana University Bloomington Office of Sustainability</u> hosts a <u>Food webpage</u> with information on sustainable eating, as well as <u>reducing food waste</u>.

Iowa

- <u>lowa City</u> participated in EPA's <u>Food too Good to Waste</u> program. The City's <u>Food Waste</u> webpage has
 information about the problems caused by food waste, along with <u>REDUCE food waste</u>: <u>Food Too Good To</u>
 Waste Strategies.
- The <u>Iowa Waste Reduction Center</u> on the University of Northern Iowa campus (IWRC) is a nationally recognized organization that provides environmental consulting, assistance, training and education. Through their work in <u>Food Waste</u>, IWRC builds collaborations, conducts trainings, and develops educational resources, including: <u>Food Waste Reduction Tips</u>, Through their USDA Rural Utilities Service funded, <u>Rural Iowa Food Waste Reduction Project</u>, IWRC provided free on-site, hands-on technical assistance to Iowa food waste generators in select rural counties of Iowa. Resources and case studies developed for the project are posted on the project website.

Hawaii

• The <u>City & County of Honolulu's Department of Environmental Services</u> hosts a <u>Food Waste Prevention</u> webpage with resources and links for households and businesses.

Maine

- The <u>University of Maine Cooperative Extension</u> has an informative fact sheet series Food for ME: Citizen
 Action for Community Food Recovery: <u>Steps to Organizing Your Community Garden</u>; <u>Food for Your
 Community: Gleaning and Sharing</u>; <u>Food Safety for Food-Pantry Donations</u>; <u>A Donor's Guide to Vegetable</u>
 Harvest; and, A Food Pantry Wish List.
- The University of Maine <u>Senator George J. Mitchell Center for Sustainability Solutions</u> provides a widerange of resources on food waste reduction and recovery.

Maryland

- The <u>Chesapeake Foodshed Network</u> (CFN) works to build connections and collaborations that build a
 sustainable, resilient, inclusive, and equitable regional food system in the Chesapeake Bay watershed. The
 CFN <u>Food Waste & Recovery Work Group</u> brings together stakeholders representing food waste, food
 recovery, food repurposing, food conservation, and related areas with a shared goal of better
 understanding and advancing the food system of the Chesapeake Bay region.
- growingSOUL (Sustainable Opportunities for Universal Learning) is dedicated to promoting public
 awareness about the vital role of human interdependence and reciprocity in developing and promoting a

 ZERO WASTE sustainable food system. The organization demonstrates and teaches strategies for creating a
 zero-waste food cycle including composting, local food production, preparation, and preservation.
- The <u>Maryland Department of the Environment's Food Scraps Management</u> webpage contains information
 on the <u>Food Recovery Hierarchy</u>, including food waste reduction and recovery information; presentations
 from the 2016 Maryland Food Recovery Summit; a comprehensive list of <u>Food Waste Reduction</u>
 <u>Advocating Organizations and Campaigns</u>; <u>Grocery Stores that Collect Food Scraps and/or Have Food</u>

<u>Donation Programs</u>; and, links to related <u>Documents and Resources</u> and <u>Articles</u>. The <u>2017 Maryland Food Recovery Summit Summary and Action Items</u> presents opportunities for reducing food waste around the state.

- <u>Sustainable Maryland</u> is a certification program hosted by the <u>Environmental Finance Center</u> (EFC) at the
 University of Maryland and the <u>Maryland Municipal League</u> for municipalities that promote greenery,
 saving, and sustainability, including implantation of waste reduction programs.
- The Department of Dining Services at the <u>University of Maryland</u>, College Park (UMD Dining Services), is committed to supporting the University's goal of being a "model of a green university." UMD Dining Services Green Dining Projects, including <u>Waste Management</u>, with initiatives to help <u>reduce waste</u> on campus. The Dining Service has initiated waste food reduction efforts, food recovery, and composting resulting in a waste diversion rate of 74%.

Massachusetts

- The State of Massachusetts has a <u>ban</u> on the disposal of food waste from commercial generators of one ton or more of food scraps per week. The <u>Massachusetts Department of Environmental Protection</u> has a variety of resources on their website regarding organics management, including: <u>Organics Study And Action Plan</u>; a <u>Commercial Food Waste Disposal Ban</u> & <u>video</u>, which includes details about the ban and information businesses should know about how it affects them; and a <u>Massachusetts Commercial Food Waste Ban Economic Impact Analysis</u>.
- Massachusetts created a Statute in 2010 to create a 17-member <u>Food Policy Council</u> (FPC). The FPC includes four members from the legislature, six members from various agencies, and seven industry representatives appointed by the Governor from groups within the food production and marketing chain. The FPC developed the <u>Massachusetts Food Policy Council's White Paper on Food Waste Reduction</u> with recommendations for reducing food waste.
- The <u>Trimming the Fat: Cutting Costs by Reducing Food Waste</u> webpage has wasted food reduction tips and resources for businesses.
- RecyclingWorks in Massachusetts helps businesses and institutions maximize recycling, reuse, and food waste diversion opportunities. The website contains numerous food waste related resources.

Michigan

- With a grant from the Petoskey-Harbor Springs Area Community Foundation, <u>Emmet County Recycling</u> partners with local restaurants and florists to collect and compost wasted food.
- The Food Waste & Packaging Policy Action Team of the <u>Washtenaw County Food Policy Council</u> develops policy and educational campaigns around food waste prevention and food waste recovery systems from businesses, institutions, residents and agencies.
- The <u>Western Michigan Food Recovery Council</u> is a multidisciplinary council of food waste stakeholders founded by the West Michigan Sustainable Business Forum to promote food recovery among local businesses and institutions. The Council is serving commercial and industrial markets in West and Southwest Michigan, including Kent, Ottawa, Muskegon, Kalamazoo, Allegan and Berrien counties. Its primary focus is on large grocery operations and the commercial and institutional food service operations, through working to provide access to peer-to-peer education, multidisciplinary networking, technical resources, and opportunities for collaboration.

Minnesota

- <u>Eureka Recycling</u> strives to make zero waste a reality. It's <u>Make Dirt Not Waste</u> website has a number of resources on wasted food prevention, including the <u>Top 10 quick and easy tools and tips</u> for reducing food waste, a <u>food storage tips database</u>, A-Z <u>Food Storage Tips--Quick Reference</u>, and a <u>meal planning tool</u>.
- The <u>Jeffers Foundation</u> <u>Waste Reduction Awareness Program</u> (WRAP) website contains numerous resources for school food waste reduction, including: <u>Offer Versus Serve</u>, <u>Portion Control</u>, <u>Surveying</u>

<u>Students and Staff on Food</u>, <u>Pre-Cutting Fruits and Vegetables Before Serving</u>, <u>Educating Parents on How to</u> Pack a Waste-Free Lunch; Weighing and Recording Food Waste, and more.

- The Minnesota Pollution Control Agency website features resources for addressing food waste.
- <u>Rethink Recycling</u> has a <u>Community Education Toolkit</u> which contains an <u>Organics Management</u> section for communities to learn about managing organic waste and food scraps, including back yard composting. Its website includes a business <u>directory</u> of food recovery, food scraps to animals, and composting service providers, as well as business food waste reduction, recovery, and composting <u>resources</u>.

Nebraska

- The <u>University of Nebraska at Kearney</u> (UNK) sponsors <u>Project Clean Plate</u>. The event, which takes place twice a semester, is a UNK Dining Services campaign held in conjunction with the campus Residence Hall Association to reduce food waste and bring awareness to world hunger and poverty.
- <u>University of Nebraska–Lincoln Extension Services</u> has a <u>webpage</u> on how consumers can reduce food waste and a <u>Makeover Your Leftovers</u> guide.

Nevada

• The <u>Southern Nevada Food & Organics Recovery Workshop Final Report & Analysis</u> discusses Food Recovery Hierarchy opportunities in Nevada.

New Hampshire

• The <u>University of New Hampshire</u> (UNH) in Durham (population 14,638), dining hall kitchens practice source reduction to control pre-consumer waste through purchasing guidelines, inventory control, and food production. The campus also has a student outreach program called <u>"Take Less, Waste Less"</u> <u>campaign</u> where student volunteers staff informational tables to help make students aware of the topic of food waste. UNH also has a campus-wide food scrap composting program.

New Mexico

- The <u>New Mexico Recycling Coalition</u> has compiled best practices guides for the diversion of food scraps, including <u>Managing Food Waste in NM: Restaurants</u>; <u>Managing Food Waste in NM: Grocers</u>; <u>Planning for Communities to Manage and Divert Food Waste</u>.
- The <u>New Mexico State University Institute for Energy and the Environment</u> provides free assistance to businesses in evaluating and launching a food waste diversion program.

New York

- The New York State Association for Reduction, Reuse, and Recycling (NYSAR³) is leading a state-wide food recovery campaign to engage New Yorkers to reduce wasted food, redirect surplus food to those who are food insecure, and to recycle remaining food scraps. The campaign fosters a better understanding of the root causes of wasted food, as well as engaging stakeholders to collaboratively develop strategies for source reduction and recovery. It's website has a Donation Organization List with links for food banks, food pantries, meal centers, and other organic resources around New York State. The website also has links to "Digital Tools"—innovative applications designed to help prevent food waste and recover surplus food for those in need. The Campaign hosts four working groups for interested stakeholders to join and a Facebook page.
- The New York State Department of Environmental Conservation has a Reducing Wasted Food from Households website with tips and resource links.
- The <u>Tompkins County Department of Recycling and Materials Management</u> provides extensive tips and information on food waste prevention for residents. The Department received a grant from New York State Pollution Prevention Institute in support of their <u>Save the Food</u> project. To assist communities and organizations interested in developing a food waste prevention program in their own area, the

Department created the <u>Save The Food manual</u>. The manual contains project summaries, tips, and lessons learned.

Ohio

 The <u>Ohio Environmental Protection Agency</u> <u>Food Scraps Recovery Initiative</u> encourages communities and businesses to divert food scraps from landfills through reduction, recovery, and diversion to composting or anaerobic digestion. It also, and features an extensive list of food banks where excess food can be donated.

Oklahoma

 The annual Oklahoma Food Security Summit, sponsored by the <u>Tulsa Food Security Council</u>, brings together national, state, tribal, local food policy experts and community members to assess current conditions leading to food insecurity, create solutions, and take action.

Oregon

- Guidelines on preventing wasted food are posted on several government websites around the state, including <u>City of Beaverton</u>, the <u>City of Gresham</u>, and, <u>Washington County</u>
- Oregon Department of Environmental Quality has developed a Strategic Plan for Preventing the Wasting of Food.
- Take the pledge to "Save the Food" with Marion County.

Tennessee

• The <u>Tennessee Department of Environment and Conservation</u> (TDEC) Offices of Sustainable Practices and Policy and Planning document, <u>Southeastern States Efforts to Address Wasted Food and Food Waste Upstream of Composting</u>, summarizes research completed by the to document current efforts in Southeastern States to address wasted food and food waste reduction upstream of composting and identify recommendations for opportunities for further wasted food and food waste reduction upstream of composting to be pursued for potential implementation in Tennessee.

Texas

- The <u>Austin Resource Recovery Master Plan</u> considers the highest and best use of food waste and acknowledges the use of compost to enrich soil and strengthen sustainable food production.
- <u>Texas A&M AgriLife Extension Service</u> has a <u>Reducing Food Waste at Home</u> resource which includes tips and other information.

Virginia

 <u>Virginia Department of Environmental Quality</u> (DEQ) hosts <u>Virginia Green</u> a partnership between DEQ, the Virginia Tourism Corporation, and the Virginia Restaurant, Lodging and Travel Association (VRLTA). The program provides resources, case studies, and other information to assist in the reduction of environmental impacts of the tourism industry and raise environmental awareness.

Washington

- Several communities and counties in Washington have adopted the US EPA Food: Too Good to Waste program, including: the City of Issaquah; King County; Thurston County; and, the City of Tacoma.
- Find food waste reduction and gleaning information on the <u>Clallam County</u> website.
- The <u>State of Washington Department of Ecology</u> website lists food prevention workshops, food waste and prevention information and data, and food recovery groups. The Department's <u>Waste 2 Resources (W2R)</u>
 <u>Program</u> is working to reach goals outlined in the Organics Initiative of the <u>State Solid and Hazardous</u>
 <u>Waste Plan</u> (Washington's strategy for managing hazardous and solid waste).

• The <u>Washington State University Extension</u> hosts a *Food Waste Reduction and Gleaning* webpage which explains how and why to get involved in food waste reduction and gleaning opportunities around Clallam County, Washington.

Utah

• Recycle Utah has published a manual for middle school students which addresses food waste reduction strategies and composting.

Vermont

Vermont FEED (Vermont Food Education Every Day) fosters awareness about healthy food, good nutrition, and the role of Vermont farms and farmers in helping sustain a healthy community. Farm to school activities incorporate local and seasonal foods into school meals, helping to build community and healthy opportunities for students, while also resulting in reduced food waste when students are engaged in eating local foods. Its website hosts Farm to School resources, including school gardening information.

Food Recovery Programs

Food to People

Food "waste" is often not "waste," but discarded food that is nutritional and safe to use. In 2016, an estimated 12.3 percent of American households were food insecure at least at some time during the year, meaning they did not have access to enough food for an active, healthy life for all household members. Promotion of food donation is one way that communities can work to reduce and better manage food discards, while also providing social benefits for the community. Businesses benefit from food donation through reduced disposal costs and opportunities for potential tax benefits.



Food rescue, also called food recovery or food salvage, is the practice of collecting donations of edible food that would otherwise go to waste from places such as food distribution centers, grocery stores, dining facilities (such as colleges or hospitals), restaurants, caterers, produce markets, or dining facilities. Donations are then distributed to food recovery programs.

A food bank is typically a charitable organization that solicits and warehouses donated food and other items. Collected food is distributed to community agencies which serve people in need, often servicing hundreds of community-based organizations in large geographic areas. Food banks will usually accept foods that are packaged or can be stored for a period of time. Food recovery or rescue programs (often affiliated with homeless shelters) usually redistribute perishable foods locally, such as already prepared food from caterers, restaurants, and cafeterias.

Farm Gleaning

As much as <u>ten million tons</u> of edible food are left unharvested on farms every year. Food loss on farms can result from a number of reasons:

- 1. Uncertain economics or weather;
- 2. Growing more than the market ultimately supports;
- 3. Damage to crops by weather, disease, or pests;
- 4. Competing harvesting priorities that result in a lack of time to harvest and ready all produce for market
- 5. Unexpectedly lower prices for produce (if prices arer lower than costs of transportation and labor, farmers may leave their crops unharvested);

- 6. Blemished or misshapen produce (although edible) left in the field;
- 7. Produce left in the field due to labor shortages; and,
- 8. Food loss during market preparations, such as washing, packing, storing, and transporting.

The U.S. Department of Agriculture (USDA) defines <u>gleaning</u> as the "act of collecting excess fresh foods from farms, gardens, farmers markets, or any other source in order to provide it to those in need." It was a <u>legally</u> sanctioned practice in ancient Christian communities, and in many European communities and England until modern times.

The age-old practice of harvesting remaining or leftover crops in a field after a farmer has harvested what he or she plans to market or use has recently gained momentum around the United States, along with growing awareness of food waste and its consequences. Gleaning is often coordinated by organized groups that collect and bag items for local food banks. Some organizations may also process items by canning or freezing. The practice is also conducted on a more informal basis—for example, when a farmer allows neighbors to pick leftover crops for personal use.¹

The <u>Federal Bill Emerson Good Samaritan Food Donation Act</u> is a federal law that protects donors from civil and criminal liability associated with the "condition... of apparently wholesome" foods if donated in "good faith." It also protects the food recovery organizations in receipt of these donations. The Act also protects farmers who support gleaning from civil and criminal liability, except in cases of gross negligence, if individuals collecting food for donation to charity are injured on their property. In addition, all fifty states have passed Good Samaritan Laws at the state level; some of these laws provide additional liability protection and/or incentives.

The Harvard Law School Food Law and Policy Clinic and the Natural Resources Defense Council produced a comprehensive look at the Federal and State laws pertaining to food donation—<u>Don't Waste, Donate:</u>
<u>Enhancing Food Donations Through Federal Policy</u>. The University of Arkansas School of Law published <u>The Legal Guide to the Bill Emerson Good Samaritan Food Donation Act</u>.

National

- AmpleHarvest.org aims to be a nationwide resource to help reduce wasted food with the goal to reduce hunger and improve our environment. Through AmpleHarvest.org, gardeners who have excess produce can locate a food pantry near them, find directions to the pantry, as well as the pantry's day/time for receiving donations. Pantries can register for free on the website; to date more than 8,000 food pantries have registered on AmpleHarvest.org.
- The <u>Campus Kitchens Project</u> (CKP) is a national leader in community service for students. It partners with more than 60 schools around the country big schools and small, rural and urban, colleges and high schools to empower the next generation of leaders to implement innovative models for combating hunger, developing food systems and helping communities help themselves. CKP works with its partners to set up food recovery programs in school cafeterias and engage students as volunteers is preparing and delivering meals to the community.
- <u>End Hunger in America</u> is a nationally-based nonprofit which provides tools to help communities address local hunger and food insecurity issues. The website has publications for starting a food pantry, as well as helpful videos.

¹Many organizations providing food recovery (donation) services also sponsor gleaning opportunities.

- <u>Farmers and Hunters Feeding the Hungry</u> (FHFH) works with hunters and farmers to provide nutritious meat to feed the hungry of their communities. The organization maintains a <u>list</u> of inspected and approved meat processors that will process donated deer, elk and livestock at no cost.
- <u>Feeding America</u> is a nationwide hunger-relief organization network of 200 food banks and 60,000 food pantries and meal programs. The organization conducts extensive <u>research</u> on hunger, food insecurity, and related issues. It hosts a <u>map locator tool</u> for its network of member food banks.
- FEEDING Minribani Iona
 AMERICA MINGER-FREE AMERICA
- <u>Feeding America West Michigan</u> offers resources and videos about how to run an effective food pantry, including a <u>Fundraising Toolkit</u>, <u>recordkeeping log</u>, <u>mobile pantry resources</u>, and <u>food safety tips for donation organizations</u>.
- Findafoodpantry.org is a user-friendly search tool for finding food pantries in the United States.
- <u>Food Cowboy</u> uses mobile technology to help food companies, including wholesalers, distributors, brokers, and packers, move surplus and unsaleable inventory to charities and organic waste to composters. It has established the <u>Food Cowboy Foundation</u> to assist food banks to help cover the costs of recovering food with a goal toward adding capacity and developing new service models. The organization also develops education tools to inform the businesses and consumers about waste and sustainability.
- <u>Food Donation Connection</u> assists food service companies with the development and implementation of
 "Harvest Programs" (food recovery) as an alternative to discarding surplus food. Food Donation
 Connection works in partnership with the <u>National Restaurant Association</u>, which encourages its members
 to donate more food. Their website contains information on <u>Food Safety</u> and <u>United States Tax Benefits</u>.
 The company provides a range of <u>services</u>, from program design to identifying collection agencies for
 donors.
- FoodPantries.org has a directory of food pantries in each state.
- <u>Food Rescue US</u> hosts a technology based, direct-transfer platform that allows volunteer food rescuers
 across the country to deliver fresh surplus food from businesses to local food recovery organizations. The
 Food Rescue US app matches excess food from Food Donors with Receiving Agencies that need it, and
 volunteer Food Rescuers who transport it. The app provides all details for every food rescue, including
 how much food there will be, where to pick up and deliver, who to contact, etc.
- The <u>Food Recovery Network</u> recovers meals from college dining halls and delivers them to local partners
 to distribute to the community. The network has 230 chapters in 44 states and Washington, D.C. Through
 the efforts of student volunteers, the network has recovered more than 2 million pounds of food. Students
 recover surplus food from their dining hall, package it and freeze or refrigerate it for transportation to
 partner food rescue organizations.
- Food Republic hosts a Where Food Goes in the Fridge infographic and other fridge facts and information for effective food storage. The website also offers other Green Scene articles on reducing food waste.
- Food Waste Reduction Alliance works under the auspices of the food sector's leading trade associations, the Grocery Manufacturers Association (GMA), the Food Marketing Institute (FMI), and the National Restaurant Association (NRA). Its members strive to address the challenges of food waste in their operations in order to reduce food waste and their environmental footprint, while also working to donate edible surplus or recycle unavoidable food waste. FWRA has undertaken assessments of the volume of food waste being produced by each member sector—manufacturing, retail and foodservice. It has also developed recommended emerging solutions and best practices for food manufacturers, retailers and foodservice operators.
- <u>Further With Food</u> provides comprehensive information about food loss and waste in the United States and about solutions dedicated to reducing it. This virtual resource center offers a broad spectrum of users such as businesses, government entities, investors, NGOs, academics, and individuals —a platform to

find and share information about proven solutions and innovative new approaches to reduce the volume of surplus food generated, feed hungry people, and divert food and scraps to the highest beneficial use.

- MEANS is a nonprofit organization which uses a web-based platform where registered donors post edible, surplus food for donation. Food rescue organizations in the vicinity receive email notifications of available surplus, send an email to MEANS to "claim" the donation and then contact the donor to arrange for pickup. MEANS retains records of matches to ensure donors have required tax deduction verification information.
- The National Gleaning Project (NGP) is a project of the Center for Agriculture and Food Systems (CAFS) at Vermont Law School. The project was developed to meet the need for a national network to connect agricultural gleaning and fresh food recovery organizations across the United States, and to provide legal resources that can help foster their work. The NGP is specifically focused on legal barriers to enhancing gleaning and fresh food recovery by providing information on national and state laws and regulations pertaining to gleaning and food donation. The project has also developed state specific factsheets on gleaning and food donation liability, along with other resources. Its website contains an interactive map and listing of gleaning and fresh food recovery organizations across the country.
- Rescuing Leftover Cuisine (RLC) is a national nonprofit food rescue organization, operating in 12 cities and headquartered in New York City, that strives to provide solutions to wasted food. prevent excess wholesome cuisine from being wasted. RLC provides a range of services, including food waste consulting, excess food delivery, and tax credit assistance.
- Rock and Wrap It Up (RWU) is an anti-poverty think tank dedicated to researching, discovering, and nurturing potential sources willing to share "renewable assets" including food that is prepared but not served or sold. Its donors include touring bands, educational institutions, the hospitality industry, professional sports teams, hospitals and TV/film shoots throughout North America. The organization ties together food recovery and greenhouse gas emission reductions through its Whole Earth Calculator, a mobile phone/tablet application which converts pounds of food donated to the poor into total meals and CO2 reduction statistics. Its Hungerpedia is a live downloadable directory of agencies in need of contributions.
- <u>ServSafe Food Safety Training</u> is a food safety training provides administrated by the <u>National Restaurant</u> <u>Association</u>. The program provides instruction in safe food handling and storage practices useful for companies setting up donation/recovery programs, as well as food recovery organizations.
- <u>Society of Saint Andrew</u> has a national network that connects volunteers with farms to glean produce to distribute to food banks and other organizations serving marginalized communities, both urban and rural.
- <u>Spoiler Alert!</u> Helps connect food producers with food recovery and hunger relief organizations via the use of its free B2B online platform, <u>Spoiler Alert Marketplace</u>. <u>Spoiler Alert Enterprise platform</u> is an automated food management platform designed for wholesale distribution, manufacturing, and grocery retail businesses to manage unsold food inventory.
- There is a listing of <u>state health and environmental agencies</u> for more information on specifics relating to food donation, food to animals, and food scrap collection.
- <u>Sustainable America</u> is an environmental nonprofit organization which engages in public education, hands-on technical assistance, and strategic investment in emerging entrepreneurs and technologies with the goals of building sustainable fuel and food systems in the United States. The organization hosts a <u>Food Rescue Locator</u> directory of organizations around the United States that rescue, glean, transport, prepare, and distribute food to the needy in their communities. The organization's <u>resources</u> include videos, infographics, papers, and presentations on sustainable food and fuel issues and solutions.
- The <u>United States Department of Agriculture</u> (USDA) has numerous <u>Recovery/Donation</u> resources, including an overview of federal regulations and a list of food recovery organizations. The USDA's <u>Let's</u> <u>Glean: United We Serve Toolkit</u> provides tips on how to develop a successful gleaning program. USDA also sponsors the <u>U.S. Food Waste Challenge</u> and <u>U.S. Food Waste Champions</u> programs.

- The <u>United States Environmental Protection Agency</u> (US EPA) has numerous resources, including a, the <u>Food Recovery Challenge</u> for businesses and institutions, guidance for <u>Reducing Wasted Food At Home</u>, <u>Tools for Preventing and Diverting Wasted Food</u>, and <u>Wasted Food Programs and Resources Across the United States</u>, a listing of state and regional programs. EPA's <u>Food: Too Good to Waste Implementation Guide and Toolkit</u> provides resources for communities to implement a food waste reduction campaign.
- <u>United States Food and Drug Administration</u> has a <u>Refrigerator & Freezer Storage Chart</u>.

Alabama

- The <u>Alabama Food Recovery Network</u> has worked to establish a food recovery program at the <u>University</u> of South Alabama.
- Feeding the Gulf Coast (formerly Bay Area Food Bank) has a network of more than 400 partner agencies. The organization serves 24 counties in three states, covering 22,000 square miles along the southern regions of Alabama and Mississippi and the Florida Panhandle. Over 50% of its food is provided by donors through its Retail Store Level Pickup Program. The organization also partners with local gardeners and farmers to provide fresh produce through its Community Garden and Gleaning programs.
- Magic City Harvest, located in Birmingham, has been recovering excess food to help combat hunger and
 eradicate food waste across Jefferson, Shelby, and Talladega counties since 1995. The nonprofit delivers
 recovered food to the food insecure through a network of hunger relief organizations.

Alaska

• The <u>Food Bank of Alaska</u> receives nearly 70% of the food it distributes through donations from food producers, manufacturers, wholesalers, and grocers. The organization also has a unique program to save spoiled vegetables not suitable for distribution for use by local farmers with livestock.

Arizona

- <u>Borderlands</u>, based in Nogales (population 20,008) rescues <u>fresh produce</u> from retailers and produce distributors for donation around Arizona, other areas of the Soutwest, and Northern Mexico. Borderlands also partners with local ranchers and composting programs to <u>recycle</u> any unusable produce.
- The <u>Food Recovery Network of Arizona</u> has worked to establish food recovery programs at the <u>Northern Arizona University</u>.

Arkansas

- The <u>Arkansas Farm to School</u> program helps schools and communities to engage students in their food system and empowered them to participate in their food choices. The program also fosters food recovery efforts, school gardening, and composting.
- <u>Arkansas Foodbank</u> secures donations from the food and grocery industries, and other entities. The
 organization works with 150+ member charitable agencies to provide food to food pantries in 33 counties
 in Central and Southern Arkansas.
- The <u>Food Recovery Network of Arkansas</u> has worked to establish food recovery programs at the <u>Lyon College</u> and the <u>University of Central Arkansas</u>.
- Representing six Feeding America food banks and more than 400 hunger relief organizations, the <u>Arkansas</u>
 <u>Hunger Relief Alliance</u> implements programs to increase access to food and teach skills to make healthy
 food choices.
- The <u>Northwest Arkansas Food Bank</u> works with over 150 partner agencies to distribute food to four Arkansas counties.
- The <u>University of Arkansas Food Recovery Project</u> provides resources and legal information that support businesses in developing and implementing food recovery programs.
- Washington Elementary School in Fayetteville initiated an innovative farm to school initiative piloted a student food plate waste audit in 2015. The initiative was brought together through a partnership with the

Washington County Environmental Affairs Department, the US EPA, the USDA, and four other Washington county schools. Students conducted a five day plate waste audit that measured plate waste by categories, including fruit/vegetables, all other food waste, milk waste, other liquid waste, and unopened items. The initiative created an opportunity for the school to make changes to help students reduce food waste, including the establishment of a share table for unopened items, such as milk cartons, packaged food, and whole fruit. During the 2015-2016 school year students reduced their milk waste by 20% and shared unopened lunch meal items as afternoon snacks with other students. *The school* also initiated a "Farm to Store to School" partnership with Natural Grocers. Through this pioneering effort, the store donates its surplus produce to the school twice a week; the produce is used to make fresh, healthy snacks for students in afterschool programs. During holidays and the summer break the produce is delivered to the local Salvation Army kitchen.

California

- A Simple Gesture is a door-to-door food collection program that will provide a steady supply of food to help feed the hungry in the communities of Paradise (population 26,551) and Magalia, California (population 11,310).
- The <u>California Association of Food Banks</u> (CAFB) represents <u>over 40 food banks</u> throughout the state. CAFB's <u>Farm to Family program</u> works with farmers, ranchers, packers and shippers to get surplus farm products from the field to food banks throughout the state. Farmers may donate product directly to CAFB or receive a modest reimbursement that helps cover harvest and pack out costs. Through this effort, food recipients get nutritious vegetables, fruit, grains, dairy, eggs and meat; food banks receive a variety of healthful products delivered regularly; and, farmers have a market for excess product.
- <u>CalRecycle</u> publishes a Food Bank & Food Recovery Organizations List.
- <u>Chefs to End Hunger</u> partners with LA & SF Specialty to provide businesses with kits containing delivery boxes, pads and aluminum pans to fill with donation food. Once the kit is filled and packed, they can be given to a Specialty Bakery Driver where the boxes will be consolidated and donated to a food bank.
- <u>Copia</u> is a tech-enabled food recovery company using a web and mobile platform it instantly matches businesses and events with surplus food to organizations that serve those in need. Copia picks up and delivers the food to local shelters, after school programs, and other nonprofits.
- <u>Donate Don't Dump</u> a youth-powered, teen run non-profit encouraging grocers and food companies to donate their surplus or short dated food.
- ExtraFood.org in Marin County picks up excess fresh food from organizations and delivers it immediately to nonprofits serving Marin's most vulnerable people.
- ezCater has an Office Hero's Guide to Leftovers for caterers and those who hire them.
- <u>Food Finders</u> links donated food to pantries and shelters in order to bridge the hunger gap in our communities throughout Los Angeles, Orange County, and beyond.
- <u>Food Forward</u> rescues surplus produce from fruit trees, farmers' markets, and the Los Angeles Wholesale Produce Market; and donates them across eight counties in Southern California.
- <u>Food Rescue</u> is a Vallejo based organization that recovers food from the Vallejo Farmers' Market. The website includes information for volunteers, donors and the community.
- Food Shift works with communities, businesses, and governments to strategize long-term sustainable solutions to reduce food waste and build more resilient communities. Its website contains <u>resources</u>, including <u>Food Donation Guidelines</u> and videos. The organization conducted <u>A Case Study from Santa Clara County</u> which includes research into food recovery in the county and tips for ways to make food recovery more efficient, equitable, and sustainable.
- <u>Fresno Metro Ministry Food Rescue Case Study</u> tells the story of a group of students and volunteers, who, with financial assistance from CalRecycle, rescue fresh, healthy food for quick delivery to communities in the Fresno area.

- <u>Hidden Harvest</u> is a Coachella based nonprofit organization that has been deemed a "blue chip investment" because of its program that employs the working poor at a livable wage to glean from local farms and orchards. Gleaned food is distributed to needy seniors, children, after school programs, food banks, and pantries. The website provides information for donors, food recipients, and others.
- The Food Recovery Network of California has worked to establish food recovery programs at California State University, Fresno; California State University, Northridge; Claremont McKenna College; Loyola Marymount University; Occidental College; Orange Coast College; Pepperdine University; Pitzer College; Point Loma Nazarene University; Pomona College; Santa Clara University; San Diego State University; San Francisco State University; Scripps College; UC Davis; UC Los Angeles; UC San Diego; UC Santa Cruz; University Of The Pacific; University Of San Francisco; University Of Southern California; West Hills College Lemoore; and, Whittier College.
- <u>Food Runners</u> of San Francisco picks up and delivers perishable/prepared food the same day to feed the hungry.
- <u>Peninsula Food Runners</u> picks up excess fresh food from organizations in San Mateo/Santa Clara Counties and provides matches to recipients via email with the mobile app <u>Chowmatch</u>.
- <u>Sonoma Food Runners</u> collects quality, donated perishable and prepared foods by appointment which volunteers distribute throughout the community to those in need.
- <u>Waste No Food</u> is a nonprofit that provides a web-based "marketplace" connecting food service companies with excess food to qualified charities that work with the needy. Farms, restaurants, cafeterias, hotels and grocery stores post excess food on the organization's website. Registered organizations can view what is available locally and confirm with transactions online to secure food. The food access is based on location. The organizations are responsible for all transportation and food handling.
- White Pony Express picks up and delivers perishable/prepared food the same day to feed the hungry in Contra Costa County.
- <u>Urban Harvester's Food Recovery Program</u> annually connects more than 25,000 meals from participating food donors to its network of local non-profit community agencies.

Colorado

 The <u>Food Rescue Alliance</u>, a project of <u>Boulder Food Rescue</u>, facilitates grass roots food recovery and movement-building around ending food waste and engaging in food justice in the Rocky Mountain region and around the country. The project entails a peer-learning network between food recovery organizations to share information, technology, and resources to develop innovative models of food recovery.



- The <u>Food Recovery Network of Colorado</u> has worked to establish food recovery programs at the <u>Colorado</u> Mesa University; Colorado Mountain College- Steamboat Springs; and, University of Denver.
- Members of the <u>Food Rescue Alliance</u> participate in just-in-time food rescue to redirect perishable foods directly to shelters and soup kitchens. Its <u>Food Rescue Robot</u> is a web-application for tracking just-in-time food rescue.
- <u>Fresh Food Connect</u> (FFC) utilizes a web-app to connect people with excess garden produce with an FFC team who with will pick up the produce on bicycles and then distribute it in local neighborhoods facing food insecurity.
- Among the services offered by <u>Hunger Free Colorado</u> is the Hunger Free Hotline, which connects people facing food insecurity with food programs, food banks, and benefits such as food stamps.
- The <u>La Puente Food Bank Network</u>, consisting of 13 food banks located throughout the San Luis Valley, provides nutrient dense perishable and nonperishable food options to anyone in need.
- <u>We Don't Waste</u> sources surplus food from venues, events, caterers, restaurants, sports franchises, and other major food distributors and delivers it to community-based non-profit agencies in the Denver-Metro area, up and down the Front Range, and as far as the Pine Ridge Indian Reservation in South Dakota.

Connecticut

- The <u>Connecticut Food Bank</u> serves six Connecticut counties around the state. It works through a network of food aid partners and programs including food pantries, soup kitchens, emergency shelters, residential programs and day programs serving adults and children. Food donations come from a number of food industry partners large and farmers. The organization sponsors several programs, including the Kids' BackPack Program which provides children with a backpack of nutritious food. The Connecticut Food Bank Mobile Pantry strives to address areas of Connecticut considered "food deserts" and assist people who face transportation barriers by bringing donated food to their neighborhood. Its GROW! Up With Good Nutrition program provides nutritional food for low-income households with children enrolled in early childhood, pre-school daycare, Head Start programs, and elementary schools.
- The <u>Food Recovery Network of Connecticut</u> has worked to establish food recovery programs at the Fairfield University; Trinity College; and, the University of Bridgeport.
- <u>Foodshare</u> has been helping to end hunger for more than 35 years. As a regional foodbank serving the
 greater Hartford it collects food donations, including produce, from grocers and restaurants and
 distributes them to 300 food pantries, community kitchens, homeless shelters, and other partner
 programs.
- Mohegan Sun Casino and Resort in Uncasville conducted a waste stream audit and found that 37.5% of its
 waste stream was food scraps. The casino now collects around 1,000 tons/year of food scraps and sends
 them to a local pig farm. More than 50 tons a year of cooking grease is sold for biofuel and animal feed.
 The casino has reduced its waste by 1800 tons per year.

Delaware

 The <u>Food Recovery Network of Delaware</u> has worked to establish food recovery programs at the University of Delaware.

Florida

- <u>CROS Ministries Gleaning Program</u> is a nonprofit organization that runs a program to glean surplus produce from local farms for distribution to the food insecure through the <u>Palm Beach County Food Bank</u>.
- <u>Destin Harvest</u> employs a fleet of refrigerated trucks to harvest high volume food donations from local grocery stores, restaurants, and wholesalers. Same day, free deliveries are made to over 40 active feeding programs in Okaloosa and Walton County.
- <u>Farm Share</u> operates as a large-scale food bank servicing the entire state of Florida from three packinghouses across the state and offices at two state farmers markets.
- <u>Feeding Florida</u> unites 14 member food banks to provide a healthy, adequate, and consistent food supply to every community every day.
- Florida Department of Agriculture has compiled a Food Recovery Resource Guide (available for download) which provides guidance as well as a comprehensive list of food recovery organizations.
- The <u>Food Recovery Network of Florida</u> has worked to establish food recovery programs at the <u>Broward College</u>; <u>Eckerd College</u>; <u>Florida State University</u>; <u>University of North Florida</u>; <u>University of South Florida</u>, <u>St. Petersburg</u>; <u>University of Tampa</u>.
- <u>Transition Sarasota</u> runs the Suncoast Gleaning Project, which harvests surplus produce from local farms for the food insecure.

Georgia

- Atlanta Community Food Bank works with more than 600 nonprofit partners to distribute over 60 million meals to more than 755,000 people in 29 counties across metro Atlanta and north Georgia.
- <u>Concrete Jungle</u> gleans fruit and nuts from trees throughout Atlanta and distributes to the food insecure through its partner organizations.

- The <u>Food Recovery Network of Georgia</u> has worked to establish food recovery programs at <u>Georgia State University</u> and <u>Oxford College Of Emory University</u>.
- <u>Food Well Alliance</u> provides access to capacity-building resources and makes strategic investments in local food organizations that are working to put healthy, locally-grown food to individuals in need.
- An outgrowth of a grower's association established in the 1970s, <u>Georgia Organics</u> is a member supported, non-profit organization connecting organic food from Georgia farms to Georgia families. The organization also hosts an informative blog, <u>The Daily Dirt</u>.
- The <u>Second Harvest of South Georgia</u> serves rural communities throughout southern Georgia. Its <u>Product Recovery Program</u> collects food from food donors across South Georgia including retailers, wholesalers, processors, and distributors. The organization effectively leverages the food recovery options of urban areas to meet the service needs of rural and small towns. Farm to Family program, The organization also works with produce growers and distributors to donate perishable fruits and vegetables that would otherwise be discarded.
- <u>Second Helpings Atlanta</u> works throughout the Atlanta-metropolitan area rescuing surplus food and delivering it to those in need.
- The <u>Southeast Recycling Development Council</u> works with industry, government, and non-government organizations to promote sustainable recycling in the Southeast. It sponsored a <u>2015 Food Recovery</u> <u>Summit</u>.

Hawaii

- Aloha Harvest, a nonprofit organization established in 1999, is the only food rescue organization serving Hawaii. The organization collects quality perishable and non-perishable food from nearly 300 active donors, including restaurants, caterers, government facilities, hotels, and food distributors. Collected food is distributed on the same day, free of charge, to more than 180 non-profit agencies.
- The <u>Food Recovery Network of Hawaii</u> has worked to establish food recovery programs at <u>University of</u> Hawaii at Manoa.
- The <u>Hawaii Food Bank</u> rescues perishable and nonperishable food from <u>food industry donors</u> for distribution around the state to those in need.

Idaho

- During the growing season, <u>Peaceful Belly Farm</u>, in Garden City (population 10,972), participates in a weekly <u>gleaning program</u> with the <u>Idaho Food Bank</u>. Over the course of the season, volunteers will collect thousands of pounds of fresh produce to distribute to those in need.
- The <u>Food Recovery Network of Idaho</u> has worked to establish food recovery programs at <u>Boise State</u> University.
- <u>Idaho Foodbank</u> distributes food throughout the state. Its <u>Food Rescue Program</u> is a partnership with grocers statewide that provides an opportunity for The Idaho Foodbank to distribute nutritious and often perishable food to individuals in need, while also preventing unnecessary waste.
- The mission of <u>Treasure Valley Harvest</u> is to help connect people to help one another and to minimize
 food waste in the Treasure Valley. The organization connects people who have surplus produce with those
 who will harvest.

Illinois

- The <u>Food Circle</u> recovers fresh produce from Chicago area grocery stores and distributes it to community members in need.
- The <u>Food Recovery Network of Illinois</u> has worked to establish food recovery programs at <u>Elmhurst</u>
 <u>College</u>; <u>Illinois State University</u>; <u>Knox College</u>; <u>Loyola University of Chicago</u>; <u>Northern Illinois University</u>;
 <u>Parkland Community College</u>; <u>Quincy University</u>; and, <u>University Of Illinois Chicago</u>.

- <u>I Grow Chicago</u> has established over 50 community gardens and worked with over 1,000 local residents. Through a partnership with Growing Home, it employs a local resident as Master Gardener, and provides educational opportunities to youth and children in its summer camp.
- Northern Illinois Food Bank provides food through a network of 800 food pantries, soup kitchens, shelters, youth and senior centers, and has a number of other direct distribution programs to assist hungry neighbors.

Indiana

- <u>Community Keepers</u> partners with restaurants, grocery stores, and other organizations to collect and distribute food and services to those in need.
- The <u>Food Recovery Network of Indiana</u> has worked to establish food recovery programs at <u>Butler</u> <u>University Earlham College; Saint Mary's College; Taylor University; and, the <u>University of Indianapolis</u>.</u>
- <u>Hoosier Hills Food Bank's</u> Garden & Gleaning programs provide locally grown, fresh fruits and vegetables for free distribution to those in need of emergency food assistance.
- <u>Indy Hunger Network</u> is a coalition of representatives from leading anti-hunger organizations, both public and private, as well as community volunteers.
- Mother Hubbard's Cupboard strives to increase access to healthy food for all people in need in ways that
 cultivate dignity, self-sufficiency, and community. They accept food donations, including produce and it
 manages two community gardens to grow produce for distribution through its pantry. Spoiled produce
 from the pantry is composted and used on the community gardens. The organization also provides
 opportunities to build self-reliance by sponsoring workshops to teach gardening and composting skills to
 foster home gardening.
- <u>Second Helpings</u> addresses four problems—food waste, hunger, job training, and sourcing skilled labor for
 the local food service industry. Each day Second Helpings volunteers and staff <u>rescue</u> prepared and
 perishable food from wholesalers, retailers and restaurants. The rescued food is prepared into hot,
 nutritious meals for distribution through 70 social service agencies for those in need. The Second Helpings
 <u>Culinary Job Training</u> program trains disadvantaged adults for careers in the food service industry as cooks,
 executive chefs, business owners and culinary instructors.
- The nonprofit <u>State Association of Food Banks</u> is a network of 11 Feeding America food banks serving the entire state.

Iowa

- The <u>Food Recovery Network of Iowa</u> has worked to establish food recovery programs at <u>Cornell College</u>;
 <u>Drake University</u>; <u>Grinnell College</u>; <u>Iowa State University</u>; and, <u>Simpson College</u>.
- Northeast Iowa Food Bank operates a network of anti-hunger agencies and volunteers using mobile pantries to provide food to rural residents in Northeast Iowa.

Kansas

• The <u>Food Recovery Network of Kansas</u> has worked to establish food recovery programs at <u>Kansas State University</u> and <u>Wichita State University</u>.

Kentucky

- The <u>Food Recovery Network of Kentucky</u> has worked to establish food recovery programs at <u>Bellarmine University</u>.
- Through a network of more than 200 partner agencies, <u>Feeding America</u>, <u>Kentucky's Heartland</u> acquires and distributes donated food, grocery items and government commodities throughout almost 16,000 square miles of Kentucky.
- <u>GleanKY</u> is a nonprofit organization that runs gleaning operations to collect surplus food from farms, farmers markets, and grocery stores for delivery to partner recipient organizations throughout the state.

- The seven member food banks of <u>Kentucky Association of Food Banks</u> serve all 120 Kentucky counties in partnership with a network of over 800 local food pantries and shelters. In 2016, members distributed 69.9 million pounds of food and grocery products — enough for 58,000,000 meals.
- <u>Kentucky InterFaith Power and Light</u> operated Harvesting Hands, which gleans surplus produce from farmers markets and farms.
- <u>Seedleaf</u> works to increase the amount, affordability, nutritional value and sustainability of food available to people at risk of hunger in central Kentucky by growing, recycling and sharing food.

Louisiana

- The <u>Community Kitchen Collective</u> brings people together who love to grow, gather, cook, and serve food, with the goals of reducing waste food while fighting hunger.
- The <u>Food Recovery Network of Louisiana</u> has worked to establish food recovery programs at <u>Dillard</u> <u>University</u>; <u>Louisiana State University</u>; <u>Tulane University</u>; and the <u>University of Louisiana Lafayette</u>.
- The <u>Louisiana Food Bank Association</u> was created by the five regional food banks within the state to support their collaborative efforts to accomplish statewide policy, advocacy, and food and fundraising objectives.
- Since 2011, the <u>New Orleans Fruit Project</u> has harvested more than 30,000 pounds of fruit from the Greater New Orleans area, which is donated to organizations that feed those in need.
- Second Harvest Food Bank is the largest charitable anti-hunger network in South Louisiana. Its mission is to end hunger by providing food access, advocacy, education, and disaster response. It provides food to 582 partners and programs across 23 parishes in South Louisiana. The organization works with manufacturers, distributors, and processors to receive large food donations and a Retail Store Donation Program. Its Fruit Tree Project is a volunteer-driven program that collects fruit and produce from local residents. The unique project focuses on picking fruit primarily from the yards of individual homeowners with fewer than 10 fruit trees. Through its Fresh Food Initiative collects donated fresh produce from famers and growers.

Maine

- <u>Central Maine Gleaners Group</u>, based in Winthrop (population 6,092), is a volunteer group formed in June 2015 to glean after-harvest food for local food pantries and the area's soup kitchen.
- Good Shepherd Food Bank works to address food insecurity in all 16 counties in Maine. The organization hosts a locator map of hunger relief agencies throughout Maine. It accepts donations of dry, refrigerated, and frozen products from businesses, including produce, dairy, and fresh and frozen meat. Its statewide Mainers Feeding Mainers works with farmers and gardeners to donate excess produce.
- <u>Healthy Acadia</u> works on community health initiatives that help Hancock and Washington Counties thrive. Its goal is to empower people and organizations to build healthy communities. In partnership with the University of Maine Cooperative Extension, the <u>Downeast Gleaning Initiative</u> addresses food insecurity in the region by coordinating gleaning opportunities. Through the Initiative new relationships with more than thirty farms, as well as orchard growers, farmers markets, and other food producers have been forged. The volunteer-based Initiative has engaged over 200 community volunteers to collect food that would otherwise go to waste. Healthy Acadia developed a <u>Guide to Gleaning: A Surplus and Seconds Management Best Practice</u> and a pamphlet on <u>Food Safety for Gleaning Volunteers</u>.
- The <u>Maine Chapter of the Food Recovery Coalition</u> has worked to establish food recovery programs at <u>Colby College</u>; <u>Southern Maine Community College</u>; <u>University of Maine</u>; <u>University of Maine at Farmington</u>; <u>University of Maine at Machias</u>; <u>and</u>, <u>University of New England</u>.
- Maine Gleaning Network
 strives to bring together gleaning organizations from around Maine to
 strengthen the presence and collaboration of on-farm food surplus rescue efforts. It was founded as a
 resource to the expanding gleaning activities across the state and to support fund development,
 infrastructure, and volunteer systems to rescue food from farms that would otherwise not make it to

table. Its members include Downeast Gleaning Initiative (Hancock and Washington Counties), UMaine Cooperative Extension Harvest for Hunger Gleaners, Merrymeeting Gleaners, Cumberland County Gleaning Initiative, Central Maine Area Gleaners, Healthy Communities of the Capital Area, Unity Food Hub Gleaners, and Lincoln County Gleaners.

- Merrymeeting Food Council is a network of farmers, non-profits, businesses, government, and individuals
 working together in Maine to advance a thriving, resilient food system. The Council's Food Security
 Workgroup implemented is a gleaning program—Merrymeeting Gleaners—to support regional food
 security organizations through harvesting surplus food from farms and the local farmers market.
- The <u>Natural Resources Council of Maine</u> is a nonprofit membership organization that takes action to protect, restore, and conserve Maine's environment. Its <u>Food Waste</u> webpage offers tips on reducing food waste, links to gleaning and recovery organizations, and composting information.
- Northern Girl provides value-added processing of vegetables sourced from family farms of Maine. Their
 premise is to sell premium of each partner farmer's crops on the fresh market, and process the culls and
 surplus to sell to local institutions, retailers, food producers, and farm stands. Their goal is to bring
 opportunity to growers in Maine's largest and most remote county by building added-value for the
 products of a multitude of small farms.
- The <u>University of Maine Cooperative Extension</u> has hosts a <u>Maine Harvest for Hunger</u> gleaning program in Cumberland County. Farmers and fruit growers support the effort by contacting the UMaine Extension Cumberland County office when they have an opportunity for Maine Harvest for Hunger volunteers to come to gather the remaining, unharvested produce for donation to local food pantries.
- Wayside Food Programs recovers edible food from grocery stores, wholesalers, farms, shipping companies, and other food establishments that is not sellable for cosmetic reasons, packaging imperfections, and/or inventory levels. When donated to Wayside, the food is redirected to soup kitchens, food pantries, and other social service agencies. Operating as a hub within a network of existing food distribution organizations, Wayside is able to assist smaller agencies which receive donations that exceed their need and/or storage capacity, and work to facilitate the redistribution to others, reducing waste and duplication of effort.

Maryland

- <u>Celestial Manna</u>, in Derwood (unincorporated, population 15,600), is a nonprofit organization started in 1986. Its primary mission is to feed the hungry in Maryland and northern Virginia by providing them with free food which is locally donated. The organization rescues perishable and nonperishable food from: farms, packing & distribution centers, grocery & other retailers, restaurants, food service providers, farmers' markets, urban orchards, and events.
- <u>Community Food Rescue</u> (CFR) is the coordinated food recovery network of Montgomery County. The
 organization uses a free food matching web tool and companion mobile app, ChowMatch, to match edible
 food that local businesses would have thrown away, to food assistance organizations that serve people
 who are food insecure, and then alerts volunteer food runners who pick up and deliver the food. Matches
 are based on donors' and recipient organizations' profiles which include the type and quantity of food they
 donate or need, proximity, and timing.
- The <u>Food Recovery Network of Maryland</u> has worked to establish food recovery programs at <u>Frostburg State University</u>; <u>Goucher College</u>; <u>Towson University</u>; <u>University Of Maryland</u>, <u>Baltimore County</u>; <u>University Of Maryland</u>, <u>College Park</u>; and, <u>Washington College</u>.
- Hungry Harvest rescues fruits and vegetables that are freshly harvested, but would otherwise be discarded
 due to aesthetic imperfections ("ugly produce") or simply due to grower surpluses. Hungry Harvest sources
 produce from farms around the Mid-Atlantic region and Florida, packs the items into boxes for weekly and
 bi-weekly delivery to customers in Maryland, DC, Northern Virginia, Philly, South Jersey, and South Florida.
 Hungry Harvest also make delivers its sourced produce at reduced-cost and through donations to local
 food banks.

- <u>Nourish Now</u> works to bring food security to families, children, and seniors in need in Montgomery
 County. Through food recovery, the organization works to solve two major social issues: hunger and food
 waste. Nourish Now gleans thousands of pounds of fresh food each day and separates the edible food
 from what is not fit for human consumption. The spoiled food is then donated to its farming partners who
 use it for animal feed or compost it.
- The <u>Southern Maryland Agricultural Development Commission</u> (SMADC) supports farms and the future of agriculture in the region. Its <u>Hub and Spoke Program</u> provides farmers with a means to sell or donate produce which would normally go to waste; the surplus produce is donated to organizations serving those in need.

Massachusetts

- The Daily Table is a nonprofit retail store that offers the community a selection of affordable produce, bread, dairy, and grocery items, including "grab-n-go" ready to eat meals. The Daily Table works with a network of growers, supermarkets, manufacturers, and other suppliers who donate their excess, healthy food, or provide the organization with special buying opportunities. The Daily Table can sell food and produce at lower prices, while working to both reduce food waste and make choosing and eating healthy foods more convenient and affordable for its customers.
- <u>Fair Foods</u> sources surplus and blemished produce from distributors. The produce is donated to food pantries and homeless shelters. The organization also has a <u>Two Dollar a Bag program</u> which provides large bags of mixed fresh produce for a suggested donation of two dollars to meet emergency food needs.
- The Foodbank of Western Massachusetts distributes donated food to the hungry in rural Western Mass.
- <u>Food for Free</u> rescues fresh fruits and vegetables food from farms, farmers' markets, CSAs, wholesale distributors and grocery stores. The nonprofit organization distributes the rescued food within the local emergency food system and delivers food directly to isolated seniors and people with disabilities.
- The <u>Food Recovery Network of Massachusetts</u> has worked to establish food recovery programs at
 <u>Assumption College</u>; <u>Becker College</u>; <u>Brandeis University</u>; <u>College of the Holy Cross</u>; <u>Framingham State
 University</u>; <u>Gordon College</u>; <u>Nichols College</u>; <u>Olin College of Engineering</u>; <u>Smith College</u>; <u>UMass Amherst</u>;
 and, <u>Worcester Polytechnic institute</u>.
- <u>Lovin Spoonfuls</u> picks up fresh food that would otherwise be thrown away from grocery stores, produce wholesalers, farms, and farmers' markets, and distributes it to community non-profits in the Greater Boston area.
- Massachusetts Food Pantries maintains a list of food pantries and food banks throughout the State.
- Rachel's Table is based in Springfield, Massachusetts and runs a gleaning project called Helping Harvest, which encourages youth and adult volunteers to participate in on-farm gleaning and distribution of food to pantries, shelters, soup kitchens and food shelves in Western Massachusetts.

Michigan

- The <u>Food Bank Council of Michigan</u> partners with farmers, non-profits, foundations, corporations, government, and individuals in order to support the work of seven regional food banks and improve access to healthy food for those in need.
- <u>Food Gatherers</u> partners with 150 non-profit agencies and programs providing direct food assistance in the form of hot meals, nutritious snacks, and emergency groceries to low-income adults, seniors and children in Washtenaw County.
- The Food Recovery Network of Michigan has worked to establish food recovery programs at Alma College
- Aquinas College; Calvin College; Cornerstone University; Eastern Michigan University; Kalamazoo College;
 Madonna University; Northwood University; Schoolcraft College; University of Michigan; University of
 Michigan Dearborn; University of michigan Flint; and, Wayne State University.

- The <u>Gleaners Community Food Bank of Southern Michigan</u> operates five distribution centers in Wayne,
 Oakland, Macomb, Livingston and Monroe counties and provides food to 534 partner soup kitchens, food pantries, shelters and other agencies throughout southeastern Michigan.
- Greater Lansing Food Bank provides emergency food to individuals and families in need throughout mid-Michigan.
- Located in a Grand Rapids neighborhood with over 45% of the population living below the poverty line,
 <u>Heartside Gleaning Initiative</u> supplies fresh healthy produce gleaned from farmer's donations at area
 farmers' markets, to soup kitchens, food pantries, and low-income individuals enabling them to provide
 healthy options for meals.
- <u>West Michigan Food Bank</u> distributes reclaimed food to pantries, shelters, after-school programs, and other anti-hunger agencies in 40 Michigan counties.

Minnesota

- Gardening Matters supports community gardens in donating produce to local food shelves.
- Mill City Farmers Market's <u>Greens for Good</u> program collects excess produce from farmers at the end of the market.
- <u>The Food Group</u> is a full-service food bank with over 200 hunger relief partners statewide providing free food, access to bulk food purchasing, and formalized food drive programs.
- The <u>Food Recovery Network of Minnesota</u> has worked to establish food recovery programs at <u>Bemidji State University</u>; <u>Carleton College</u>; <u>Macalester College</u>; <u>St. Olaf College</u>; <u>University of Minnesota</u>, <u>Twin Cities</u>; and the University of St. Thomas.
- In 2016, <u>Second Harvest Heartland</u> delivered more than 80 million meals to nearly 1,000 food shelves, pantries and other partner programs serving 59 counties in Minnesota and western Wisconsin.

Mississippi

 The <u>Food Recovery Network of Mississippi</u> has worked to establish food recovery programs at the <u>University of Mississippi</u>.

Missouri

• The <u>Food Recovery Network of Missouri</u> has worked to establish food recovery programs at the <u>Missouri State University</u>; <u>Southeast Missouri State University</u>; <u>University of Missouri</u>; <u>University of Missouri Kansas City (Hospital Hill)</u>; and, Washington University in St. Louis.

Montana

- In 2016, the <u>Gallatin Valley Food Bank</u> rescued 1,086,221 pounds of food from area institutions for distribution to households served by its three locations.
- The Bears & Apples program of the <u>Great Bear Foundation</u> gleans apples in the Missoula region, both to discourage bears from entering neighborhoods and to provide the harvested apples and cider to food insecure residents.
- The <u>Montana Food Bank Network</u> distributes approximately eight million pounds of food per year through
 a network of over 150 Partner Agencies. The agency works with local food producers to receive donations
 of surplus food. Its <u>Hunters Against Hunger</u> promotes the donation of legally harvested big game during
 the hunting season.

Nebraska

• The <u>University of Nebraska at Kearney</u> (UNK) sponsors <u>Project Clean Plate</u>. The event, which takes place twice a semester, is a UNK Dining Services campaign held in conjunction with the campus Residence Hall Association to reduce food waste and bring awareness to world hunger and poverty.

Nevada

- <u>Food Bank of Northern Nevada</u> rescues short-dated and other surplus food from retailers, manufacturers, and farmers for distribution around northern Nevada.
- <u>Three Square</u> rescues "past retail ready" or "salable" food from retailers, wholesale distributors, and from convention and trade shows in the Vegas market. The organization serves four counties in Southern Nevada. Three Square recycles all cardboard and plastic and reduces landfill waste even further by donating food that is past its consumable life to animal farms in our area.

New Hampshire

- The <u>Food Recovery Network of New Hampshire</u> has worked to establish food recovery programs at <u>Colby-Sawyer College</u>; Dartmouth College; Plymouth State University; and, Saint Anselm College.
- New Hampshire Food Bank has a Fresh Rescue Program where it works in partnership with supermarkets across the state to collect, fresh meat and poultry that would otherwise be disposed. It's unique Recipe for Success Culinary Job Training program helps trainees gain the skills and experience necessary to seek employment in the food service industry. Most of the training time in the program involves hands-on experience in the kitchen preparing meals for the registered agencies of the Food Bank, including providing at least 100 meals per day for the Manchester Boys & Girls Club and producing meals in bulk to be frozen for use by its registered agencies.

New Jersey

• The <u>Food Recovery Network of New Jersey</u> has worked to establish food recovery programs at <u>Monmouth University</u>; <u>Rowan University</u>; <u>Seton Hall University</u>; and <u>Stockton University</u>.

New Mexico

- The <u>Food Recovery Network of New Mexico</u> has worked to establish food recovery programs at <u>New Mexico</u> State University; and, the University Of New Mexico.
- The <u>New Mexico Association of Food Banks</u> is a collaborative organization consisting of five member food banks that distribute fresh produce through a statewide network of more than 500 agencies.
- <u>Roadrunner Food Bank of New Mexico</u>, the largest Food Bank in the state, distributes more than 30 million pounds of food every year to a network of hundreds of partner agencies and four regional food banks.
- <u>Seed2Need</u> plants gardens in Corrales to generate fresh produce for local food pantries and soup kitchens. The organization donated over 70,000 pounds of produce to 17 food pantries and soup kitchens in Bernalillo and Sandoval counties in 2015.

New York

• Cornell Cooperative Extension (CCE) coordinates field gleanings in Orange County. As with farms around the country, thousands of pounds of produce are left in fields in Orange County because it is not economical for farmers to harvest them. Some of this produce is blemished or not cosmetically attractive and has no or limited no market value. With funding assistance from the NYS Department of Health Hunger Prevention and Nutrition Assistance Program and building collaborations between community organizations and individual agribusinesses, CCE is able to have a Food Security Coordinator to manage the Gleaning Program. Through the program, volunteers harvest or repackage already existing product, and then distribute it to the soup kitchens, food pantries, and other organizations for distribution to those in need. While the program is Orange County-based, they also work with Dutchess Outreach, which provides a hub to gleaning and distribution in the Dutchess County. In 2016, 350,000 pounds of fruits and produce were gleaned from farms mostly in Orange County.

² Email communication from Stiles R. Najac, Food Security Coordinator, Cornell Cooperative Extension Orange County, June 30, 2017.

- Dutchess Outreach provides the most meals in a year of any soup kitchen in New York State. The organization has served Dutchess County for more than 40 years, with a <u>food pantry</u> and <u>The Lunch Box</u>, which provides free, hot lunch and dinner meals to anyone in need. Its newest program, the <u>Poughkeepsie Plenty Fresh Market</u>, provides the community access to affordable, fresh, locally farmed foods. The Dutchess Outreach Fresh Market distributes local, farm fresh fruits and vegetables to residents of the City of Poughkeepsie (population 30,500). This mobile market operates from June-November making stops throughout Poughkeepsie and accepts all forms of payment, including food assistance benefits like SNAP/EBT and WIC Farmers' Market Nutrition Program. The organization also operates a farm in center of Poughkeepsie in order to provide greater access to more nutritious foods, reduce food insecurity, and increase the overall health and vitality of the community by building a more "local, sustainable, and equitable food system."
- The <u>Food Recovery Network of New York</u> has worked to establish food recovery programs at <u>Bard College</u>; <u>Cornell University</u>; <u>Fordham University</u>; <u>Marist College</u>; <u>Mohawk Valley Community College</u>; <u>The New School</u>; <u>New York University</u>; <u>Rochester Institute of Technology</u>; <u>Russell Sage College</u>; <u>Sage College of Albany</u>; <u>St. John's University</u>; <u>SUNY Binghamton</u>; <u>SUNY Plattsburgh</u>; <u>Syracuse University/SUNY Environmental Science and Forestry</u>; <u>SUNY Polytechnic Institute Of Technology</u>; <u>University at Buffalo</u>; University of Rochester; and, Wagner College.
- The <u>Friendship Donations Network</u> (FDN) in Ithaca, New York. FDN rescues fresh, nutritious food that would otherwise be thrown away from stores and farms and redistributes it to neighbors in need. FDN's <u>Neighborhood Food Hubs</u> program received 8,268 pounds of fresh produce donated by household volunteers in 2015. Through the "hubs," residents can donate excess produce from gardens, orchards, or CSAs (community supported agriculture).



- In 2016, the <u>Hudson Valley Regional Council</u> partnered with Rescuing Leftover Cuisine Poughkeepsie,
 Ulster County Resource Recovery Agency, and the Dutchess County Division of Solid Waste to advance
 wasted food reduction and food recovery efforts in Dutchess and Ulster Counties. The project is designed
 to increase awareness about food waste, food insecurity, and opportunities for food recovery and food
 donation.
- Master Food Preserver Certification trainings, such as those offered through Cornell Cooperative
 Extension Agencies, present an excellent opportunity for farmers and gleaning organizations to use surplus
 product produce that they can't otherwise sell.
- The <u>New York State Food System Sustainability Clearinghouse</u> is hosted by the NYS Pollution Prevention Institute contains resources for non-manufacturing businesses involved in food retail or service, including colleges and universities, hotels, hospitals and nursing homes, restaurants, k-12 schools, supermarkets and grocery stores, entertainment facilities, and wholesale/distribution centers on <u>food donation</u>; the website also has a list of NYS Food Banks.
- <u>Second Chance Foods, Inc.</u> is a nonprofit organization dedicated to rescuing unsold, un-served, and
 aesthetically imperfect food and distributing it in an effort to reduce food waste and food insecurity. The
 organization collects food from farms, grocery stores, restaurants and other purveyors in the Hudson
 Valley Region and distributes it directly to community outreach organizations that provide meals to people
 in need. The organization also provides programs to raise awareness about food waste, nutrition, and
 sustainability on a local and global level.
- <u>UlsterCorps</u> initiates and supports collaborations that seek to "educate, inspire, and explore causes and solutions to some of the challenges" facing people in Ulster County. <u>The Hunger Project</u> is an UlsterCorp initiative that brings together a coalition of local workers and volunteers from community gardens and farms, gleaners, processors, storage facilities, food pantries and soup kitchens, Ulster County Department of Transportation and BOCES New Vision Health Career Exploration Program, to make connections that utilize existing resources in the region more effectively and feed more people in their communities. In collaboration with the Rondout Valley Growers Association's <u>Farm to Food Pantry Program</u> and Family of

Woodstock, UlsterCorps volunteers assist with weekly gleanings at local farms throughout the growing season. Volunteers also assist in processing and transporting food from local farms to local food pantries and soup kitchens.

Westchester County's Department of Environmental Facilities has held two Food Rescue Forums. The first targeted schools and colleges. The second included all food and hospitality-related industries and included representatives from hotels, conference centers, schools, restaurants, supermarkets, hospitals and institutions and other interested parties The Food Rescue Forums were a cooperative effort with the Food Bank for Westchester and Rock and Wrap It Up! Inc.

North Carolina

- The <u>Food Bank of Central and Eastern North Carolina</u> serves 34 counties throughout North Carolina. Their Mobile Food Pantry program works with local partners to bring three million pounds of food to rural communities every year.
- The <u>Food Recovery Network of North Carolina</u> has worked to establish food recovery programs
 at <u>Belmont Abbey College</u>; <u>Duke University</u>; <u>High Point University</u>; <u>North Carolina State University</u>; <u>Pfeiffer University</u>; <u>Salem College</u>; <u>University of North Carolina at Chapel Hill</u>; <u>University of North Carolina at Greensboro</u>; and, University of North Carolina at Pembroke.

North Dakota

The <u>Great Plains Food Bank</u> is the state's largest food bank. It partners with a variety of entities, growers, processors, manufacturers, distributors, wholesalers and retailers to supply 84% of the product the Food Bank distributes each year. The Food Bank accepts donations of nonperishable and perishable foods, including surplus produce and "less-than-perfect" produce.

Ohio

- The <u>Akron-Canton Regional Food Bank</u> provides local charities with the tools required to meet the food needs in rural Ohio communities. To build capacity, the food bank partners with others, including Journeys End Ministries in Newcomerstown in Tuscarawas County (population 3,820).
- <u>Community Food Initiatives</u> focuses on gardening, skill building, and feeding those in need in Appalachia Ohio.
- Community Harvest and its partners supply more than 80,000 meals a month in Stark County.
- The <u>Food Recovery Network of Ohio</u> has worked to establish food recovery programs at <u>Bowling Green</u>
 <u>State University</u>; <u>Case Western Reserve University</u>; <u>Denison University</u>; <u>Kent State University</u>; <u>Ohio State University</u>; <u>Ohio Wesleyan University</u>; <u>Shawnee State University</u>; <u>University Of Dayton</u>; and, the <u>University Of Toledo</u>.
- The Ohio Association of Foodbanks assists Ohio's 12 Feeding America foodbanks in providing food and other resources to people in need.
- The <u>Ohio Environmental Protection Agency</u> <u>Food Scraps Recovery Initiative</u> features an extensive list of food banks where excess food can be donated.
- <u>SeaGate Food Bank</u> collects and distributes fresh produce and packaged food to over 400 food pantries, soup kitchens, and programs that feed the hungry in the Toledo region.

Oklahoma

• The <u>Community Food Bank of Eastern Oklahoma</u> distributes food and other grocery items to 450 Partner Programs to 24 counties in eastern Oklahoma. The organization's <u>Retail Store Donation Program</u> works with grocery stores and other food retailers to secure perishable and non-perishable food items for donation. The program's Retail Store Donation Coordinator works one-on-one with store managers and staff to educate on the benefits of donating excess food to the Food Bank and how to properly store, save and donate to the Food Bank.

- The <u>Food Recovery Network of Oklahoma</u> has worked to establish food recovery programs at <u>Southern</u> Nazarene University and the University of Central Oklahoma.
- The <u>Regional Food Bank of Oklahoma</u> is the largest hunger-relief charity in the state. Its <u>Urban Harvest</u> program is a sustainable gardening program that combines agricultural education, fresh food production, community outreach, and ecological conservation (including composting of food scraps).

Oregon

- <u>ACCESS Inc.</u> provides food, housing, warmth, and other essential services to Jackson County's low income children, families, seniors and people with disabilities
- <u>Coastal Harvest</u> provides opportunities for lower income citizens and volunteers to build community food security through gleaning, community gardening, advocacy and other community building activities.
- Food for Oregon is an online tool managed by Oregon Food Bank and Oregon State University Extension Service that allows users to search for community food programs throughout the state, such as gleaning, nutrition, and community gardens and kitchens. The partnership goals are to: 1) Increase Oregonians' food security and their access to local, sustainable food resources; 2) Build connections between Oregonians, their local and regional food system and education and advocacy resources; and, 3) Establish support for and connections between organizations engaged in building a healthy, accessible food system for Oregon. The website contains a searchable database of non-emergency community food programs in Oregon and Southwest Washington. Users of the database can search for programs by County, Program Area, Organization Name, City, Zip Code or a combination of these search criteria.
- Food for Lane County is a nonprofit food bank founded in 1984 and dedicated to eliminating hunger by
 creating access to food. The organization solicits, collects, rescues, grows, prepares, and packages food for
 distribution through a network of more than 150 social service agencies and programs. It provides public
 awareness, education and community advocacy to support its work, including gleaning and community
 gardens.
- The mission of the <u>Food Recovery Network at Willamette University</u> is to fight food waste and hunger in the Willamette Valley by recovering surplus perishable food from our campus and donating it to people in need in our community.
- Fork It Over! is a food recovery program designed to reduce hunger and waste in the Portland metropolitan area by connecting food businesses with food rescue agencies. The program uses an online geo-locator, tool to match food businesses with hunger relief groups at a neighborhood level.
- <u>Linn-Benton Food Share</u> is a nonprofit organization of Community Services Consortium (CSC), the public, and a nonprofit community action agency. It provides multiple services to low-income people across Linn, Benton and Lincoln counties, including operation of a regional food bank which collects, stores, and distributes food, and collaborates with 74 member agencies to bring food directly to those who need it most. The organization also partners with <u>14 gleaning groups</u> located throughout Linn and Benton counties.
- Marion-Polk Food Share is a nonprofit organization servicing Marion and Polk counties.
- <u>Neighbor Impact</u> is a regional food bank in Central Oregon, distributing to more than 40 different sites throughout Crook, Deschutes and Jefferson Counties.
- Oregon Food Bank collects food from farmers, manufacturers, wholesalers, retailers, individuals and
 government sources and distributes it through a Statewide Network of 21 Regional Food Banks and
 approximately 970 partner agencies serving all of Oregon and Clark County, Washington.
- Partners for a Hunger-Free Oregon works with communities to end hunger before it begins.
- The <u>St. Vincent de Paul Food Recovery Program</u> is a partnership between St. Vincent de Paul and large businesses in the greater Portland area to recover over-produced food from cafeterias and restaurants and distribute it to local food pantries.

Pennsylvania

- <u>412Rescue</u> is committed to introducing innovative solutions to implement food recovery in communities. It offers numerous programs including: <u>food rescue</u>; <u>FoodRescueX</u>, a technology platform which matches food donations to the appropriate nonprofits; <u>Hidden Harvest</u> which organizes volunteers to glean fruits and vegetables from public and privately owned trees, orchards, and gardens to provide fresh food options for its nonprofit partners.
- <u>Food Connect</u> uses a free app to connect restaurants, caterers, and event planners who have acceptable surplus food for donation.
- The <u>Food Recovery Network of Pennsylvania</u> has worked to establish food recovery programs at Allegheny College; <u>Drexel University</u>; <u>Indiana University of Pennsylvania</u>; <u>Lafayette College</u>; <u>Lehigh University</u>; <u>Lycoming College</u>; <u>Marywood University</u>; <u>Mercyhurst University</u>; <u>Millersville University of Pennsylvania</u>; <u>Penn State Erie, The Behrend College</u>; <u>Penn State</u>; <u>Saint Joseph's University</u>; <u>Shippensburg University</u>; <u>Susquehanna University</u>; <u>University of Pennsylvania</u>; <u>University of Pittsburgh</u>; <u>University of the Sciences</u>; <u>Villanova University</u>; and, <u>Washington and Jefferson College</u>.
- <u>Second Helping</u> based in Langhorne (population 1,589) runs a food pantry that assists food insecure families in the Neshaminy and Pennsbury School Districts. The organization rescues surplus and short-dated food from farms, restaurants, grocers, and other food service providers.

Rhode Island

• The <u>Food Recovery Network of Rhode Island</u> has worked to establish food recovery programs at <u>Brown University</u>; <u>Providence College</u>; <u>Roger Williams University</u>; and, the <u>University Of Rhode Island</u>.

South Carolina

• The <u>Food Recovery Network of South Carolina</u> has worked to establish food recovery programs at <u>Coastal Carolina University</u> and the <u>University of South Carolina, Columbia</u>.

South Dakota

- In 2016, <u>Feeding South Dakota</u> distributed 13.5 million pounds of food, providing temporary food assistance to approximately 21,000 people every week. The organization partners with food manufacturers and local grocers to receive surplus food.
- The <u>Food Recovery Network of South Dakota</u> has worked to establish food recovery programs at University of South Dakota.
- <u>South Dakota Sportsmen Against Hunger</u> encourages and facilitates donation of wild game meat to individuals in need in South Dakota.

Tennessee

- The <u>Food Recovery Network of Tennessee</u> has worked to establish food recovery programs at <u>Christian</u>
 <u>Brothers University</u>; <u>Lipscomb University</u>; <u>Maryville College</u>; <u>Rhodes College</u>; <u>University of Memphis</u>; and, the University of Tennessee Knoxville.
- The <u>Nashville Food Project</u> is a nonprofit organization whose mission is to bring people together to grow, cook and share nourishing food, with the goals of cultivating community and alleviating hunger in Nashville.
- In partnership with the Natural Resources Defense Council, the <u>Nashville Food Waste Initiative</u> is a pilot project which is working to identify new approaches to reduce wasted and direct more surplus food to people in need. The Initiative has also partnered with the City of Nashville in the <u>Restaurant Food Saver Challenge</u>, to reduce food waste and help relieve hunger by donating wholesome, edible food to local nonprofits in Davidson County.

- <u>Second Harvest Food Bank of East Tennessee</u> is a nonprofit organization that runs the Food Rescue program, which recovers prepared and fresh food from restaurants, schools, grocery stores, farms, and local growers for distribution to the food insecure.
- <u>Tennessee Department of Environment & Conservation</u> (TDEC) dispenses annual Organics Management Grants with priority given to pursuing reductions in wasted food and food waste.

Texas

- The <u>Food Recovery Network of Texas</u> has worked to establish food recovery programs at <u>Lamar University</u>; <u>Texas A&M</u>; <u>Texas Christian University</u>; <u>Texas State University</u>; <u>University of Houston</u>; <u>University of Texas at Austin</u>; and, the <u>University of Texas at Dallas</u>.
- In its three years of existence, <u>FoodSource DFW</u> has given away more than 2.5 million pounds of food. The organization's goal is to make it simple for businesses to donate food and for community members to receive these donations.
- <u>Harvest Project</u> is an organization that recovers surplus produce from produce wholesalers/distributors and redistributes it to people in need around the Dallas area.
- <u>Keep Austin Fed</u> gathers wholesome and nutritious surplus food from commercial kitchens and distributes it to area charities that serve hungry people in need. The group's suppliers include Trader Joe's, Snap Kitchen, and the Coffee Bean & Tea Leaf.
- The <u>San Antonio Food Bank</u> serves 58,000 individuals a week across southwest Texas. The organization works with retailers and farmers to secure excess produce for its <u>Fresh Produce Program</u>. Through its <u>Second Servings Program</u>, prepared and perishable food is collected from restaurants, hotels, caterers, country clubs, corporate cafeterias and hospitals to distribute immediately to the hungry residing in an emergency shelter.

Utah

- In 2016, <u>Utah Food Bank</u> distributed 31.8 million meals via a statewide network of 141 partner agencies. Its Grocery Rescue program partnered with 225 retailers to provide 14 million pounds of food to the hungry in 2016.
- The <u>Food Recovery Network of Utah</u> has worked to establish food recovery programs at <u>Utah State</u> University; Weber State University; and, the University of Utah.
- Participants in Salt Lake City's <u>SLC FruitShare</u> program register their fruit trees, receive harvesting assistance, and share the harvest with local food assistance programs.

Vermont

- <u>Community Harvest of Central Vermont</u> based in Berlin (population was 2,887) is a local grassroots
 volunteer-driven community service program. Through gleaning, the organization recovers surplus food
 produced on Central Vermont farms and distributes it to those in the community who have limited access
 to healthy, fresh local food. Throughout the harvest season, weekly deliveries of fresh gleaned produce are
 distributed; gleaned produce is also stored to allow the organization to continue to distribute produce into
 the winter and early spring months.
- The <u>Food Recovery Network of Vermont</u> has worked to establish food recovery programs at <u>Green</u> Mountain College and University of Vermont.
- <u>Healthy Roots Collaborative</u> (HRC), based in St. Albans (population: 6,918), is an emerging, regional food systems program that works with growers, producers, and consumers in Franklin and Grand Isle County. Their Healthy Roots Gleaning Program organizes volunteers to assist in harvesting surplus produce from farms in the region.
- <u>HOPE Helping Overcome Poverty's Effects</u> is located in Middlebury (population was 8,496). HOPE rescues surplus, bakery items and, during the growing season, fresh, locally grown produce through its

gleaning program. The organization's Just Soup Project processes fresh, local produce for the freezer for use in the winter months.

- The <u>Intervale Center</u> manages a 360-acre campus of farmland, trails, and open space along the Winooski River in Burlington, VT. The Center's <u>Gleaning & Food Rescue Program</u> gleans and rescues fresh vegetables from farms in Chittenden County and distributes it through their Fair Share Program, at no cost, to 150 households and 15 social service agencies. The Fair Share Program also provides nutrition education, cooking skills, and other resources for participants to connect them with nourishing food throughout the year.
- The <u>Rutland Area Farm and Food Link</u> in Rutland (population of 16,495) strives to build connections that grow a strong agricultural economy and healthy community. Amongst its projects is a volunteer <u>Glean Team</u> that captures surplus produce from local farms for donation to community organizations in the Rutland region.
- <u>Salvation Farms</u> located in Morrisville (population 2020) is a nonprofit working to strengthen Vermont's
 food system through agricultural surplus management. The organization works with partner organizations
 to build a network for redistributing farm surplus across the state, bringing revenue to farmers while
 improving food access for low-income populations.
- The <u>Vermont Agency of Natural Resources</u>, <u>Department of Environmental Conservation</u> Food Donation in Vermont <u>website</u> has a number of resources about food recovery, including Federal Liability Protection & Tax Benefits and Vermont Laws and Regulations for businesses and institutions. It contains Vermont specific documents: <u>Harvard Food Law and Policy Clinic Fact Sheet: Liability Protection</u>; <u>Harvard Food Law and Policy Clinic Fact Sheet: Date Labeling</u>; and, <u>Donation Guidance for Businesses and Institutions</u>. It also has resources for schools, including <u>Share Table K-12 Guidance</u>.
- The <u>Vermont Foodbank</u> collects surplus and short-dated food from <u>food producers and retailers</u> for distribution to food banks and food shelfs around the state. The organization also sponsors a <u>Gleaning Program</u> which organizes groups of volunteers to harvest and gather excess produce from farms, distributing around 465,000 pounds of fresh, local produce each year to Vermonters through food shelves, meal sites, senior centers, housing sites, schools and hospitals throughout the state.
- The <u>Vermont Gleaning Collective</u> is a collective of organizations throughout the state that glean unmarketed, quality crops after harvest that would otherwise go to waste. The salvaged produce is distributed to food recovery organizations, helping to build a more dependable food system for the people, by the people. The Collective provides information to individuals wanting to become volunteer gleaners.

Virginia

- <u>Arlington Food Assistance Center</u> hosts a <u>Donate Fresh Produce</u> program where individuals can donate surplus fresh produce. They also work with farms and wholesalers to set-up gleaning opportunities.
- Through the <u>Feeding America Southwest Virginia</u> <u>Partner Pick-Up Program</u> thousands of pounds of food product are rescued each day from more than 300 local businesses. The organization serves 26 counties in Southwest Virginia.
- <u>Food for Others</u> works with partners around Northern Virginia to distribute perishable and nonperishable food. The organization obtains much of its food through food rescue operations and food drives. Staff and volunteers pickup short-dated and other edible food that would be thrown away from local grocery stores and other retail food establishments.
- The <u>Food Recovery Network of Virginia</u> has worked to establish food recovery programs at <u>University Of Mary Washington</u> and the <u>University of Richmond</u>.

Washington

- <u>Food Lifeline</u> partners with farmers, manufacturers, grocery stores, and restaurants to recover millions of pounds of this surplus food. The rescued food is delivered to 275 food banks, shelters and meal programs across Western Washington.
- <u>Feeding Washington</u> rescues more than 3 million pounds of fresh fruits and vegetables each month from statewide farmers, packers and shippers to provide to those in need.
- <u>Northwest Harvest</u> is Washington's statewide hunger relief agency. Its mission is leading the fight for
 hungry people statewide to have access to nutritious food while respecting their dignity and promoting
 good health.
- The <u>Washington Food Recovery Network</u> contains a list of FRN Chapters in the state, including the following universities and colleges: <u>Seattle Pacific University</u>; <u>University of Washington</u>; <u>Washington State University</u>; <u>Western Washington University</u>; <u>Whitman College</u>.
- The <u>Washington State Department of Ecology</u> developed a "how to" <u>PowerPoint presentation</u> to provide tips on how to set up a food rescue program.
- <u>Waste Not: Breaking Down The Food Equation</u> is a film by Pacific Lutheran University's Metalab documenting the issues of food waste.

West Virginia

• The <u>Food Recovery Network of West Virginia</u> has worked to establish food recovery programs at <u>West Virginia University</u>.

Wisconsin

- <u>Community Action Coalition for South Central Wisconsin</u>'s Food Security Program fights hunger and food
 waste in Dane, Jefferson and Waukesha Counties through several initiatives. The organization distributes
 approximately three million pounds of perishable and non-perishable food to help serve households
 experiencing poverty.
- <u>Community Hunger Solutions</u> partners with food banks serving 18 counties of Southwest Wisconsin to deliver over 350,000 pounds of fresh produce to more than 70,000 people in need.
- The <u>Food Recovery Network of Wisconsin</u> has worked to establish food recovery programs at <u>Beloit</u> College; Lawrence University; and, University of Wisconsin-Madison.
- Since 1986, <u>Second Harvest Foodbank of Southern Wisconsin</u> has provided more than 100 million meals to those facing hunger in southwestern Wisconsin.
- The <u>Wisconsin Food Security Project</u> provides localized information on food access and the food security infrastructure in Wisconsin.

Wyoming

- <u>Hole Food Rescue</u> diverts food donated by local retailers to provide meals for community members in need.
- Wyoming Food Bank of the Rockies collects donated food from grocers, restaurants and caterers, and distributes it to regional hunger-relief programs.
- The <u>Jackson Cupboard</u> is a food bank that provides nutritious food for community members in need. One hundred percent of its operating budget comes from private donations.
- <u>The University of Wyoming's Cowboy Food Sharing</u> program diverts unused food from campus dining rooms to the <u>Laramie Soup Kitchen</u>.

Food to Animals

Food that is no longer safe for people to eat may still be of use as livestock feed. "Food to animal" opportunities may particularly benefit rural, agricultural areas. Food processing facilities, supermarkets, and restaurants, can reduce food waste by sending it to farms for use as livestock feed, thus reducing disposal costs. Livestock producers can also benefit by saving money on feed costs.

Using food scraps as animal feed has been practiced around the world since humans domesticated animals. In industrialized countries, the practice <u>declined in 1980s</u> due to disease outbreaks linked to unsafe animal feed. Federal laws and regulations were passed to restrict the use of food scraps for animal feed.



With proper care and treatment, however, the practice is safe and puts food scrap resources to good use. With growing awareness of the problem of wasted food and increased support for local agriculture, the practice is again on the rise. Farmers benefit from lower cost feed, and food scrap generators are provided with a beneficial means to divert edible scraps from disposal. Communities near farm operations, or even with small-scale "backyard" chicken keepers, can benefit from promoting the practice as a means of recovering food scraps. Farms will typically offer collection services or contract with a local hauler to offer these services.

Federal and state regulations on the feeding of food scraps to livestock vary, based on the type of animal that may be fed food scraps and the kind of scraps they may be fed. Typically the most restrictive practices are those regarding swine. The federal regulations set minimum requirements, but many states go beyond them; some states ban the practice altogether. Currently, 15 states do not allow food scraps that contain any meat to be fed to pigs; twelve states also require that scraps used for swine feed be pasteurized.

<u>LEFTOVERS FOR LIVESTOCK: A Legal Guide For Using Food Scraps as Animal Feed</u> is an excellent guide developed by the Harvard Law School Food Law and Policy Clinic (FLPC) and the Food Recovery Project at the University of Arkansas School of Law. State Departments of Agriculture are also good sources for specific state regulations and requirements for feeding food scraps to animals.

National

- <u>Baskin Livestock</u> is a farm and animal feed milling plant that accepts bakery/snack food processing residuals. The company provides hauling and depackaging services for consumer food products.
- <u>Full Circle Feed</u> makes healthy and environmentally-sustainable dog treats by using meats, vegetables, fruits, and breads recovered from restaurants.
- Quest Resource Management Group designs and manages food waste diversion programs for large corporate generators, including a <u>direct-feed food recycling program</u> which helps grocers divert food waste to animal parks.
- <u>ReConserve</u> is an animal feed milling plant that accepts bakery and snack food processing residuals. The
 company provides hauling services around the U.S. and can provide depackaging services for consumer
 food products.
- The <u>US EPA Reduce Wasted Food by Feeding Animals</u> webpage has information on legal issues pertaining to feeding livestock food scraps and success story examples.
- The <u>US Environmental Protection Agency Sustainable Management of Food</u> website hosts a list of pig/hog farms in California.

Alaska

- <u>Sawmill Farm</u> in Sitka (population 8,863) is home to ducks, geese, quail, broiler chickens, turkeys, meat
 rabbits, egg-laying chickens, goats, and pigs. Every morning Bobbi Daniels, the owner of the farm drives
 around town to local stores, restaurants, and a brewery to collect food scraps to feed her livestock.
- <u>Calypso Farm and Ecology Center</u> offers workshops, a farmer training program, farm-to-school programs, and summer camps. The nonprofit organization is home to Shetland sheep, dairy goats, chickens, pigs, ducks, bees, and bunnies. The center harvests fresh milk, eggs, honey, meat, and wool from its livestock. It also uses the livestock as an integral component of their farm system. Many of the farm animals are fed field weeds and food scraps, while sheep and goat manures are used to make compost to create healthy soil for the farm's vegetable production.

Arkansas

• The University of Arkansas's <u>Food Recovery Project</u> has published a legal guide for feeding food scraps to livestock.

California

 A San Jose pilot program converts food scraps from homes to animal feed. Residential food scraps are being collected by Garden City Sanitation. Collected materials are processed by <u>Sustainable Alternative</u> <u>Feed Enterprises</u> which converts about 90% of the food scraps into a high quality and nutrient-rich mash for use in non-ruminant animal feed. Remaining materials are used for compost.

Colorado

<u>Care and Share Food Bank</u> provides mobile food pantry services to rural communities across Southern
Colorado. Through its unique <u>Zero Waste Program</u>, donated food items that cannot safely be distributes to
partner agencies because of damaged packaging, expiration dates, or recalls, are processed for animal
feed or composted. Through these efforts and a comprehensive recycling program, the organization has
diverted more than 85% of its waste from landfills.

Florida

• <u>University of Florida's Institute of Food and Agricultural Sciences Extension</u> (*UF/IFAS*) has a <u>Feeding Food Wastes to Swine</u> factsheet.

Illinois

Quincy Farm Products works with food manufacturers to divert food by-products from landfills, and with
agricultural producers and food processors to develop healthy, nutritious, and balanced livestock feed and
feed ingredients.

Maine

• The <u>University of Southern Maine</u> campuses in Gorham (population 16,381) and in Portland <u>collect food scraps</u> at their dining halls for a local farmer. Some material, including post-consumer food waste from dining operations, is collected for composting by Garbage to Garden. The USM catering team provides public food bins at events and food pails for cleanup after events. The staff at food service kiosks around campus also unwrap and compost expired food instead of throwing it in the trash. The University estimates the cost to dispose of collected food scraps with regular waste would be \$7,000 annually; the current cost is \$2,000 to have the material picked up by the farmer, for an annual savings of about \$5,000.

Michigan

 The Food Diversion Initiative at <u>Western Michigan University</u> has diverted more than 39,000 pounds of waste since it began in the fall of 2012, by feeding food scraps to pigs.

Minnesota

- For more than 14 years <u>Barthold Recycling</u> in St. Francis (population 7,218) has been hauling food scraps from schools, institutions, and business in the Twins Cities metro region to a network of farms to use for pig feed for more than 14 years.
- The <u>Jeffers Foundation</u> <u>Waste Reduction Awareness Program</u> (WRAP) website contains several resources for school food waste reduction, including: <u>Food to Livestock</u>.
- Winona Farm is one of 17 licensed waste food feeders in the state of Minnesota.
- <u>University of Minnesota Technical Assistance Program</u> has <u>Feeding Food Processing By-Products To</u>
 <u>Livestock</u> factsheet and a <u>listing</u> of Livestock producers accepting food by-products

New Jersey

• New Jersey's Rutgers University is the third largest student dining operation in the country. Its dining facilities serve more than 3 million meals and cater more than 5,000 events each year. The University is also home to one of the oldest food recovery programs in the country. The program started the 1960s, when dining operations began diverting food scraps to a local farm for use as animal feed. Dining hall staff scrape food from bussed dishes into a trough. The trough moves the food, as well as used napkins, into a pulper which pulverizes the food scraps and removes excess water, reducing the volume by up to 80 percent. The pulped food is then deposited in barrels and stored in a refrigerator until it is hauled by Steve Pinter, owner of Pinter Farms. Water from the system is recycled to transport more scraps to the pulper. Pinter Farms is less than 15 miles away. The pulverized food scraps, averaging 1.125 tons per day, are used to feed his hogs and cattle, just as his grandfather did almost 50 years ago. For his services, Pinter charges \$30 per ton, as opposed to the approximately \$60 that Rutgers pays to haul a ton of trash to the landfill

New Mexico

Galloping Grace Youth Ranch in Rio Rancho accepts donation of fresh foods to feed its farm animals. The
nonprofit organization partners with grocery stores to rescue fruits and vegetables, and works with other
local agencies to collect grain and dairy products that would otherwise have gone to the landfill.

New York

 The <u>New York State Food System Sustainability Clearinghouse</u> is hosted by the NYS Pollution Prevention Institute contains information on feeding food scraps to animals and includes specific NYS regulations for feeding <u>food scraps to animals</u>.

Texas

• The <u>Melissa Feeders</u> Value Added Feeds program reclaims byproducts of pinto bean processing and out of date milk from the food industry for manufacturing feed for cattle operations.

Wisconsin

The <u>University of Wisconsin Extension</u> has a <u>Using food Waste as Livestock Feed</u> which offers practical
advice and covers Wisconsin state and federal regulations. The document contains appendices with
extensive research on various recovered feed options, nutrition, etc. for livestock.

Diversion

Composting

Organics recycling—commonly known as composting—is a controlled, aerobic (requiring oxygen) biological process which results in the decomposition of organic materials. This decomposition process occurs naturally in nature. In composting, microorganisms (bacteria, fungi, and other living organisms) digest the organic residues for food and energy, resulting in more rapid decomposition. This "manufacturing process" converts waste material into a value-added product.



The controlled composting process is created by combining organic materials, including food scraps, yard trimmings, manure, and/or other organics, in proper ratios into containers, piles, rows, or other composting system. Adequate air flow and sufficient moisture to achieve accelerated decomposition must also occur. The "finished" material is then allowed to mature through a curing period, resulting in compost.

Composting can be done on a small "decentralized" scale, as in home or backyard composting; at schools, institutions, or businesses; on a neighborhood or community composting level; or, on a larger scale, at farms, commercial, and municipal/tribal operations. Compost users include homeowners and communities, nursery and greenhouse operators, landscapers, gardeners, farmers, grounds maintenance personnel, golf course managers, transportation departments, land development contractors, and others.

National

- Since 1960, <u>BioCycle</u> has been a leading magazine and website resource on composting, organics recycling, anaerobic digestion and renewable energy. <u>BioCycle Conferences</u> incorporate waste management into today's real world issues—sustainability, climate change, soil and water protection, jobs, and more.
- The <u>Composting Council Research and Education Foundation</u> (CCREF) works to advance composting technologies, practices, and beneficial uses that support resource conservation and economic and environmental sustainability. It hosts the <u>International Compost Awareness Week</u> (ICAW). CCREF also has resources available for download, including <u>Curb To Compost Toolkit- How To Include Food Scrap Collection In An Existing Yard Debris Program</u> and a <u>Navigating Compostable Plastics Toolkit</u>.
- **GRACE Communications Foundation**'s Composting 101 webpage has a number of composting resources.
- Founded in 1974, the <u>Institute for Local Self-Reliance</u> is a nonprofit which strives to provide innovative strategies, working models, and timely information to support environmentally sound and equitable community development. The organization supports numerous composting <u>initiatives</u>, including a range of <u>reports</u>, such as <u>Composting Makes \$en\$e: Jobs through Composting & Compost Use</u> and <u>Growing Local Fertility: A Guide to Community Composting</u>; the <u>benefits</u> of composting and compost use; <u>webinars</u> and other resources. Its <u>Neighborhood Soil Rebuilders</u> Compost Training Program trains participants to establish and manage composting projects that engage and serve their communities.
- The Rodale Institute is a nonprofit dedicated to fostering organic farming through research and outreach. For seventy years, the organization has been researching methods for improving soil health, crop quality, and yields to simplify and improve farming methods and management practices. The organization shares its best practices research with farmers, scientists, policy-makers, gardeners and consumers, advocates for policies that support farmers, and educates consumers. Located in Kutztown, Pennsylvania (population 5,017), Rodale shares its research and resources through trainings, webinars, online tools, and articles.
- The <u>US Composting Council</u>, was established in 1990, and is the only national organization in the United States dedicated to the development, expansion, and promotion of the composting industry. The USCC promotes and supports composting and composting entities, conducts compost-related research, promote

industry best management practices, establishes <u>standards</u>, provides professional <u>trainings</u>, and provides publically available <u>resources</u> on composting and compost utilization, enhancing compost product quality, and developing training materials for composters and <u>markets</u> for compost products.

Alabama

- The Alabama Cooperative Extension System has published a <u>how-to manual</u> for backyard composters.
- <u>Bama Dining</u>, of the University of Alabama, diverts 4,000 pounds of food waste per week from landfills, delivering it to the University of Alabama Arboretum and the University of Alabama Grounds Department for composting
- <u>The Captain Compost of Alabama</u> not only sells compost and holds organic garden classes all over the state of Alabama, but also hosts an entertaining and informative web site.
- <u>Faulkner Farms Compost</u> makes compost and sells it by the bag and by the yard. It also sells liquid compost worm casings.

Alaska

- Alaska Waste operates Alaska's only state of the art in-vessel composter. The company started its commercial food waste composting program in 2009. Alaska Waste processes nearly 10 tons of organic waste a week, primarily made from vegetable and fruit waste from local grocery stores and horse manure from Anchorage residents. The company also opened a biodiesel processing facility in Anchorage that recycles used cooking oil into a renewable fuel source. The Alaska Waste Biodiesel Plant is capable of recycling over 250,000 gallons of used oil from restaurants and other sources into renewable fuel each year. Currently more than 240 businesses participate in the cooking oil recycling program keeping an estimated 4,000 gallons of oil per week out of the waste stream.
- In the summer of 2016, Anchorage Solid Waste Services (SWS) launched a pilot composting program which allowed residents to exchange food waste for finished compost at the city landfill. Participants in the program receive a free five-gallon bucket to store food waste. Residents drop off their full buckets of food scraps at the Anchorage Regional Landfill or the Central Transfer Station. In exchange for dropping off food waste, program participants can pick up a bucket of finished compost provided by Susitna Organics, the processor. Funding for the program is provided through the Anchorage Solid Waste Service's recycling fees. The program is designed to promote both composting and community gardening by making composting more accessible to the community.
- For composting tips specific to Alaska, download the free publication from the <u>University of Alaska</u> Fairbanks Cooperative Extension Services.

Arkansas

- <u>American Composting</u> is a large organics composting operation in central Arkansas. The company accepts food scraps and other organic materials for composting and markets its compost, soil, and mulch products throughout the mid-South.
- The Arkansas Department of Environmental Quality has published a guide to home composting.
- The <u>Urban Food Loop</u> offers food scrap composting services for homes, businesses, and events in central Arkansas.
- University of Arkansas Cooperative Extension Service has a number of composting resources.

Arizona

 Headquartered in Eaton, Colorado, <u>A1 Organics</u> is the largest organic recycler and producer of compost in the Rocky Mountain region. The company diverts over 350,000 tons of waste per year from Colorado landfills. The company has operations in Buckeye, Arizona. • Hopi Tutskwa Permaculture Institute is a community-based non-profit founded in 2004 and based in the Village of Kykotsmovi, located in Northern Arizona, on the Hopi Reservation. The organization integrates permaculture methods to grow food crops and help Hopi people become more self-sufficient, including the promotion of composting and building healthy soils. Its Hopi Youth Summer Permaculture Program is an 8-week training program that fosters leadership skill development to strengthen local food systems and to initiate sustainable ecological projects within the Hopi community. The training includes lessons on how to improve soil, mulching and composting, worms/vermiculture, and traditional Hopi dry farming methods of caring for soil.

California

- <u>CalRecycle</u> features a wide range of composting resources, <u>Using Compost and Mulch</u>; <u>Find a Composter</u>
 <u>Near You</u>; <u>Compost and Mulch Producers</u>; <u>Regulations</u>; <u>Compostable Materials Management for</u>
 <u>Operators</u>; <u>Compost Use in Agriculture</u>; and, <u>Worms</u>.
- <u>CalRecycle Community-scale composting</u> webpage contains a number of resources, including how to start, choosing a compost method, and more.
- The <u>CalRecycle Facility Information Toolbox</u> (FacIT) allows for a detailed search of compost operations by facility name, county, or region.
- <u>CalRecycle Home Composting</u> webpage contains a guide to *Building You Own Composting Bin: Designs for Your Community*.
- The <u>Center for Regenerative Agriculture</u> (CRA) is a nonprofit corporation in Ojai (population 7,585). A
 major goal of the CRA is to teach about healthy organic soils. The organization also works with <u>Food for</u>
 <u>Thought Ojai</u> and the <u>Captain Planet Foundation</u> to install and support continuous flow worm bins at
 schools in Ventura and Santa Barbara counties.
- The <u>Compost Club</u>, based in Healdsburg (population 11,827) provides education and installs worm bin systems at schools, businesses, and institutions around Sonoma County. Over thirty five sites now engage in daily recycling of food and organic waste through the Compost Club's efforts. Through the program more than 72,800 pounds of food scraps and soiled paper are being diverted from the landfill. Parents and students participate in the harvest, bagging, and labeling of the finished soil amendment for sale.
- <u>Food2Soil</u> is an enterprise-based collective of San Diego businesses and gardeners transforming food
 waste into soil, food, and jobs. Through the unique program chefs and restaurants partner with
 community gardens and urban farms compost collected food scraps and grow local food in they the
 create
- Kern County is one of many local agencies in California that promote back yard composting.
- <u>Puentes</u> is a non-profit group in Stockton that is developing an urban farm to increase food security and healthy diets in under-served communities.
- <u>RecycleWorks</u> is a program of San Mateo County. Its website hosts numerous resources on <u>composting</u>, including <u>backyard composting</u> basics and <u>worm composting</u>. The program also sponsors a <u>Master Composter</u> course as part of the County of San Mateo's <u>RecycleWorks Volunteer Academy (RVA)</u>.
- Santa Clara County operates a Master Composter program.
- <u>Santa Cruz Community Composting Company</u> is a bicycle-powered food scrap collection service. Collected materials are composted at a local farm.
- Santa Ynez Band of Chumash Indians, San Joaquin Valley, promotes gardening, landscaping and composting aimed at increasing community self-sufficiency and reducing waste. The Santa Ynez Chumash Environmental Office (SYCEO) has embraced the goal of zero waste. SYCEO also encourages composting and composts the organic waste at the Tribal Hall and uses the finished compost to amend the sustainable landscaping around the Tribal Hall. SYCEO promotes composting as a reduce waste and as a means to provide cost savings in the form of reduced waste hauling fees and soil amendment purchasing.
- <u>Sierra Nevada Brewing Company</u> has been recognized locally, statewide, and nationally for its commitment to reducing our environmental impact. The company diverts <u>99.8% of solid waste</u> from its

facilities through reusing, recycling, and composting. Residue malted barley and hops used to make its beer are diverted for feed to local cattle and dairy farms. At its Chico, California brewery an onsite HotRot Vessel Composting System is used to compost food scraps generated at its restaurant. Finished compost is used on the company's hop field, restaurant garden, and employee garden area. At its Mills River, North Carolina facility it partners with a local composting company and "closes the loop" by purchasing compost from the company for landscaping and gardening.

- Through education and action, the <u>Solana Center for Environmental Innovation</u> guides businesses to sustainable practices and empowers students, adults, and organizations to become environmental stewards. Its <u>Food Cycle Model</u> aims to find the best uses for surplus food, including composting, feeding animals, and creating biofuels.
- The **Sonoma Compost Club** is an innovative group that installs composting sites at schools.
- <u>West Side School</u> in Healdsburg diverts its school food scraps through a worm composting program. The K-6 school, with approximately 130 students, sells its sifted and bagged compost at a local farmers' market. The program teaches the children sustainable practices and has funds raised from the sale of the Vermicompost supports the school garden.

Colorado

- Founded in 1974, <u>A1 Organics</u> is the largest organic recycler and producer of compost in the Rocky Mountain region. The company diverts over 350,000 tons of waste per year from Colorado landfills. The company has operations in Commerce City, Keenesburg (population 1,200), Eaton (population 5,086), and Buckeye, Arizona.
- In <u>Douglas County School District</u>, about a third of the schools compost cafeteria food scraps. Additionally, 55 of the District's schools have gardens, schoolyard habitats, and/or outdoor learning areas to provide students with outdoor learning. The composting efforts and gardens help create a positive learning environment for students, while also serving to bring students, families, staff, and communities together. Students apply STEM skills and scientific methods through their composting and gardening programs. There is a strong interest in building best practices across the District as its gardens and composting continue to expand.
- The <u>University of Colorado</u> (CU) in Boulder has been collecting food scraps in its dining halls since 2004, capturing more 170 tons of organic materials each year for composting. The CU Environmental Center has published a <u>Food Waste Composting Guide</u>.
- Weld County School District 6 is a rural, agricultural area in the northern part of the state. The School
 District is active in Colorado's Farm to School program. Outside of the School District's central kitchen are
 four compost bins used for turning food scraps from the kitchen into compost for the District's school
 gardens, funded through an innovative partnership with the West Greeley Conservation District.

Connecticut

- The <u>Connecticut Department of Energy and Environmental Protection</u> (DEEP) has a <u>Composting and Organics Recycling</u> webpage which contains resources for <u>Composting at Home</u>, <u>Composting at School</u>, and, <u>Composting at Work</u>. It also contains a link to the <u>Connecticut Commercial Organics Recycling Law-Information & Guidance for Food Residual Generators</u> and <u>permitting and regulatory</u> information for siting compost operations of all sizes. DEEP also a listing of the State's <u>Food Waste Composting Facilities</u> and a <u>Food Residual Recycling map</u>.
- Housatonic Resources Recovery Authority (HRRA) has partnered with local town governments to offer organics (food scraps) recycling drop-off programs in New Fairfield (population 13,881), Newtown (population 27,560), Redding (population 9,158), and Ridgefield (population 24,638). HRRA also hosts an Organics webpage with information on home composting and links to resources.
- <u>Peels & Wheels Composting</u> is a neighborhood food waste collection and composting operation conducted in partnership with <u>New Haven Farms</u>, <u>Inc</u>. Using bikes, bins, and trailers, Peels &

Wheels pick up kitchen scraps and other organics from residents, schools, and businesses. The collected materials are transported to their Phoenix Press Farm and other farms and gardens for composting.

Florida

- Environmental Turnkey Solutions is a Naples-based full service organics recycling and compost technology company.
- The <u>Florida Organics Recycling Center for Excellence (FORCE)</u> is a legislatively funded project to provide a framework to promote organics recycling in a statewide effort to streamline compost processing, research, demonstration, marketing, and education in Florida.
- <u>Gainesville Compost</u> is a pedal-powered community compost network in Gainesville, Florida. Its Bike-Powered Food Waste Diversion program collects kitchen waste from numerous local restaurants, cafes, bars, and residents.
- <u>Recycle Florida Today (RFT)</u>'s website provides organics recycling resources and links.
- The University of Florida's <u>Student Compost Cooperative (SCC)</u> maintains several composters to allow students in dorms or apartments to compost their food waste.
- <u>University of Florida's Institute of Food and Agricultural Sciences Extension</u> (*UF/IFAS*) has <u>tips</u> on reducing food waste, <u>vermicomposting</u> and <u>home composting</u>. <u>Feeding Food Wastes to Swine</u>.

Georgia

- GRC is involved in a partnership with <u>Food Well Alliance</u> and EPA Region 4 to initiate an <u>Atlanta</u> <u>Community-Based Composting Council</u>.
- Food Well Alliance has a comprehensive list of composting resources from around Georgia.
- The <u>Georgia Department of Community Affairs</u> and the <u>Georgia Recycling Coalition</u> (GRC) collaborated on a <u>Residential Source Separated Organics Collection Tool Kit</u> for evaluating the feasibility of residential curbside collection of organics. Two performance modeling calculators can also be downloaded: <u>SSORT Calculator Curbside</u> (Excel) and <u>SSORT Calculator Drop-off</u> (Excel). The Georgia Department of Community Affairs also has a <u>Home Composting</u> guide.
- The <u>Georgia Recycled Organics Council</u>, a branch of the Georgia Recycling Coalition, works to promote and foster composting practices or other higher beneficial uses of organic material, including food residuals food.
- <u>Let Us Compost</u> started in 2012. The company is a bicycle-powered food scrap and yard trimmings hauler in Athens. It composts collected materials at West Broad Farm in Athens.
- The University of Georgia Extension hosts an informative webpage on composting.
- The Environmental Protection Division (EPD) of the Georgia Department of Natural Resources maps composting facilities in Georgia.
- The Athens-Clarke County <u>Commercial Composting Facility</u> accepts food scraps. Its compost product . Its website also contains <u>backyard composting</u> information
- <u>CompostWheels</u> works with farms and gardens in Atlanta-metro region that collectively grow 75,000 pounds of fresh produce annually and compost approximately 288,000 pounds of food scraps.
- Turner Environmental Law Clinic produced a <u>Best Practices for Composting Safely on a Small Scale</u> fact sheet to help explain the regulations and best practices for Georgia.

Hawaii

<u>City & County of Honolulu's Department of Environmental Services</u> hosts a <u>food waste recycling</u> website for businesses. The website offers a number of resources, including <u>Assess Your Recycling Potential</u>, <u>How to Recycle</u>, and sponsors a <u>Food Waste Recyclers</u> listing. The Department's <u>Peer Consultants</u> are companies who have established successful programs for reducing and recycling wastes, including hotels, restaurants, property managers, and food and beverage operations.

Illinois

- The <u>Illinois Food Scrap Coalition (IFSC)</u> is a group of solid waste agencies, counties, community and government organizations, businesses, schools, institutions, service providers, and processors dedicated to advancing food scrap composting in Illinois through program implementation, policy, and advocacy. In 2014, IFSC organized five forums held across Illinois to discuss food scrap diversion policies, programs, and best practices from around the country. Its <u>Food Scrap Composting Challenges and Solutions in Illinois Report</u> is the culmination of national and regional research conducted on policies, programs, strategies, and economic development potential related to food scrap composting, as well as input through the stakeholder forums.
- Illinois-based <u>Organix Recycling</u> enables supermarkets and other organizations to recycle fully depackaged produce, dairy, salad bar and bakery items including acceptable fruits, vegetables, bakery, dairy and pasta.
- The <u>Illinois EPA</u> maintains an extensive list of compost facilities in the state.

Indiana

- <u>Earth Mama Compost</u> provides food scrap collection for communities, residents, and commercial establishments in the greater Indianapolis area.
- For more than twenty years, <u>GreenCycle</u> has been on a mission to keep as much waste as possible out of Indiana's landfills and to use collected organics to make quality landscaping products. GreenCycle accepts food scraps and other organics to manufacture organic mulches, composts, and soil blends for consumer and commercial use. The company has facilities in Indianapolis, Noblesville, Danville (population 9,676), and Whitestown (population 6,590).
- <u>Green With Indy</u> provides food scrap collection services for residents, commercial businesses, and for special events in the greater Indianapolis area. Collected materials are processed at a local compost facility.
- The <u>Indiana Recycling Coalition</u> (IRC) is a nonprofit organization representing concerned citizens, state and local government officials, business, industry and environmental groups. The organization was recently awarded funding from the <u>Closed Loop Foundation</u> to implement a pilot composting program in Indianapolis as part of its mission to further food recovery in the state.
- <u>Indiana University Bloomington</u> implemented a <u>food waste composting program</u> in September 2011.
 Collected materials are composted on campus.
- Composting resources on the <u>Recycle Indiana</u> website includes a list of <u>registered composting facilities</u> in the state.

Iowa

- The <u>Central Community School</u> in Elkader, a K-12 school, composts all of the school's food scraps. Through composting the school has reduced their lunchtime waste by nearly 60%, which has saved money and allowed students to learn about the environmental benefits of reducing waste.
- <u>lowa City</u> has a <u>Compost at the Curb Program</u> for residents. The city has a <u>brochure</u> and <u>Curbside Compost 101 video</u> for instructions about the program. The city operates a <u>commercial composting</u> site at the lowa City Landfill where it composts collected food scraps and yard trimmings in open-air windrows. The city also promotes <u>composting at home</u> as a good way to deal with food scraps.
- The University of Northern Iowa <u>lowa Waste Reduction Center</u> (IWRC) provides environmental consulting, assistance, training, and education. IWRC has developed several composting-related documents, including: *Methods of Composting at Home* and *Composting Toolkit*.

Kentucky

- The University of Louisville has created a downloadable 66-page document entitled <u>Organics Recovery</u>

 Program Development Tool for Colleges and Universities.
- <u>Earth First of Kentuckiana</u> has five locations, where bulk compost, topsoil, mulch, and other landscaping products are sold.
- Smith Creek sells bulk compost, mulch, and other landscaping products.

Louisiana

 <u>The Composting Network</u> provides commercial composting in New Orleans. It was established in 2010 by local residents, The Composting Network, collects food scraps and other organic materials from residents, businesses, schools and universities, and restaurants.

Maine

- <u>Benson Farm</u> in Gorham (population 14,101), composts food scraps collected from local communities as well as seafood waste from Maine fishermen.
- <u>Garbage to Garden</u> is a community curbside compost service based in Portland, Maine. It offers collection of food scraps to residents, schools, and commercial businesses in Portland, South Portland, Falmouth, Cumberland, Yarmouth, Westbrook, Cape Elizabeth, Brunswick and Bath. Collected food scraps re composted at Benson Farm.
- <u>Little River Compost</u> in Lisbon Falls (population 4,100) works with local Maine farmers, foresters and fishermen to help them manage their manure, wood chips, and fish by-products through composting.
- Founded in 1997, the <u>Maine Compost School</u> is an internationally recognized certificate program and trains personnel to be qualified compost site operators. Its course is for people interested and/or involved with medium and large-scale composting operations and includes classroom instruction, laboratory experience, hands-on project exercises, and tours of compost operations.
- Maine Composts Week is a statewide event that strives to connect local communities, schools, businesses, residents, municipalities, and other institutions with the resources, service providers, and information to engage on the topics of composting, anaerobic digestion, and food insecurity.
- The <u>Maine Department of Environmental Protection</u> provides technical assistance for local and regional
 efforts to establish composting programs. Its resources include: an <u>Organics Recycling Overview</u>; <u>Backyard
 composting brochure</u>; a <u>Guide to Recovering and Composting Organics in Maine</u>; <u>10 Steps to Starting a
 School Composting Operation</u>; and, support for <u>The Maine Compost School</u>.
- The Maine Organic Farmers and Gardeners Association (MOFGA), formed in 1971, is the oldest and largest state organic organization in the country. MOFGA educates about and advocates for organic agriculture, local food production, and thriving communities. It has a range of <u>publications</u> on composting.
- <u>University of Maine Cooperative Extension</u> has several publications on composting, including <u>Home Composting</u>; <u>How Compost Happens</u>; and, <u>Keeping Worms Happy</u>: information about worm bins for younger audiences. The Extension also has compost videos: <u>Home Composting Basics</u>, <u>How to Home Compost: A Compost Recipe</u>, and <u>Worm Composting</u>.
- The University of Maine <u>Senator George J. Mitchell Center for Sustainability Solutions</u> provides a widerange of <u>composting</u> resources.
- <u>We Compost It!</u>, located in Scarborough (population 18,919), provides food scrap collection for residents and businesses. The company's compost is approved by the Maine Organic Farmers and Gardeners Association for organic growing soils.

Maryland

• <u>Baltimore Free Farm</u> is a volunteer-based nonprofit which operates several garden collectives and provides educational events on growing local produce. It also hosts a Food Rescue Day, where members of Baltimore Free Farm go to various produce distributors and grocers to rescue distressed goods: items

too ripe to sell or on or just past their expiration date. The collected produce, dry goods, and bread are redistributed to the community.

- <u>Bates Trucking</u> headquartered in Bladensburg (population: 9,608) offers commercial food retailers, restaurants, and caterers, <u>collection</u> of food pre-and-post consumer food scraps. The company transports the materials to a local compost operation.
- The <u>City of Bowie</u> started a <u>Food Waste Composting Pilot</u>.
- <u>Compost Cab</u> works with households, organizations, institutions, and businesses to implement composting programs. Its tools and support include: data reporting, training, waste auditing, collection services, and LEED expertise.
- The <u>Compost Crew</u> offers food scrap collection services for households, communities, events, schools, and businesses in the DC metro area and Baltimore.
- <u>Eco City Farms</u> is an educational, nonprofit organization in Prince George's County, MD, serving as the
 prototype for sustainable local urban farming. The farm practices onsite <u>composting and vermicomposting</u>.
 The <u>Neighborhood Soil Rebuilders training program</u> is a community composter train-the-trainer program
 with a community service component. This program was developed ECO City Farms in partnership with the
 Institute for Local Self-Reliance.
- EnviRelation provides food scrap collection services for customers from an array of different industries, including restaurants, caterers, hotels, markets, schools, hospitals, and health care facilities. Their service area in Maryland, Washington D.C., and Virginia; collected materials are delivered to local composting facilities.
- The Maryland Department of the Environment hosts an Organics Diversion and Composting webpage contains grant announcements; information on Composting Facility Permits and regulations in the state; a List of Composting Facilities; an overview of Composting in Maryland; Legislation and Reports; a list of Food Waste Hauling And Recovering Companies providing services in the state; and, links to additional resources, including: Resources for Businesses, Resources for Institutions, Resources for Schools and Students, Resources for Local Government, Resources for State Government, and Resources for Farms. Its Resources for the Public includes Building Your Own Composting Pile and Build a Worm Farm.
- Maryland Environmental Service is a self-supporting, independent State agency which strives to combine the public sector's "commitment to environmental protection" with the private sector's "flexibility and responsiveness." MES provides environmental and technical services to governmental and private sector partners and works on a range of projects including solid waste management, including food waste composting. MES is working with Prince George's County on a food waste composting demonstration project using the Gore™ cover system technology.
 - The <u>Maryland Green Registry</u>, a program promoting sustainability around the state, hosts a <u>Compost Challenge</u> to encourage Green Registry members to reduce and compost food scraps and other organics. The webpage has a list of Maryland Green Registry members who collect food scraps and/or yard waste for composting and resources.
- MD Recycles provides a list of composting companies in Maryland.
- Montgomery County is composting food preparation scraps at three cafeterias in County facilities. In addition, leftover food is packaged and brought to area homeless shelters for distribution.
- Prince George's County began food waste composting at its <u>yard waste composting facility</u> in 2013. The facility, located in Upper Marlboro (population 669), processes food scraps commingled with mulch and yard trimmings utilizing the Gore Cover technology aerated pile system. Food scraps are accepted from pre and post-consumer entities, including residential, commercial and institutional sectors. Its compost product, known as <u>LeafgroGold</u>, is marketed by the County's contractor, the <u>Maryland Environmental Service</u> (MES).
- <u>Veteran Compost</u> in Aberdeen (population 14,959) and Fairfax, Virginia has a mission: employ veterans and their family members and turning food scraps into high-quality compost. The company provides

- residential commercial collection services throughout the Baltimore/Annapolis Metro Area, as well as special events.
- <u>Waste Neutral</u> provides collection services for pre- and post-consumer food scraps from commercial properties, restaurants, and institutions. The company also provides waste audits and recycling program services. Its <u>website</u> includes case studies and other resources.

Massachusetts

- Manchester Essex Regional Middle School, in Manchester-by-the-Sea, in
 Essex County, Massachusetts, (population 5,136) has a very successful Green
 Team. The Team's multi-faceted waste reduction, recycling, and composting
 program resulted in a 90% reduction in the school's waste stream. The
 program has been expanded to all of the district's schools.
- Martha's Vineyard (population 15,000) is a Massachusetts island located next to Cape Cod. Like many islands, it has to ship its waste for disposal. A growing interest in composting is developing. <u>Island Grown Initiative</u> strives to help create a more resilient and equitable food system on the island. Part of their mission includes the <u>reduction</u> of food waste by recovering food that can be redistributed to those needing food assistance. Another initiative, <u>Island Food</u>



- Rescue (IFR), is a pilot project to utilize food scraps to enrich the Island community and its local food system. IFR started by working with the Martha's Vineyard Shellfish Group to collect food scraps and shells from restaurants in Oak Bluffs and Edgartown. The materials were transported to Morning Glory Farm to be composted. In 2016, the operation was expanded to the Vineyard Haven community, and a second farm joined to utilize the food scraps to make compost. Additional expansions, including food scrap collection at transfer stations, are now being undertaken.
- Martin's Farm, a local family-owned business in Greenfield (population 17,456), has been producing top
 quality compost and mulch for thirty years. The company accepts food scraps, leaves, manures, grass,
 cardboard, and paper from households, schools, institutions, and businesses around Western
 Massachusetts and Southern Vermont.
- The <u>Massachusetts Department of Environmental Protection</u> has a Commercial, Institutional & Agricultural Composting & Organics webpage with case studies and other resources, including a <u>Map & List</u> of Massachusetts Sites Accepting Diverted Food Waste Material, May 2017.
- <u>RecyclingWorks in Massachusetts</u> maintains a <u>database of recyclers</u> who provide services in the state, including those that haul and process food waste for composting and anaerobic digestion. Its <u>Food Waste Page</u> contains a range of resources, including case studies, to assist businesses in setting up food scrap composting programs.

Michigan

- Ann Arbor provides seasonal curbside compost pick-up, including food waste, for residents.
- <u>edible flint</u> supports Flint residents in growing and accessing healthy food in order to reconnect them with the land and each other. Its <u>Garden Starters</u> work group provides resources, training, and technical assistance for gardeners to increase the number and effectiveness of food gardens in our city. Resources include composting information to help improve urban soils.
- The <u>Michigan Department of Environmental Quality</u> (DEQ) website contains a <u>lists registered composting facilities</u>, a <u>Compost Operator Guidebook</u>, as well as, <u>resources and presentations</u> from its 2015 Compost Operators Training.
- Michigan Green Communities is a statewide network of local government and university staff who
 collaborate through peer learning and information sharing, to promote innovative solutions and
 sustainability initiatives at the local, regional, and state level. The MGC Challenge is an annual program

that helps communities measure their progress towards sustainability; its <u>Challenge Actions and Reporting</u> Metrics include examples for community food scrap composting.

- The Michigan Recycling Coalition hosts a web page on organics which includes a variety of resources.
- <u>Tuthill Farms and Composting, Inc.</u> in South Lyon (population 11,713), provides hauling and processing services for commercial food scraps. The operation is a fifth generation compost farm, diverting 20 cubic yards of waste from landfills each week.

Minnesota

- <u>Eureka Recycling</u> strives to make zero waste a reality. It's <u>Make Dirt Not Waste</u> website has a number of resources on wasted food prevention, including the <u>Top 10 quick and easy tools and tips</u> for reducing food waste, a <u>food storage tips database</u>, <u>A-Z Food Storage Tips--Quick Reference</u>, and a meal planning tool.
- The <u>Fond du Lac Tribe</u> in Cloquet started several vermicomposting and household composting programs, to foster environmental education while reducing the food waste, including the Ojibwe School Vermiculture Program, Head Start Vermicomposting, and a Household Vermiculture Project.
- The <u>Minnesota Composting Council</u> is dedicated to the development, expansion, and promotion of the composting industry based upon sound science, principles of sustainability, and economic viability.
- The Minnesota Pollution Control Agency website includes **information** on compost facilities in Minnesota.

Montana

- <u>Dirt Rich Compost</u> offers food scraps pick up services to households and businesses, and uses the food scraps for a compost product.
- The <u>Jeffers Foundation</u> <u>Waste Reduction Awareness Program</u> (WRAP) website contains numerous resources for school food waste reduction, including: <u>Food Waste Composting</u> and <u>Vermicomposting</u> <u>Programs</u>.
- The <u>Montana Department of Environmental Quality</u> hosts a web page featuring resources relating to composting.

New Hampshire

- Mr. Fox Composting offers curbside collection of food scraps for residents, as well as schools and businesses in the seacoast region of New Hampshire.
- <u>Seacoast Farms Compost Products, Inc.</u> in Freemont (population 4,283) was founded with a mission to
 recycle discarded organic materials into useful soil products. The company accepts leaves, yard trimmings,
 food residuals, seafood wastes, and animal manures for composting and produces several compost and
 topsoil products.
- The <u>University of New Hampshire</u> (UNH) <u>Composting Facility</u> involves a partnership of the <u>College of Life Sciences and Agriculture</u>, <u>Sustainability Academy</u>, <u>NH Agricultural Experiment Station</u> and <u>UNH Dining</u>. The compost operation provides opportunities for teaching, research and outreach on sustainable reuse of farm and food wastes. Ingredients for the composting operation include NHAES/COLSA dairy and equine bedding and manure, food and bakery waste from UNH Dining Services, and leaves and grass clippings from UNH Grounds and Roads operations. All UNH Dining Halls have pre-and-post consumer collection of food scraps. UNH Dining staff collect the food waste and transport it to the compost facility.

 Approximately 200,000 pounds per year are composted at the facility.

New Mexico

 Bernalillo County Extension's <u>Master Composter Program</u> website includes extensive information on all facets of composting.

- New Mexico Environment Department's website includes a page on Organic Recycling and Reuse.
- The <u>New Mexico Recycling Coalition</u> maintains searchable <u>directory</u> for food waste collection service or composting facility in New Mexico.

New York

- Cornell Waste Management Institute CWMI is a program in the Soil and Crop Sciences Section, School of Integrative Plant Science in the College of Agriculture and Life Sciences at Cornell University. CWMI conducts research, outreach, training, and technical assistance, with a focus on organic residuals. It hosts the NYS Compost Facilities Map. CWMI has numerous school composting resources, including a 2017 School Composting Let's Get Growing! A quide for student leaders and teachers. Its 2017 Compost Use for Improve Soil Poster Series describes how compost can be used in different applications to improve soil. CWMI has numerous composting resources available for download, including Vermicompost, small-scale composting, and large-scale composting.
- <u>Dish Truck</u> is a non-profit based in the Ithaca region to provide clean durable dishes for use at special events held in the Ithaca region to use in place of disposable dishware. The volunteer-based organization also works with events to collect food scraps for composting. The Dish Truck's team help events develop the logistics for setting up dish distribution and return stations, as well as the hauling and washing the dishes. The organization works with the endorsement of the Tompkins County Health Department in consultation with the New York State Department of Health.
- New York State Association for Reduction, Reuse, and Recycling (NYSAR³) Organics Council has more than 80 people involved in Council activities and its five working groups that work towards keeping organics such as food scraps, leaves and yard waste out of landfills. The Council sponsors an annual Summit and other activities around the state.
- The New York State Food System Sustainability Clearinghouse, hosted by the NYS Pollution Prevention Institute, contains resources for non-manufacturing businesses involved in food retail or service, including colleges and universities, hotels, hospitals and nursing homes, restaurants, k-12 schools, supermarkets and grocery stores, entertainment facilities, and wholesale/distribution centers. Resources include a Food Waste Estimator calculator, assessment and tracking tools, and, an Organic Resource Locator, a web-based mapping tool that lists compost and anaerobic digestion facilities in the state.
- Tompkins County Department of Recycling and Materials Management operates eleven Food Scraps Recycling Drop Spots in a primarily rural county (with the exception of the City of Ithaca). Residents may bring up to 10 gallons of food scraps and paper napkins and towels per day, free of charge to the Drop Spots. It also provides food scraps recycling kits which include a kitchen caddie, bags and a transportation container available free of charge. The collected material is processed by Cayuga Compost. The Department's ReBusiness Partners Program helps businesses reduce waste, increase recycling and composting, and adopt green purchasing practices. Through the program, businesses receive free assistance in program set-up, free compost signage, and reduced fees for food scraps recycling service. Its Waste Reduction and Recycling Assistance for Rural Mobile Home Parks and Apartment Complexes is designed to assist recycling coordinators in providing waste reduction, recycling, and food scrap diversion assistance to rural mobile home parks and apartment complexes.
- Westchester County collaborates with the Arc of Westchester, the county's largest organization for the developmentally disabled, to offer a Food Waste Composting Program. The Arc of Westchester program participants assist in the operation of an in-vessel composting unit at the county's Household Material Recovery Facility in Valhalla (population 3,162). The pilot program is currently accepting food scraps from the Westchester Medical Center and Westchester Community College. The resulting compost will be given to the Westchester County Department of Public Works for use on county grounds and community gardens maintained by the Food Bank for Westchester. The program became operational through two grants, a New York State Department of Environmental Conservation grant for 50 percent reimbursement for the county's purchase of an in-vessel composting unit and another grant secured by the Arc of

Westchester from the Westchester Community Foundation. In addition to diverting food scrap from disposal and creating a useable compost end product, the collaboration helps to train developmentally disabled individuals in useful job skills in the environmental industry. The program also includes a series of environmental education seminars, including topics on food rescue and waste and composting.

North Carolina

- Cherokee Central School is a leader in "green" practices. The school has an active farm to school and has utilized the program to connect students to their Native heritage. In the garden, they've planted traditional Cherokee crops with edible, medicinal and craft uses. The garden is used as an educational center and hosts workshops for Tribal members, including composting workshops. The School has stabled vegetated rain gardens between parking rows and lots capture and filter run-off and bio-retention areas (shallow, landscaped depressions) to capture storm water for absorption and slow release.
- McGill Environmental Systems operates industrial-scale composting facilities. They have two operations which serve the Carolina coastal and Piedmont regions near Wilmington and Raleigh. The facilities specialize in composting organic materials, including food residues, from industrial, municipal and agribusiness sources. It manufactures soil products for erosion control, agriculture, and the professional turfgrass and landscaping industries.
- Sierra Nevada Brewing Company has been recognized locally, statewide, and nationally for its commitment to reducing our environmental impact. The company diverts 99.8% of solid waste from its facilities through reusing, recycling, and composting. Residue malted barley and hops used to make its beer are diverted for feed to local cattle and dairy farms. At its Mills River, North Carolina facility it partners with a local composting company and "closes the loop" by purchasing compost from the company for landscaping and gardening.

North Dakota

North Prairie Bison Ranch has been in the business of raising bison for over 20 years. Its other business,
 <u>Bison Compost</u>, uses bison manure to make Buffalo Earth™, a soil amendment for multiple applications.

Ohio

- Ohio Environmental Protection Agency hosts a webpage with resources relating to composting. The
 agency has also compiled a list of registered composting facilities in the state.
- Ohio State University's Ohio Composting and Manure Management (OCAMM) program provides extensive resources relating to composting. The University's Class II compost facility is the largest known in-vessel composting system at any college or university in the nation.
- All seven <u>Sycamore Community Schools</u> in Hamilton County are composting food scraps from their school cafeterias. Following a successful recycling and composting program pilot at Symmes Elementary, Sycamore applied for and received a \$34,000 Hamilton County grant to install waste sorting stations in the cafeterias of the six other school buildings. See the Sycamore Composting training <u>video</u> for more information.

Oklahoma

- Tulsa-based Compost Everything is a resource for information on composting.
- Oklahoma Cooperative Extension has a <u>fact sheet</u> on backyard composting and other compost-related publications.
- The annual Oklahoma Compost Conference convenes to discuss how compost can benefit local communities, businesses, and the environment.
- The Oklahoma Composting Council is involved in networking, research, training, public education, composting and compost standards, expansion of compost markets and the enlistment of public support.

Oregon

- Background composting information is provided by the City of Eugene.
- The Oregon State University Extension also provides home composting information.
- How to Compost for Business presents tips on getting started for businesses and restaurants.
- Association of Oregon Recyclers Tour Follows the <u>Food from Farm to Compost</u>.
- Food Waste for Delivery to Oregon Composting Facilities is a fact sheet developed by the State of Oregon.

Pennsylvania

<u>Dickinson College Campus Farm</u> is a student-run farm which composts campus food scraps. Its student
farm workers partner with facilities management to ensure that all campus food scraps are captured and
composted.

South Dakota

• The <u>South Dakota Department of Environment and Natural Resources</u> hosts a web page with resources relating to composting.

Tennessee

- The <u>City of Nashville</u> contains information on composting and offers bins and other compost-related products for sale.
- <u>Compost Nashville</u> partners with <u>The Compost Company</u>, the only licensed processing facility in Tennessee, to compost food scraps and make nourishing soil amendments.
- Other commercial composters in Tennessee include <u>Nature's Best Organics</u> and <u>Southern Nurseries</u>.
- The <u>Tennessee Department of Environment & Conservation</u> (TDEC) website provides extensive information on both commercial and backyard composting.

Texas

- <u>Compost Pedallers</u> provides food scrap collection services for households and businesses and transports them via bicycle to urban farms and community gardens in the Austin region for composting.
- The website of the <u>Texas Commission on Environmental Quality</u> includes <u>composting links</u> for professionals and homeowners.
- The <u>Texas Compost Council</u>, a State of Texas Alliance for Recycling (STAR) council, strives to promote the
 use and environmentally responsible production of compost by individuals, industry, and public entities.
 The Council has a <u>Master Composter</u> Course and hosts the annual <u>Texas Compost Council Summit &</u>
 Training.
- <u>Texas A&M AgriLife Extension Service</u> has a food scrap composting <u>resource</u>.
- The <u>Texas Center for Local Food</u> provides education and technical assistance to support rural economic vitality based on Texas agriculture. The nonprofit organization promotes efforts which work toward creating a <u>sustainable local food system</u>, which is an economic network in which food production, processing, distribution, access, consumption, and resource/waste recovery (composting) are tied to a geographic region.

Utah

- Utah State University Cooperative Extension has published a Guide to Backyard Composting.
- Since 2010, <u>Ecoscraps</u> has collected over 225 million pounds of food waste from retailers across the United States. Its compost and other garden products are available nationwide.

Vermont

- Central Vermont Solid Waste Management District represents eighteen towns in three counties in Central Vermont. All of the District's communities have populations under 10,000; all but three are under 5,000. The District aims to help member town residents manage food scraps where they are produced—at home—through educational outreach and sales of compost bins and the Green Cone™.
- Vermont FEED (Vermont Food Education Every Day) fosters awareness about healthy food, good nutrition, and the role of Vermont farms and farmers in helping sustain a healthy



- community. Farm to school activities incorporate local and seasonal foods into school meals, helping to build community and healthy opportunities for students, while also resulting in reduced food waste when students are engaged in eating local foods. Its website hosts Farm to School resources, including school gardening information.
- The <u>Vermont Master Composter</u> program is managed by the University of Vermont Extension Master Gardener Program with financial and technical support from the Vermont Department of Environmental Conservation Waste Management Division. Courses include food scrap composting and community composting. Students are required to complete community volunteer work in order to be certified.
- The <u>University of Vermont Medical Center</u> in Burlington <u>composts</u> more than 400 tons of food scraps and compostable foodservice items each year.

Virginia

- <u>Black Bear Composting</u> in Crimora (population 2,209) was founded in 2010 to play a role in organics recycling in Central Virginia. The company collects food scraps and other organics from area grocery stores, restaurants, schools, and other businesses. Black Bear also provides residential composting service to the Charlottesville, Crozet and Harrisonburg areas.
- The <u>Central Virginia Waste Management Authority</u> has information on <u>composting</u> of food scraps and other organics. They also host a <u>composting board</u> of educational resources for composting at home on Pinterest.
- <u>Covered Bridge Organic, Inc.</u> sells compost bins and related products and provides composting
 information. The company partnered with the Central Virginia Waste Management Authority to help
 citizens compost at home and sells home composting bins at reduced rates to residents of the thirteen
 communities served by the Authority.
- <u>McGill Environmental Systems</u> operates industrial-scale composting facilities. Their facility near Richmond is the largest enclosed composting facility in the state. The facility specializes in composting organic materials, including food residues, from industrial, municipal and agribusiness sources. It manufactures soil products for erosion control, agriculture, and the professional turfgrass and landscaping industries.
- <u>Natural Organic Process Enterprises</u> (NOPE) works with companies and institutions throughout central
 and eastern Virginia to develop food scrap and organics recycling programs, providing collection services
 and training.
- Royal Oak Farm, LLC in Evington (population 8,110) owns and operates the largest composting operation in Virginia, capable of handling more than 500 tons per day of food scraps, wood waste, manure, sawdust, and, soiled paper. It hauls organics from businesses, industries and municipalities throughout the state. Royal Oak Farm produces a variety of compost products, marketed under the Blueblood™ product line.
- <u>Veteran Compost</u> in Fairfax (and Aberdeen, MD) has a mission: employ veterans and their family members
 and turning food scraps into high-quality compost. The company provides residential collection offers
 collection service for residential, office, and commercial customers in DC, Northern Virginia, and the
 Maryland suburbs, as well as special events.

- The <u>Virginia Green Suppliers Network</u> (VGSN) has a directory of <u>green products and services</u>, including composting services.
- The <u>Virginia Cooperative Extension</u> developed a <u>Mid-Atlantic Composting Directory</u> that provides contact information for service and equipment suppliers, along with sources for information and education. It also has composting publications, including <u>Composting Your Organic Kitchen Wastes with Worms</u>, <u>Backyard Composting</u>, and <u>Compost. What is it and What's it to you?</u>.

Washington

- Auburn School District hosts student-led "Green Teams," voluntary environment stewards in school, at home, and in the community, and work to promote environmental sustainability. All fifteen of the District's schools have Green Teams who work to conserve resources in multiple ways, including lunchroom food scrap composting and vermicomposting.
- <u>Boston Harbor Elementary</u> located in a rural area of Thurston County, participates in the County's "Food to Flowers" Food Waste <u>Composting</u> <u>Program</u>. The school uses an onsite (in-vessel) Earth Tub for composting
- <u>Cedar Grove Composting, Inc.</u> located in Woodinville (population 10,938) composts more than 350,000 tons of residential and commercial yard and food waste annually at its two compost operations. The company has conducted numerous testing on compostable serviceware products, and hosts <u>acceptable products</u> webpage.
- The <u>City of Seattle</u> website hosts composting guidelines and other resources.
- Learn to be a Master Composter with **Seattle Tilth** and discover other compost-related resources.
- <u>Thurston County's Food to Flowers Program</u> is a school composting program. Each year, the 19 schools in the County and more than 9,000 students participate in the program, diverting more than 150 tons of food waste and soiled paper from the landfill to be composted
- The <u>Washington Department of Ecology</u> website features a range of resources, available grants, and other
 information. It also contains a list of licensed <u>compost facilities</u> in the state, as well as a <u>directory</u> of
 compost operations in each county.
- The <u>Washington State Recycling Association</u> is a nonprofit membership organization that has been dedicated to supporting waste reduction, reuse, recycling, and composting in Washington since 1976.
- <u>Washington State University</u> Center for Sustaining Agriculture and Natural Resources hosts a number of composting publications.
- Whatcom County offers composting guidelines and other resources.

Wisconsin

- <u>Earth Stew Composting Services</u> offers food waste recycling services for households and businesses in the greater Madison area.
- <u>Wisconsin Department of Natural Resources</u> hosts a webpage featuring extensive resources relating to composting.

Wyoming

- The <u>University of Wyoming Extension</u> has published a guide on backyard composting.
- <u>Terra Firma Organics</u> diverts more than 8,000 tons of waste from landfills each year and turn it into compost and other premium landscaping materials.

Anaerobic Digestion

Anaerobic digestion is increasingly being looked at as a potential method for handling organics, particularly food scraps, manure, and biosolids. The process creates relatively minimal odors if done properly, and generates energy to offset costs. Anaerobic digestion ("AD") uses a series of processes in which microorganisms break down organic material in the absence of oxygen. AD is employed on a large scale throughout Europe, as well as on large farm operations and at a number of wastewater treatment facilities in this country.

AD facilities for processing food scraps are increasing around the country. To be cost-effective, relatively high material volumes are necessary for operations. Thus, facilities near urban areas or in conjunction with waste water treatment facilities are typically employed for handling food scraps. Rural and agricultural areas with large dairy or swine operations can potentially partner to operate a digestion system that could handle at least commercial food processing wastes. Smaller scale anaerobic digestion systems can be more adaptable to material generation needs at distribution centers for retail food operations, and are also more economically viable.

National

- <u>American Biogas Council</u> is a national organization whose purpose is to develop the American biogas industry in order to create jobs and environmental sustainability and independence.
- <u>US EPA Anaerobic Digestion webpage</u> hosts information about how anaerobic digestion works, its benefits, and the types of anaerobic digestion facilities. Anaerobic Digestion Tools and Resources include an <u>Anaerobic Digestion Data Collection Project</u> and <u>Co-Digestion Economic Analysis Tool</u>. Its publications include: <u>Anaerobic Digestion and its Applications</u>, which summarizes current applications of AD systems to achieve various environmental goals and <u>Food Waste to Energy: How Six Water Resource Recovery Facilities are Boosting Biogas Production and the Bottom Line</u>, a report that contains case studies from six water resource recovery facilities and their experiences with co-digestion of food waste to increase energy production.
- <u>Institute for Local Government Sustainability</u> developed a document, <u>Converting Waste to Energy: How to Make it Happen in Your Community</u>, about anaerobic digestion and some communities who have built digesters.
- The <u>US EPA AgSTAR</u> website contains anaerobic digester <u>permit requirements</u>, both federal and state specific and the AgSTAR National Mapping Tool.

Colorado

• The anaerobic digestion system of the <u>Heartland Biogas Project</u> converts food waste, organic feedstock, and dairy cow manure into raw biogas.

Connecticut

The <u>Connecticut Department of Energy and Environmental Protection</u> (DEEP) website has <u>Anaerobic Digestion</u> resources, including case studies and <u>permitting information</u> for siting an AD facility in the state, as well as applying for <u>pre-application assistance</u> from DEEP. It also maintains a list of <u>Permitted Anaerobic Digestion Facilities</u> in the state.

Florida

 Palm City-based <u>Lakepointe Environmental Group</u> manufactures water treatment equipment, including anaerobic digesters for the production of methane from organic material. Harvest Power operates <u>Harvest Energy Garden</u>, an anaerobic digester that processes 130,000 tons per year of biosolids, fats, oils, grease, and food scraps in Lake Buena Vista, including food scraps from nearby Disney World.

Indiana

• <u>Purdue University</u> partnered with the <u>city of West Lafayette</u> on its state-of-the-art Wastewater Treatment Plant to process more than 2000 pounds per week of pre- and post-consumer food scraps from Purdue University's residence halls and dining courts to produce energy used to augment the plant's electricity usage. The digester also allows the city to convert fats, oils, and grease ("FOG"). The innovative waste-to-energy treatment system reduces the facility's overall operating and maintenance costs, reduces the carbon footprint of the community, and diverts waste from the landfill.

Maine

- Exeter Agri-Energy (EAE) developed a partnership with Stonyvale Farm, a 5th generation dairy farm in Exeter, Maine (population 1,092). EAE installed anaerobic digesters on the farm in 2011 to help with manure management and to help diversify revenue through manure conversion to biofuel. The company soon recognized the potential for incorporating food waste into its systems and created Agri-Cycle to provide collection services for food scraps. Both EAE and Agri-cycle continue to grow. The company now operates two digesters turning food scraps and manure into electricity and provides collection services for grocers, businesses, institutions, and communities around New England. Stonyvale Farm uses the liquid digestate from the process as fertilizer on crops and the solid fraction of the digestate is made into bedding for its cows.
- <u>Unity College</u> (in Unity, Maine, population 2,099) is a leading sustainability science college and also puts their studies into action through numerous sustainability programs. These include collection of food scraps in its <u>campus dining halls</u> for processing at AgriCycle Energy, an anaerobic digester facility in Exeter, Maine.

Massachusetts

- Barstow's Longview Farm in Hadley (population 5,250) processes more 14,000 tons of food waste each year from food manufacturers, processors, and supermarkets, as well as, more than 9000 tons of manure a year from the farm. In partnership with Vanguard Renewables, the farm-based anaerobic digester converts the energy potential in farm and food waste into electricity, heat, and fertilizer. A member of the Cabot Creamery Cooperative, the farm supplies Cabot with milk; Cabot supplies the farm with the organic byproducts from butter and milk production; and, the farm sends power back to the Cabot plant, making the operation a "closed loop supply chain." The digestate by-product is used as fertilizer for the farm's hay and corn fields.
- <u>Casella Organics</u> operates the first anaerobic co-digester in Massachusetts at Jordan's Dairy Farm in Rutland (population 7,973), co-digesting dairy manure produced by the host farm and food residuals diverted from food processors.

Michigan

• Fremont (population 4,081), is home to a <u>Novi Energy anaerobic digester</u> designed specifically to handle 100,000 tons of food processing wastes that previously were landfilled. Much of the processing wastes come from a Gerber Baby Food plant, as well as other area food processors, organic residues and manure from agricultural operations, and restaurant grease. The plant employs 12 workers and has a 20-year contract with Consumers Energy to sell its electricity — enough to supply about 1,200 homes. The digestate, the material left behind, is used to fertilize 5,000 acres of corn crop.

Montana

 The <u>Huls Dairy</u> Digester produces methane gas from dairy manure slurry at a rate of 20 cubic feet per minute, 24 hours a day. The gas is used to fuel a 50 KW generator.

New York

The Cayuga County Soil and Water Conservation District located in Cayuga County (population 79,738)
 established a <u>Community Digester</u> to address manure management issues facing dairies in Cayuga County
 and neighboring counties. This model uses a central digester plant; approximately 35,000 gallons of
 manure are trucked in daily from local dairy farms and co-mingled with 8,500 gallons of food waste,
 delivered from local food processing plants. The project generates income from production of electricity
 and heat, sale of renewable energy credits, and tipping fees to cover its operational costs.

Tennessee

- The <u>Tennessee Biomass Energy Training Curriculum</u>, a 254-page document available for download, provides training on biomass energy to extension agents and local officials so that they may deliver this information to their stakeholders. The curriculum was developed through a Southern SARE grant and collaboration between Tennessee State University, the University of Tennessee, eXtension.org, and USDA-Rural Development.
- At General Mills' <u>Greek yogurt plant</u> in Murfreesboro, leftover Greek whey is combined with the plant's
 process wastewater to generate methane biogas, which is used to fuel a biogas engine that generates
 electricity.

Utah

• Wasatch Resource Recovery is Utah's only anaerobic digester dedicated to food waste diversion.

Wisconsin

 Since 2011, the <u>University of Wisconsin Oshkosh</u> has operated an on-campus commercial-scale dry fermentation anaerobic biogas system.

